

Campus Sustainability Discourse: A Multimodal Analysis of Pakistani Higher Education Institutions' Websites

By

Noureen Naz



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Campus Sustainability Discourse: A Multimodal Analysis of Pakistani Higher Education Institutions' Websites

By

Noureen Naz

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Submitted By: Noureen Naz

Registration #: 628PhD/Eng/F16

Doctor of Philosophy

Degree name in full

English Linguistics

Name of Discipline

Dr. Khurram Shahzad

Name of Research Supervisor

Signature of Research Supervisor

Dr. Farheen Ahmed Hashmi

Name of HoD

Signature of HoD

Prof. Dr. Muhammad Safeer Awan

Name of Dean (FAH)

Signature of Dean (FAH)

Maj Gen Shahid Mahmood Kayani HI(M), (Retd)

Name of Rector

Signature of Rector

Date

CANDIDATE DECLARATION FORM

I Noureen Naz

Daughter of Muhammad Kafeel Ahmed

Registration # 628-PhD/Eng/F16

Discipline English Linguistics

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ABSTRACT

Thesis Title: Campus Sustainability Discourse: A Multimodal Analysis of Pakistani Higher Education Institutions' Websites

This study inquires into the way in which different types of multimodal text have been utilised on the websites of Pakistani universities to communicate campus sustainability discourse. The study is exploratory in nature. In it, the static and dynamic data have been explored in terms of the verbal and visual signifiers of the text from both the public and private sectors through a mixed-methods approach. The methods have been used to see the signifiers used most frequently as 'frames' that connote the three selected themes of campus sustainability discourse. Multimodal discourse analysis was the main method used for analysing the data that was explored through the techniques of qualitative and quantitative content analysis. The content analysis was done qualitatively through describing and analyzing data by focusing on the framing of verbal and visual data according to the selected themes of campus sustainability discourse while the quantitative content analysis was done through quantifying the frequencies of the most used verbal and visual signifiers in different modes and outlining the most frequent signifiers as 'frames' used in this discourse. It was found that different mode combinations were used in the static and dynamic text for creating such discourse. At least 20 visual (verbal and nonverbal) signifiers were common in both types of text in the public and private sectors. The most frequent verbal signifiers framing the campus sustainability discourse were also outlined. The highest frequency of visuals was found to be under the category of 'Nature' used more in the public sector text of static nature, while it was the private sector in the dynamic text that used it more. The key word 'research' was the most used in the verbal signifiers of both static and dynamic text in both sectors. The study revealed different types of verbal and non-verbal signifiers used in both public and private sector and also the highly frequent common signifiers in these sectors which highlight the trend of using them on the websites of Pakistani higher education institutions to communicate their campus sustainability discourse.

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ABBREVIATIONS/ACRONYMS

Following are some of the abbreviations or acronyms used in the descriptions or tables of this study

1. P- promotional
2. G- greening
3. SS- Sustainability Sciences
4. ESD- Education for Sustainable Development
5. EFS- Education for Sustainability
6. CSD- Campus Sustainability Discourse
7. HE- Higher Education
8. HEI- Higher Education Institutions
9. SD- Sustainable Development
10. SDGs- Sustainable Development Goals

DEDICATION

After the immense help from Allah Almighty, this thesis is dedicated to my parents and siblings who are always there to motivate me and pray for my success.

CHAPTER 1

INTRODUCTION

Language is one of the main sources of sustainability to any society's ecological system. Through verbal and non-verbal modes, it conveys global or societal values, codes, belief systems, laws, and norms for maintaining better sustainability. A discourse for and about sustaining one's ecology is important for protection from any disastrous effect in the future.

Ecological sustainability is one of the key topics of debate in today's world. Protecting the natural environment integrated with economic and social development is the biggest challenge, and the social communities take it as a serious objective to maintain their ecological balance and development. 'Sustainability' is important in the current world scenario, where we see chaos and balance largely emerge due to many social and academic factors. Ecological discourse has many areas and dimensions, and one of them is the idea of 'sustainability' in ecology, as Savelyeva and Park argue:

Sustainability is the youngest sibling in the ecologism family. It is, perhaps, the simplest among ecological discourses, and it has become popular since the 1980s. This integrated and integrating discourse appears reasonable and inclusive, as it covers environmental concerns at local and global levels and requires practical movements toward a gradual change in relationships with nature" (2012, p. 185).

This endorses the idea that the concept of 'sustainability' is part of 'Eco-linguistic discourse' and the themes of this concept are pertinent to the linguistic repertoire. For such discourse to get highlighted, it is paramount to explore it in society's educational institutions as they are the centres of initiating and advancing the discourse of sustainability in their ecology.

1.1 Sustainability

The term ‘Sustainability’ is multidisciplinary in nature. The dictionary meaning is “The ability to be maintained at a certain rate or level” (sustainability, 2017). Sometimes, it is defined as “a socio-ecological process characterized by the pursuit of a common ideal” (Wandenberg, August, 2015). The social and ecological ramifications are mixed in such a discourse. Simply defining, it is the maintenance of the dynamic balance of the different elements that are part of any ecosystem. Maintenance of the balance in human life is important for survival and progress as "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development , 1987, p. 43). There are various categories in which sustainability has been analyzed. Generally speaking,

Sustainable development has three components: environment, society, and economy. If you consider the three to be overlapping circles of the same size, the area of overlap in the center is human well-being. As the environment, society, and economy become more aligned, the area of overlap increases, and so does human well-being. As the environment, society, and economy become more aligned, the area of overlap increases, and so does human well-being” (McKeown, 2002, pp. 7-9).

This shows that this concept involves the well-being of the whole ecology, and the above mentioned three main pillars are the essential constituents which are equally indispensable for a better future.

It is, therefore, the responsibility of every individual of the society to think in this way as experts believe “sustainability to be a paradigm for thinking about a future in which environmental, societal, and economic considerations are balanced in the pursuit of development and improved quality of life” (McKeown, 2002, p. 8). It can be understood, in simple words, as the discourse of ‘future development and life quality’.

As a concept, the term ‘sustainability’ has been defined in various ways and contexts, both semantically and semiotically. Although it carries the denotative meaning i.e. ‘survival, organisation, durability, or stability’ in various discourses, it still remains an empty signifier since its meanings are modified when used in different contexts of foci.

Though it is currently used most widely throughout the world in all the scientific fields especially in the sciences involving environment, still “evolution of such a concept is a difficult exercise” (Leal Filho, 2000, p. 9) and “Defining sustainability is among our age’s most pressing translational research issues (Shi, Han, Yang, & Gao, 2019 as cited in Raza, et al., 2023, p.3). The reason may be as it is taken as too abstract in meaning, unowned or have hidden agency, too broad, unprofitable, and unscientific (Leal Filho, 2000, pp. 14-15). Generally, it is taken to be as a process to maintain balance in any ecology. So, the term ‘sustainability’ is a very neutral term that seeks to balance and maintain life in an agreeable way. The abstraction of the term lies in the diverse ways and contexts in which achieving balance is pursued. The problem of understanding arises when there are different interests or stakeholders whose priorities or focus coincide with each other. It also varies with respect to various disciplines and “the even more ambiguous phrase “sustainable development” has been added to this list. There is a shortage of precise, simple definitions in the literature on sustainable development” (Raza, et al., 2023, p. 3). Sustainability has been nominalized and modified in a number of ways and so is the case with ‘sustainable development’ with multiple interpretations (Raza, et al., 2023; O’Connor & Airey, 2007; Palmer, Cooper, & Van der Vorst, 1997).

1.1.1 Sustainability and sustainable development

‘Sustainable development’ is an offshoot of the concept of ‘sustainability’. Introduced for the first time by the UN general secretary Maurice Strong and shared widely by Ignacy Sachs (1993), the term ‘Eco-development’ was its forerunner (Barbosa, Drach, & Corbella, 2014, pp. 2-3). These terms are largely defined by the goals for development to create a sustainable ecology. The 17 development goals outlined to achieve sustainability in the UN “address the three facets of development: economic growth, social inclusion, and environmental sustainability” (Raza, et al., 2023, p. 4).

Different criteria and contexts have been set up to define ‘sustainable development’. These criteria were mostly related to economic growth, environmental safety, progress (Du Pisani, 2006; Kidd, 1992), ecological capacity, technology, biosphere whereas some focused on the processes frameworks or nature of tasks to develop e.g, on the needs, resources/ means and ends, intricacy and limits (Quental, Lourenço, & da Silva, 2011). Sustainable

development is deemed as providing sustainability for future generations through offering principles and solutions for environmental and societal problems and positive change. Though the concept of sustainability refers to maintenance and durability of the system but it should also be noted that human society's true nature that is changeable, adaptive and interactive mainly with the environment which is itself very complex and cannot remain static for a long time (Bossel, 1998; Barbosa, Drach, & Corbella, 2014, p. 5). Consequently, Jabareen (2008) outlined seven sources to define the development to be sustainable: "ethical paradox, equity, global agenda, eco-form, utopia, integrative management, and natural capital stock" (Gibson R. , 2000, p. 11 as cited in Waas et al. , 2011, p. 1640).

Some define sustainable development on the basis of certain principles of 'sustainability' e.g. (Gibson R. , 2000; Gibson, Hassan, Holtz, Tansey, & Whitelaw, 2005); the principles based on certain qualities like "normativity, equity, integration and dynamism" (Waas et al. , 2011, p. 1645) and the "sustainability principles of the Earth Charter ... (1) respect and care for the community of life; (2) ecological integrity; (3) social and economic justice; and (4) democracy, nonviolence, and peace" (Waas, Hugé, Verbruggen, & Wright, 2011, p. 1653).

There is an observation that 'sustainability' is a term used in the academic, social, and private sectors emphasising the balanced survival of the human race with the environment (Robinson, 2004) while the business and government sector generally uses the term 'sustainable development' emphasizing the 'process of development' through economic growth (Hector, 2014, p. 12) as "Often, 'sustainability' is thought to represent some long-term goal and 'sustainable development' a means process by which to achieve it" (Hector, 2014, p. 7). The notion of 'sustainability' was also found to have the elements of Romanticism which highlights the non utilitarian approach of nature's sacred and harmonious relationship with mankind (Hector, Christensen, & Petrie, 2014, p. 8). This element is missing in the concept of 'sustainable development'.

Alternatively, the term is still vague for many, and this makes it vulnerable being used in various discourses, especially based on a society's economic and political interests and orientations (Sachs I. , 1997; Barbosa, Drach, & Corbella, 2014, p. 5). Initially, the term sustainability focused on the biological sciences, advocating the maintenance of natural resources (Acselrad, 1999 as cited in Barbosa, Drach, & Corbella, 2014, p. 5).

Gradually, it was orientated toward future insights and the dimensions like: material, environmental, ecological, social, cultural, legal, economic, psychological and political (Bossel, 1998 as cited in Barbosa, Drach, & Corbella, 2014, p. 6). Perspective-wise, SD governs social, technological, and environmental aspects (Edwards, 2009).

Conversely, the contradiction in meanings occurs due to the conventional notion of development which picks the growth of economy and production as the deciding factors that differentiate a developed country from a developing country (Barbosa, Drach, & Corbella, 2014, p. 9). More confusions occur in the perception of these concepts because “the contradictions of the concept of "sustainable development" are given mainly by contradictory definitions of the term "development" and also by the inaccuracy that comes to the term "sustainability" (Barbosa, Drach, & Corbella, 2014, p. 2).

One way to differentiate these terms is to take them as “sustainability encompasses systems and sustainable development looks towards human needs and their well-being” (Feil & Schreiber, 2017, p. 676). Another way is to see that distinction in terms of actions i.e. the process of sustainable development is facilitated by undertaking actions that are connected to technical, financial, managerial, and especially strategic skills, all aimed at attaining sustainability (Horbach, 2005; Dempsey, 2011 as cited in Feil & Schreiber, 2017, p. 676). In other words, the principles of ‘sustainability’ guide the process of ‘sustainable development’ (Feil & Schreiber, 2017, p. 676).

Sustainability is the ‘system’ and sustainable development is the ‘goal’ to improve the quality of this system. Particular goals is the common thread that ties together the use of the terms “sustainable” and “development” often as an inevitable collocation (Zaccai, 2002 as cited in Waas et al., 2011). In other words, “Sustainability measures the level of quality of this system to evaluate its distance from the sustainable. Sustainable development works with strategies to bring the level of sustainability closer to the sustainable human-environment system” (Feil & Schreiber, 2017, p. 667).

On the flip side, the term “sustainable” can be used single-handedly without the term “development” e.g., “sustainable agriculture”, “sustainable education”, “sustainable forestry”, “sustainable fisheries”, “sustainable business” and so on. In this case, the adjective usually refers to “sustainable development” and offers the possibility to integrate

the concept's fundamental principles into an array of application fields" (Zaccai, 2002 as cited in Waas et al., 2011, p. 1639).

However, sometimes a distinction is made between "sustainable development" and "sustainability". Some scholars assert that "sustainable development" is primarily about development/economic growth, whereas "sustainability" prioritizes the environment. The commonality is that both terms take into account environmental considerations. The difference is that the former refers to

"ameliorating" economic growth, taking into account the environment, whereas the latter is about "challenging" economic growth, focusing on the ability of humanity to live within the environmental limits of the planet (Robinson, 2004; Dresner, 2008). This debate remains unresolved regarding issues of "how" and even "whether" the terms differ (Gibson R. , 2000). Linguistically, this distinction seems obvious because otherwise the word "development" would be entirely superfluous, but politically, making a distinction drives a wedge into the strong international consensus for sustainable development" (Dresner, 2008 as cited in Waas et al., 2011, p. 1639).

Palmer, Cooper, & Van der Vorst (1997) cite David Pearce (1989) who "believed 'sustainable development' to be an oxymoron; that development as currently defined contradicts sustainable existence. This has prompted some commentators to revert to the original term 'sustainability' instead" (Palmer, Cooper, & Van der Vorst, 1997, p. 87). Due to this reason, the terms are still used as synonyms (Palmer et al, 1997; Hector, Christensen, & Petrie, 2014; Waas et al., 2011, p. 1639)). This is confusing as

"Sustainability and sustainable development are fuzzy buzzwords: terms that appear to encapsulate a discrete notion but which actually have multiple interpretations. Sustainability has come to mean different things to different people yet appears to unite them under what is actually a (falsely) shared banner. Like happiness, it is something everyone wants, but precisely what it encompasses varies between individuals, and even changes over time" (Palmer, Cooper, & Van der Vorst, 1997, p. 88).

The disagreement on the meaning of sustainability results in fuzziness, which actually compels us to agree on the common usage of sustainable development in our discourse (Palmer, Cooper, & Van der Vorst, 1997, p. 91) which is useful in promoting this discourse (Pezzey, 1989). The interchangeable usage may be because sustainability denotes a result or state in which the needs of nature and humans are equally fulfilled. At the same time, sustainable development is a process or means of achieving sustainability (Hector, 2014, p. 8).

Though these terms are different, they have become nearly synonymous which masks their underlying philosophical distinctions (Hector, 2014, p. 10). This is considered the real problem of semantics and semiotics in discourse. This also creates confusion in deciding upon the exact signifiers of the concept of sustainability in the verbal and nonverbal modes in various fields.

Management of the human environmental system is the absolute way to improve human well-being, and that is the theme of discourse in most of the discussions about the terms ‘sustainable’, ‘sustainability’, and ‘sustainable development’ (Adams W. M., 2006; Seager, 2008 as cited in Feil & Schreiber, 2017, p. 668). So, “the different visions of development also result in different governmental and non-governmental actions (Barbosa, Drach, & Corbella, 2014, p. 5). This implies that there would be differences in the definitions and visions of sustainability or sustainable development in the public and private sectors. For these reasons of confusion of perception and meaning for most people, this study is taking both these terms as synonymous and replaceable. So, the term ‘sustainability’ is synonymous with ‘sustainable development’ in higher education, i.e., campus sustainability’ in the current study.

1.2 Education and Sustainability

Educational institutions are one of the fundamental ecological units of a society. Making students aware of their environment, and creating a sense of responsibility is important at the very earlier stages of learning, but it becomes critically crucial at the higher education level. Universities play a major role in the development and sustainability of a society. Throughout the world, ‘sustainability’ has become a key concept in motivating research and coordinating the administration, faculty and students to work towards

environmental and energy challenges (Cortese, 2003). It is the driving motto of their social endeavors. The discourse of ‘sustainability’ in the education sector is about ‘sustainable development’. So, these terms have been used synonymously in this study.

The concept of ‘Education for Sustainable Development (EFS)’ follows the guidelines given by several United Nations (UN) declarations and initiatives, in which the whole decade from 2005-2014 was declared the ‘UN Decade of Education for Sustainable Development’ as it is considered a significant step towards the development of nations. This type of idea of sustainable development in the field of education is not without challenges and it is like “almost 40 years after these international declarations and signatories’ commitments, EFS remains marginalized and delimited to a particular discipline on campus of a lecture topic within a course” (Savelyeva & Park, 2012, p. 189). The idea of putting inter disciplinary content, teaching, creativity and value system is something that university campuses usually put in policies but do not employ practically which makes it indispensable to study the discourse related to sustainability.

1.3 Campus Sustainability Discourse in Pakistan

The collocation of these two words is a broad term which amalgamates multidimensional meanings that is

“Campus sustainability is a combination of two words: sustainability and campus. The word campus represents higher education institutions (HEIs) and universities. This combination includes a number of activities. For example, according to Emanuel and Adams (2011), these activities are: ecological, economic, institutional and energetic. Further exploration of these activities consists of sub-activities such as food and recycling, green building, transportation, endowment transparency, investment priorities, administration, student involvement, shareholder engagement, climate change and energy” (Emanuel & Adams, 2011 as cited in Bukhari, Gilani, & Waheed, 2020, p. 42).

Well-being is the core of all the meanings attached to this term, and “campus sustainability activities include the local, regional and global responsibilities to protect and enhance the health and well-being of humans and ecosystems” (Bukhari, Gilani, & Waheed, 2020, p.

42). It is the priority of countries throughout the world. Universities have a significant role in enhancing the vision of youth in matters of reform, transformations, practical work and sustainability measures.

Pakistan is a multilingual country with various kinds of physical and social environments. Being a third-world country, the concept of sustainability is gaining currency in all of its institutions, especially educational institutions. Pakistan has also signed the UN treatise on promoting and following sustainable goals (SDG, 2015-2030) for a better future. It has been observed that there is variation across different areas and levels of administration within the country, e.g., the public or private sectors, institutions, provincial administrations, international collaborations.

“The level of awareness as well as level of commitment towards the fulfilment of Sustainable Development Goals varies across the cities of Pakistan due to difference in literacy level. The commitment to achieve Sustainable Development Goals of the organizations across the selected cities varies according to the nature of the business, volume and the membership with the United Nations ” (Javeed, Khan, Rehman, & Khurshid, 2022, p. 478).

The contemporary world needs a framework for targeting goals to combat the pressing socio-economic and environmental challenges by 2030. For this purpose, 17 global objectives were adopted by the UN in 2015 as the Sustainable Development Goals (SDGs). To pursue them, Pakistan showed a viable commitment to the pursuit of these goals by endorsing it vigilantly through the Ministry of Planning, Development, and Special Initiatives at the federal level and the Parliamentary Secretariat founded for mainstreaming and localising them. To address the major issues and foster sustainable development, the preferences of particular SDGs in Pakistan in three categories.

Priority-I: SDG 2: Zero Hunger; SDG 4: Quality Education; SDG 6: Clean Water and Sanitation; SDG 7: Affordable and Clean Energy; SDG 8: Decent Work and Economic Growth; and SDG 16: Peace, Justice and Strong Institutions.

Priority-II: SDG 1: No Poverty; SDG 5: Gender Equality; SDG 9: Industry, Innovation and Infrastructure; SDG 11: Sustainable Cities and Communities; and SDG 17: Partnerships for the Goals.

Priority-III: SDG 12: Responsible Consumption and Production; SDG 13: Climate Action; SDG 14: Life Below Water; and SDG 15: Life on Land. (Ahmed I. , 2024)

University campuses are a major source of representation of this concept of environmental stability. The websites of universities reflect their particular notions of ecological sustainability in this regard. The need of the hour is to analyze such issues related to the environment and develop ways of representing and improving it.

1.4 Discourse of Sustainability in Public and Private Sector

Any discourse on sustainable development is incomplete without considering the type of institutional control surrounding that ecology. This variable cannot be overlooked in the education sector as it tells about their ‘focus’ or frames of discourses for the progress and well-being of that organization. For example, most institutions' mission statements consist of verbal frames pointing to their focus on sustainability themes. Some of the institutional theorists take “mission statements as symbolic artifacts” (Morphew & Hartley, 2006, p. 467). Studies have also shown that one important variable in producing that type of discourse is the type of administration or institutional autonomy e.g., public or private sector. Some of the notable patterns in mission statements concerning the type of institutional control were observed to be common e.g., more similarities were found to be in mission statements of institutions than the private institutions as

..... the use of like elements (e.g. civic duty/service or a commitment to diversity) by unlike - but similarly funded - institutions leads to the conclusions that mission statements are not used to provide direction or vision, but rather as icons to signal key external constituencies that the institution in question shares these groups' values and goals. Or, more simply, public colleges include mention of public service because, to ignore

this element, might call into question their very publicness” (Morphew & Hartley, 2006, p. 467).

This frame of ‘public service’ forms the main content of sustainability discourse, and this defines the verbal text framed in the mission statements of public sector institutions.

The verbal text about the universities, especially the mission statements having different frames of sustainability, needs to be looked into for funding concerns and different interest groups like the public and private sectors (Nejati, Shafaei, Salamzadeh , & Daraei, 2011). There might be affiliation or orientation towards certain religious, social, or cultural groups, or specific fields of study, inclusive or exclusive to some groups, class or gender, women, men, or military personnel (Lopez & Martin, 2018, p. 2).

The public and private sectors are important in producing and implementing policies, projects, and future goals. Concerning sustainability discourse, there is a significant contribution of both of these sectors. For communicating the same goals, they might have different orientations and resources as their mission statements “may reflect, rather than drive, the realities of these institutions' environments. These environments include the desires of their students and alumni (and taxpayers)” (Morphew & Hartley, 2006, p. 467). These desires take the shape of values and goals e.g., the notions of mission statements of ‘multiculturalism’ and ‘diversity’ which are progressive and also supported by the stakeholders holding these values.

It was also a common observation that the public universities’ mission statements contain the frame of ‘service’ that is the main feature of these institutions and it does reflect their environmental reality. This frame, on one hand, is a signifier of the theme of well-being; on the other hand, it signifies a sort of ‘unwillingness’ for more progressive ideas (Morphew & Hartley, 2006, p. 467). This reflects the institution’s values leading to its campus sustainability discourse.

Different signifiers or frames in the language represent the nature of institutional autonomy. The verbal language reflects this more explicitly, and some statements on websites are used to communicate specific messages by the institutions to show their orientation towards the main themes. The discreteness of public and private institutions is also reflected in the way verbal frames are construed, e.g., "civic duty/service". Arguments

have also been made on the interchangeability of phrases in certain texts on the websites, especially the mission statements. Though there are common shared verbal frames too great care is usually taken to compose such statements as they may mean differently at different institutions and “It also should be noted that though some language may appear generic to an outsider, it may well be charged with meaning within a particular academic community” (Hartley, 2002 as cited in Morpew & Hartley, 2006, p. 467).

The verbal and non-verbal discourse in the universities is reflective of their sustainable measures and orientations e.g., the frames emphasized by public and private universities suggest that their use of mission statements reflect the different challenges they face in their sector which shows that these sectors are, in fact, different referential worlds. Public institutions must show their association with funding agencies, sponsors, governing bodies, or authority groups. Sometimes, “it is often easy for citizens who are not attending college or do not have dependents enrolled at public universities to forget or lose sight of the economic development or social service role that public higher education institutions play” (Morpew & Hartley, 2006, p. 468). This supports the idea that those connected with private colleges do not know the role of social service or financial progress frames used by the public sector.

Public institutions have different levels of authority for decision-making of their different sustainability discourses as Sénit (2020) found the disparity as “While the negotiations on the Sustainable Development Goals involved more than ten million civil society voices and resulted in an agreement that claims to “transform our world” and “leave no-one behind” (p. 411), it was observed that the discursive representation was biased toward a progressive sustainability discourse. This points towards the idea that ‘sustainability’ is always one of the main orientations of universities’ official websites.

Discursive orientations are diverse in different sectors of the same ecology, and it has been observed that it “refers to the relative representation of competing sustainability discourses in the negotiations. Sustainability means different things to different people, and the concept of sustainable development has led to a diversity of discourses that legitimize competing sociopolitical projects” (Sénit, 2020, p. 415). The conceptual and thematic explanations of sustainability are not the same and vary in different contexts. The specified discursive style might be assessed by preferring one discourse over another by

focussing on the agents, an actor or a group of actors. It is done by counting the texts included in the studies with the criteria of actors (e.g., governments, negotiation partners, members of business community or civil society etc.) and the criteria of specific terminology of different discourses (Sémit, 2020, p. 418). These agents are the institutions or governing bodies, e.g., in the public and private sectors, that determine the way in which the discourse of sustainability is presented.

1.5 Website Discourse

Today's world is the world of internet and technology. Websites are the main source of giving information and presenting an organization or institution to its audience. They are a great source of disseminating their objectives of sustainability especially related to their culture and environment. Various campuses of universities reflect this in terms of their objectives and they mention that at various platforms e.g. in their official presentations, prospectus, academic forums, websites etc. Websites are the sites having multiple modes to represent different ideas and themes. Within the website discourse, there are signifiers of other types of discourses depending on the nature and purpose of creating it.

1.6 Multimodal Text

The mediums in the modes may vary a bit as 'Multimedia' has five major components like text, images, sound, video and animation (Asthana, 2008). It is important to focus on the text fully and 'visual literacy' helps in doing this as "Visual literacy concerns how meaning is made in the still and moving image texts. It is addressed in the Victorian Curriculum: English through the mode of 'viewing'..." (Visual Literacy, 2019). It involves all text types including web pages. This means that there is a whole range of text types that are multifaceted in terms of the modes involved to study and comprehend for visual literacy.

Text in multimodal form presents visuals in different ways and "Multimodal texts perceived through a visual channel belong to two classes: still visuals and moving visuals" (Pavlina, 2020, p. 10). These two classes or categories are fundamental in analyzing the multimodal texts.

1.6.1 Static or Still Text

The static elements like text and images etc. are still, fixed and unchangeable in nature. The text may be visual or verbal written text. The words are given along with images to explain or illustrate them. In static text, the words either give information or support an image or a video.

A still visual is not only the non-verbal text but also the verbal text that is visible to the audience as “The critical content analysis of still visuals reveals that modes employed in meaning making include verbal and non-verbal” (Pavlina, 2020, p. 10). These visuals carry several non-verbal sub-modes carrying various signifiers and themes such as “the layout and font belong to the graphical mode, pictorial components and photographs make the iconic mode and one more non-verbal mode is color” (Pavlina, 2020, p. 10). Different themes are embedded in these modes signifying different meanings.

1.6.2 Video as Dynamic Text

The dynamic or moving visuals have their peculiarities when presented in multimodal form, as the “moving visuals employ two media to transmit information: the visual channel and the audio one. TV interviews and televised debates rely on the verbal content of communication” (Pavlina, 2020, p. 10) where the audio-visual elements, i.e. the non-verbal elements are perceived visually, and the public opinion does shape and design it up most of the time such as posture, gestures, and facial expression. So, dynamic visual text is more complex and efficient in meaning making in terms of multimodal analysis.

In today’s world, websites have both static and dynamic visuals that create various types of multimodal combinations. Out of them, the most popular and widely spread is the contemporary presentation pattern of e-commerce websites displaying online products. Four types of presentation formats are very common. These are: “the static-picture format, the video-without-narration format, the video-with-narration format, and the virtual-product-experience (VPE) format” (Jiang, 2007, p. 478). These combinations of the main modes as well as the submodes interact together to create the text, which conveys meaningful signifiers to convey different themes and subthemes of a phenomenon in focus.

In the analysis of text, videos have different features than static visuals and one of them is “its ability to depict temporal visual change” (Jiang, 2007, p. 479). This interconnectivity of the ‘temporal visual changes’ and the ‘associated sound effects’ of the dynamic visuals gives ‘thoroughness’ as a peculiar feature of videos as the main modes.

Studies have shown that the multimodal aspect of the video mode has been distinctively studied compared to the other major modes. ‘Moving or dynamic text’ is a unique visual mode that has its own individual characteristics. In a study investigating the semiotic discourse of multiple modes (music, image/visual, and language) in digital video by Hull & Nelson (2005), these modes carry different effects as these effects enhance, emphasize, or de-emphasize certain meanings, giving rise to the themes. Another study about producing digital video by the youth “posited video/film as a mode in its own right. They suggested, “kineikonic” as the name for the mode, which refers to moving images, as well as filmic and cinematic practices” (Ranker, 2017, p. 198). The narrative experience is more powerful in emphasizing certain themes and subthemes to create an effective impact for the viewers.

Therefore, it is better to separate the dynamic text of video from the static text in the multimodal analysis as it is different and the embedded instability and incoherency of the video images signifies the frames, which are “best understood as “transformation image,” In film and photography, the individual frame or a sequence of frames embodies the media-specific characteristics; in video, the passages between frames and frame positions are central” (Spielmann, 2006, pp. 57-58). The transforming nature of visuals creates a more interactive context to create and locate the frames used for initiating a specific discourse that addresses the audience more emphatically through verbal and visual signifiers.

Static text is more reliable in the sense of its potential to be present for a longer duration on the website. Video is one of the preferred modes of promotion, marketing (Horváth, 2012) and presentation of almost everything, as the audience usually chooses a video over the written text if available on the same topic (Boman & Raijonkari, 2017; Aman & Hussin, 2018; Ali Batel, 2014). It is a common experience that when scrolling through a website, it captures attention quickly. As living beings, movement is the essence

of life, and we are prone to reacting to movement, especially our eyes. So, a video appeals to this sense too.

The video mode is itself an interactive mode, and it is successful in eliciting a cognitive response, which sometimes, results in a physical action too, e.g., reacting, following, liking, commenting, and sharing videos. Videos are a brief, time-saving, and more comprehensible message and information seeking tool. Visuals can be processed much quicker in the brain than text. The human brain is not only more used to seeing visuals but is also better at interpreting them. Videos are a more memorable mode than the other modes. In contrast, the reading of written text or a mere visual without captions requires mental effort. It leads to regression, i.e. going back to re-read something, which can be frustrating when reading written text, but it requires lesser time and mental effort in the case of videos (Al-Seghayer, 2005). Also, there are visual learners who learn and memorise things by seeing them visually. They are also more helpful for people who are unable to see, read, listen, or write properly.

The websites using videos have also been more recognised and put into preference by search engine companies. They are ranked higher on the first page than text results. This significance of videos has led this study to observe it as another form of text, i.e., dynamic text, which includes multiple modes of discourse.

1.7 Signifiers in the Multimodal Text

The smallest unit of meaning is ‘sign’ in any semiotic system, which is anything that can be used to communicate or the object itself (the physical existence). It is nothing without a ‘signifier’ and ‘signified’ that combine together to make it whole (Semiotic Terminology, 2021). A signifier is the means of expressing a sign or “the form of any sign which may be verbal or non-verbal e.g., sound which makes up a word, words written on a page, an image or the pattern of shapes and colors which photographs use to represent an object or person, a facial expression etc.” (Bignell, 2006, p. 278).

The ‘signified’ is the next important part of the sign i.e. the ‘mental concept’ The perception of the receiver may be shaped by previous experience, knowledge, culture or own imagination which gives rise to the ‘signified’ of the sign as “... The signified is the concept which the signifier calls forth when we perceive it” (Bignell, 2006, p. 278). For

example, signifiers are the sound or letters of a word that immediately call forth the perception or concept evoked from it in the mind which is ‘the signified’. The sign, signifier, and signified are inseparable from each other to make and understand meaning.

1.8 Concepts in Multimodality

The concept of ‘meaning potential’ is one of the most significant ones while describing the function of the modes of communication, which are non-verbal as well as verbal, such as images, gestures, gaze and posture (van Leeuwen, 2005; Machin, 2007). This has been termed having ‘affordances’ that are particular to each of these modes (Gibson, 1977 as cited in Jewitt, 2009); and they exist within the particular context, i.e., the ‘possibility’ of representation and expression through a particular mode (Kress, 1993). This meaning potential of the particular mode is shaped by the way of mode usage, its repeated and common functional use and meaning, and its contextual use in terms of social conventions (Jewitt C. , 2009, p. 24). The five important concepts in multimodality as outlined by Jewitt (2015) are: mode, semiotic resource, modal affordance, multimodal ensembles, and meaning functions (p. 71).

i. Mode: It is a meaning resource which was defined as “a set of socially and culturally shaped resources for making meaning: a ‘channel’ of representation or communication.....accepted examples of modes include writing, image, moving image, and sound, as well as speech, gesture, gaze and posture in embodied interaction.....” (Jewitt C. , 2015, p. 71). Static and dynamic texts use these forms of modes.

Although there are several modes and some of them are commonly accepted as the main modes according to the New London Group, five modes of communication are known as having primary significance i.e. “visual, linguistic, spatial, aural, and gestural” (Arola, 2014). These are broader categories that encompass several other modes within them.

Appeal to the senses is one feature that makes up a mode as Pauwels (2012) defined the term “mode” or “modality” as ‘channels of senses’ and among all the six modes of senses, the visual mode is the most comprehensive one (p. 250).

One view is that mode is basically either visual or auditory which is the aspect of a ‘medium’ as “Modalities quite often are also defined from the medium side. Thus one speaks for instance about images and texts, music and vocal and non-vocal sounds, though they all belong to the visual or auditory channel or mode” (Pauwels, 2012, p. 250). Thus, a ‘mode’ might be taken synonymously as a ‘medium’ to communicate something through signs embedded in them in broader terms.

Websites are a great example of how multimodal presentation works as

the multimodal nature of the internet too is in fact limited to two (super) modes: the “visual” and the “auditory”, ... However, the visual mode in a broad sense includes a wide variety of expressive systems that are often not readily considered as “visual”: the textual parts (have to be viewed or heard), typography, layout and design features. Likewise, the auditory mode (spoken or sung texts, music, noises) exhibits a growing diversity of aspects and applications and a corresponding importance in website communications” (Pauwels, 2012, p. 250).

This ‘audio+ visual’ combination is the most popular sub mode combination of modes on the multimodal websites.

ii. Semiotic resource: This resource is defined as “a means for meaning making that is simultaneously a material, a social and a cultural resource” (Jewitt C. , 2015, p. 71). For example, these resources are either the physiological apparatus, artefacts, materials or actions used for communicative purposes or they might be technological in which along with the material used for writing, the computer hardware and software are also included (van Leeuwen, 2005). Websites are one of the major ‘semiotic resources’ used in today’s world of communication. Such resources have a meaning potential, their past usage, and a set of affordances showing possibility of their usage in concrete social contexts with respect to the semiotic aspect of communication.

iii. Modal affordance: According to Kress, this type of affordance is “the potentialities and constraints of different modes-what is easily expressed, represented, or communicated with the resources of a mode, and what is less

straight forward or even impossible –and this is subject to constant social work” (Jewitt C. , 2015, p. 72). It is the affordance that becomes complex with the nature of modes, e.g., the mode of speech has further considerations like sequence of sounds, words. and time considerations (2015, p. 72). This complexity is found in the analysis of the potentialities of other modes too, like writing, visuals etc.

iv. Multimodal ensembles: It is a combination of modes as it was defined as “Representations or interactions that consist of more than one mode can be referred to as a multimodal ensemble.... several modes are involved in a communicative event (e.g., a text, a website, a spoken interchange)” (Jewitt C. , 2015, pp. 72-73). This multiplicity of modes is also present on the websites. Multimodal ensembles explain the choice of modes and affordances possible in a particular context. Websites offer a range of multimodal choices based on certain themes of the messages, and several combinations are possible to communicate or signify the frames.

v. Meaning functions: The functional theory of meaning plays an important role in shaping meaning as a sort of social action done as a result of modal choices and their combination into multimodal ensembles. When people communicate, there are three different but interconnected categories of meaning choices or meta-functions that are simultaneously made to express the meaning, i.e., content (Ideational), interpersonal, textual or organizational in nature (Jewitt C. , 2015, p. 73). Multimodality aims “to explore how these three interconnected kinds of meaning potentials are actualized through the grammar and elements of their different modal systems” (Jewitt C. , 2015, pp. 73-74).

Images hold a paramount position in visual and multimodal analysis. The grammar of the image is also intricate, as Paltridge (2012) explained certain elements that need to be taken into account in image analysis, as pointed out by various other studies, which can be summarized as perceptual or distance elements; point of view or perspective; and the elements of modes or frames, e.g., the lighting, color, and focus/visual focalisation of the shot (Feez, Iedema, & White, 2010) are also in the checklist of these elements. Also, elements of text like text placement, information value, the salience of the message to the

readers (Kress & van Leeuwen, 2006), and framing (Paltridge, 2012, p. 172) are the focus of multimodal analysis.

The focus shifts from a mode to a number of submodes integrated together to form the text to emphasize and highlight the themes intended in an effective way, as Paltridge (2012) further illustrates the strong interpersonal connection with the audience or readers as an image-text combination in the form of ‘intermodal complementarity’ which also involves salience and framing (2012, p. 172 as cited in Painter, Martin, & Unsworth, 2013). Intermodal integration is as important as intra-modal compatibility to complement and enhance the semiotic power, making the message more comprehensible and prominent.

1.9 Multimodal Sub- Modes on Websites

This research is overall analysis of the multi-modal discourse found on the selected websites for the purpose of related campus sustainability themes, which they signify implicitly or explicitly.

Multimodality is one of the ways to illustrate the communication practices involved in composing the messages, keeping in view the multiple modes or resources, i.e. textual, aural, linguistic, spatial, and visual (Murray, 2013). Communication is always a multifaceted process, and discourses are standard ways of particular groups in society in which language, images, and other forms of representation are used, according to Stibbe’s definition (2015, p. 22). As this study includes the various modes of representation, i.e. verbal language and all types of audiovisual forms, it is multimodal in nature. Multimodality, basically, focusses on the range of different modes to analyze language in different ways (Bezemer & Jewitt, 2010). As the data collected will appear in various modes of communication, “The research field has collectively been called, ‘multimodality’, where “multimodal” typically refers to the multiple modes (e.g. spoken, written, printed and digital media, embodied action, and 3-D material objects and sites) through which social semiosis takes place” (O’Halloran, 2009). Together, all these multiple modes make up the design of any visual as it was said by the American graphic designer Saul Bass (1965) that “design is thinking made visual” (p. 994) which also applies to websites where thoughts and themes are expressed in the verbal and non-verbal design as

“Design is, among other things, a vehicle of communication” (Bass, 1965, p. 991) and communication always carries some purposes and expressions to portray at some platform.

Websites have several multimodal signifiers to convey their message and present their themes explicitly or implicitly. In contrast to verbal signifiers, visual signifiers have a lot more scope to convey different meanings to the audience. The visual mode makes use of the signifiers through different means. So, it is important to understand their features and the effect of meanings. It should be made clear that the term ‘multi-modal’ has been used for the present research in terms of various modes of representation and not in terms of the technical mode affordance analysis.

1.10 Statement of the Problem

Sustainability is one of the key issues in today’s world of higher education discourse. It is the need of the hour to equip and empower individuals and societies with the awareness, knowledge, skills, and values required to create a sustainable world. For this purpose, education for sustainable development is currently an important concern for higher education institutions to play their part as agents of change. It is purported that higher education institutions, especially universities, can promote sustainability goals through various instruments, including curriculum, websites, documents, etc. Being a developing country, Pakistan is facing major challenges in terms of the sustainability of its higher education institutes and is in dire need of equipping its local higher education institutions with sustainability discourses. Campus sustainability is an important dimension as the four pillars encompassing social, cultural, economic, and environmental sustainability can be applied to any combination of the primary activities within a university, including education, research, engagement, operations, and the design of facilities.

Being one of the most highly populated countries in South Asia, Pakistan urgently needs sustainability at HEIs to solve economic, political, and social problems, as universities are the driving forces that contribute towards education, innovation, and development (Shah Bukhari, Said, Gul, & Ibna Seraj, 2022, p. 866).

There is a growing momentum in incorporating sustainability into the education sector, characterized by initiatives like education for sustainable development (ESD).

Higher Educational Institutions (HEIs) play a critical role in the society as the universities are a key element of the complex equation of sustainability discourse. They are the hubs of creating social change by deconstructing the already worn out rules or codes and by producing intellectuals, leaders and future makers. Their functioning matters to promote sustainability and their defuncting may lead to unsustainable development. For this matter, there is a lot of stress on the implementation of SDG's throughout the world in higher education and HEIs are making the “numbers of declarations/charters, partnerships and performance awards on ESD. At the same time, efforts at tracking the progress made by HEIs in their sustainability trajectory have yielded sustainability assessment tools (SAT)” (Findler, Schönherr, Lozano , & Stacherl, 2018). This involves public and private funding, accreditation agencies, international communication.

It is an agreed upon notion that the perception of ‘sustainability’ is something that challenges and questions the current infrastructure, paradigms, practices across various social and educational sectors which puts pressure on the institutions committed to sustainability to contribute effectively. Numerous obstacles, including challenges related to funding, environmental degradation, staff management, government policies, limited infrastructure, university governance structures, absence of a cohesive innovation system, industry collaboration, curriculum innovation, awareness of climate change, and the lack of campus greening efforts pose a threat to an effective discourse of sustainability. Hence, the need for HEIs to lead the movement for a sustainable society increases due to these obstacles. A meaningful contribution to sustainable development is only possible through an effective discourse in various modes.

The declarations/charters and partnerships were designed to provide guidelines or frameworks for HEIs to better integrate sustainability discourse into their systems. In particular, declarations, charters, and partnerships underscore the moral responsibility of universities to actively contribute to the development of sustainable societies. This discourse of commitment involves addressing issues that act as signifiers of campus sustainability discourse, such as environmental degradation, societal threats, and promoting sustainable production and consumption for both current and future generations.

In terms of sustainability progress, Pakistan is significantly behind several others in the Asian world (Butt, Lodhi, & Shahzad, 2020; Leal Filho, et al., 2022; Hinduja et al., 2023). There is a difference in the way the public and private sectors are dealing with this issue in Pakistan. In general, the public universities, as compared to the private universities, are supposed to have a moral obligation to embrace the signifiers of sustainability in their discourse because they are recipients of public funds, have non-profit status and their non-profit designation, and have an overarching responsibility to serve the interests of society. The perspective of sustainability is prone to definitional controversy, and that is what makes it questionable due to the way sustainability is integrated into the core functions of a university. Different themes have been outlined to signify the discourse of sustainability, and they are integrated through instructions or interventions in campus operations that address the issues of sustainability preferred by the institutions individually. Still, there are some common themes, e.g., waste minimization, energy consumption, low carbon buildings, preservation of biodiversity and natural spaces, facilities, and awareness programs. Additionally, such approaches serve as models of sustainability that influence the behaviours of staff, students, and local communities towards more environmentally conscious practices. The various categories of focus of the campus sustainability themes show that the level of commitment, presentation, employment, and fulfilment of the respective goals varies across different areas as well as the sectors (public/private) according to the nature of administration.

In this regard, it compels us to explore how our local higher education institutions are currently presenting the discourse through different modes on the above stated agenda and to what extent they meet the requirements of this discourse. The present study explores the modes or representations of such concerns and the prominent signifiers of themes or issues on the websites of selected Pakistani universities.

1.11 Research Objectives

- To enquire how campus sustainability discourse is presented via different modes and texts (static or dynamic) on the websites of Pakistani higher education institutions.
- To explore the prominence of campus sustainability discourse in terms of sustainability themes and goals on the websites of Pakistani universities in terms of the public and private sectors.
- To consider the role of the main mode of language and the sub-modes (verbal and non-verbal) communicating the themes of campus sustainability in higher education.
- To explore the common signifiers of sustainability discourse shared by the Pakistani universities of both sectors on their websites.
- To point out the differences in the use of signifiers in terms of SDGs and selected themes between both sectors.

1.12 Research Questions

The main questions and their corresponding subsidiary questions to explore in this context are given as follows:

Q1) What do the various texts reflect the campus sustainability discourse on the websites of Pakistani universities?

- i) How do the static and dynamic texts reflect the campus sustainability on the private and public sector websites of Pakistani universities?
- ii) To what extent do the different modes reflect the campus sustainability discourse on the various texts of the websites of Pakistani universities in both sectors?

Q2) How are the visual signifiers associated with the campus sustainability themes of both the private and public sectors on the Pakistani university websites?

- i) How are the verbal signifiers of the multimodal text of both the private and public sectors on the Pakistani university websites associated with the campus sustainability themes?
- ii) How are the non-verbal signifiers of the multimodal text of both the private and public sectors on the Pakistani university websites associated with the campus sustainability themes?

Q3) To what extent do these common signifiers of campus sustainability themes on the static and dynamic website text of Pakistani universities differ in the public and private sectors?

1.13 Significance of the Study

Universities are the learning grounds for current and future leaders. They have the potential to offer innovative solutions to some of our greatest global challenges through their research activities. Universities have immense spending power and can offer many opportunities to improve human and ecosystem well-being. This study is significant in many ways, as it will report the current situation of campus sustainability discourses in the Pakistani context. So, it will guide future studies in this field in terms of research regarding higher educational discourse. The government organizations, the Ministry of Education, the Ministry of Environment, etc. can make use of this study to assess the current situation and future measures. It will help the reviewers, policymakers, and administrators to analyze and improve their campus sustainability discourse in the Pakistani context. It will provide awareness to the teachers and students about campus sustainability discourse and guide them to initiate it effectively. As education for sustainability is a concept given by international organizations such as UNDP and UNESCO, it will also present a brief review of such discourse in Pakistan and provide information about this discourse in Pakistan among other countries in the world. Above all, it is effective for every person in the society as it is related to education and sustainability linked to one's ecology which is the matter

of public governance and citizenship. It can generate awareness about the campus sustainability themes and the ways of producing effective discourse on the websites.

1.14 Delimitation

The study is delimited to the official websites of only 12 universities as higher education institutions in Pakistan. Moreover, the concept of ‘sustainability’ for analysis will be delimited to only explore the selected three themes i.e. greening, sustainability sciences, and education for sustainability. The analysis is delimited to the most frequent results from a huge amount of data/ total results as they fulfil the objectives of the study.

1.15 Chapter Breakdown

The study consists of six chapters in total. The chapter headings and chapter breakdown is given as follows:

1. Introduction
2. Literature Review
3. Methodology
4. Data collection and Analysis
5. Findings and discussion
6. Conclusions & Recommendations

The first chapter introduces the topic, the main variables, key terms, the background/rationale of the study, the statement of the problem, objectives, research questions, significance of the study, delimitations, methods, and methodologies.

The second chapter is a review of the literature on the main variables related to the study and the previous work done on it. The chapter highlights the gaps in previous studies which this current study attempts to fill in contemporary research.

The third chapter i.e. “Research Methodology” showcases the research approach, methods, and research design used in the study, the research instruments for data collection and analysis, their rationale or the frameworks to execute them, and the procedure of the current study, etc.

Data Analysis is the fourth chapter that illustrates the process of analysis of the sample data, the findings, and the results drawn from the methodologies adopted. It is followed by the fifth chapter which highlights the main findings from the results drawn in the previous chapter and discusses the important outcomes.

The last chapter is named ‘Conclusion’ and includes the summary or inferences from the findings, recommendations, and suggestions for future research.

This chapter has given an outline of the overall plan of the study. It introduces the main concepts and key definitions of the study related to language and sustainability, the discourse of academic websites, approaches and themes of sustainable development discourse, its impact in higher education, multimodal texts and campus sustainability discourse on these websites. The chapter presents the research objectives, questions, delimitation, significance and the methodology briefly. In the end, it gives an overview of the study by giving chapter breakdown of the whole thesis.

CHAPTER 2

BACKGROUND & REVIEW OF LITERATURE

This chapter reviews and presents the background related to the topic of the study. It is divided into two sections. Section I highlights the main areas of campus sustainability discourse, its types and role in higher education, its relevance in linguistics, linguistic themes and signifiers, framing, and theoretical concepts used in the current study. First, the discourse of sustainability has been defined and discussed as stated by different scholars and theorists. Then, a relationship between the concept of sustainability, and its influence on sustainable development especially in terms of higher education discourse. Various types of this discourse in higher education have been highlighted. Further, these discourses have established a connection with the international horizon. Afterward, the discourse on the university websites has been discussed. The discourse of campus sustainability has been defined and different theoretical models were critically highlighted. The themes, frames, and signifiers were reviewed concerning the visual text of both verbal and non-verbal nature. The previous literature, which followed different methods of sustainability discourse analyses, has been highlighted. One of those methods i.e. multimodal discourse was reviewed and the concepts and theoretical models have been thoroughly reviewed separately in the second section.

Section II deals with the concepts of multimodal discourse, types of multimodal text, multimodal discourse analysis, the semiotic analysis involved in such kind of discourse, its signifiers and frames, the limitations and challenges of this research. The reasons and limitations of using this method and the detailed discussion of the theoretical or conceptual models have been thoroughly stated.

SECTION I- CAMPUS SUSTAINABILITY DISCOURSE

Communication for sustaining ecology is important for any human environment. As complex objects, languages are the medium of social interaction and the general communication of a given community for social relations and identifying themselves in relation to other humans speaking other languages. Keeping in view the worsening situation of global ecological crises, eco linguistics has a wide scope in producing significant theoretical and practical implications for creating a sustainable society. For example, Arran Stibbe's (2015) pioneering research in the discipline of 'Ecological Linguistics', and its impact in developing the theme of 'Education for Sustainability' in the disciplines of English and beyond, has highlighted many avenues of research in this field. His linguistic analyses of environmental discourses, and his seminal work on the discourse of sustainability as 'Handbook of Sustainability Literacy' have demonstrated how linguistics can address ecological issues, sustainability, and education. This interlinking of the areas of 'ecology', 'linguistics', and 'sustainability' is the very essence of sustainable development discourse.

Discourse in various forms i.e. verbal and non-verbal is important to be understood to preserve and procure such issues. Ecological criticism is the current basic focus of sustainable development discourse. The environment covers the overall context of society and environmental communication is a "planned activity, the purpose of which is to contribute to an improvement in resource conservation and environmentally sensitive practices within the society" (Nitsch, 2000, p. 222). Environmental discourse is one of the theme categories of sustainability discourse and that is where the concept of 'sustainability' takes its roots and develops in various other fields of life. Other fields e.g. economic, cultural, political, technological, social, educational, administrative, human, academic, etc.

Today's world is a world full of uncertainties and instabilities. The unsustainable economic and technological expansion has put the natural ecology in danger and words, like any species, are indispensable for its conservation. Through literature and language of ecological discourse, we can record the present state of instability and predict its future course. Engaging audiences through discourse can effectively shape the future of global

sustainability. There has been a discussion on the relationship between environmental degradation and language use in the explanation of the “Hallidayan tradition” of Eco-linguistics (Halliday M., 2006). Therefore, the concept is not new and forms the basis of many further social, academic, and ideological discourses.

2.1 Sustainability and Higher Education Discourse

Education is an essential tool for achieving sustainability. It is a widely accepted idea all over the world. The idea of educating for sustainability has been recognized by UN conferences, and “each conference also developed a series of requests for public awareness and understanding and identified the individual responsibilities and behavior changes that would ameliorate each issue” (McKeown, 2002, p. 10). Sustainable development discourse in education is the discourse of awareness, civic sense, and the assignment of responsibilities.

Higher education institutions play a unique and important role in society. At the higher education level, university campuses are a major source of representation for their concerns about ecological sustainability as “the current challenge of making progress towards sustainability poses a great opportunity for institutes of higher education to realize their role, and responsibility, as societal leader” (Cole & Wright, 2003). They have a great role in social change.

Other than public purpose, many institutional benefits exist in pursuing sustainability, Blackburn (2007) highlighted the benefits such as creating goodwill; employment prospects for sustainability; funding opportunities; conserving energy, etc. Such discourses are beneficial to the institution and they are important to consider in terms of the content as well as language and other semiotic resources. Language is interwoven through knowledge as ‘critical language awareness’ (Fairclough, 1992), these discourses are significant at different levels. Therefore, “a subtle combination of higher education, research, and life-long learning is necessary for a nation to shift to an information or knowledge-based economy, which is fueled less by imported technology and more by local innovation and creativity (UNESCO-ACEID, 1997)” (McKeown, 2002, p. 10). Discourse of innovation and creativity are the sub-discourses of sustainable development discourse in the campuses.

Globalization has changed the trends in many fields. With the advancement of technology and easy access to information, it is easy for the organizations such as higher education institutes to gain internationalization. Nowadays, higher education has been treated as “a globally traded commodity” (Morgan, 2010). To achieve excellence in quality, they promote their identities through their discourse through different mediums, and the discourse of ‘internationalization’ is, thus, strategically used by the institutions.

Websites are one of the most popular, quick, and accessible mediums for having a global discourse with the public. The rapidly changing world is changing our discourse in every field, and higher education is no exception. Today, “At the discourse level, the discourse known from the corporate world has affected higher education discursive practices. As a result, terms like “customers”, “clients”, “markets”, “corporate identity”, “mission statements”, “strategic plans” have been found in university discourse” (Connell & Galasiński, 1998 as cited in Hoang & Rojas-Lizana, 2015, p. 4). The corporate discourse is now part of higher education discourse, and the linguistic markers or signifiers are now part of academic discourse as well.

‘Marketizing’ is a sort of awareness to achieve sustainability through definite goals, and the role of business is the dominant core discourse in the sustainable development discourse (Dyllick & Muff, 2016; Ahmed & Khalidi, 2019). This leads to particular approaches to a sort of commercialized environmentalism, which conjoins consumerism to environmentalism making it ‘the corporate green advertising discourse’ (Liu & Liu, 2020, p. 1). Marketization in higher education also means “a process of rethinking the social, cultural, and economic roles of higher education and their configuration in national system of higher education” (Enders & Fulton, 2002, p. 362). This makes them significant enough to influence and be influenced by the above- mentioned elements. It not only promotes the institutions but also places the system of higher education in a particular ecology to configure the social, cultural, and economic participation of academia in the reformation of society. On the contrary, this commercialized marketization has taken up more than the required space on digital media in Pakistan, but this process of rethinking and configuring in the education system is still missing.

Many different ways have been adopted by the universities to market themselves as “Two traditional ways that universities used to market themselves are brochures and mission statements” (Hoang & Rojas-Lizana, 2015, p. 5). These are also the means through which universities express their sustainability concerns. Every university has a mission statement which is the framework on which all their sustainability goals, aims and efforts are developed. These aims are usually very carefully designed and well-discussed among the stakeholders before disseminating to the general public as

The language of mission statements reflects the type of universities (public versus private). The way universities represent themselves through mission statements is “normative and political” and their use of general terms fail to construct universities’ distinctive identities as well as their focuses” (Morphew & Hartley, 2006 as cited in Hoang & Rojas-Lizana, 2015, p. 5).

It is, therefore, worth endorsing that the variables of the public and private sectors are well manifested in such statements. On the other hand, the keywords used in such statements act as verbal signifiers of their main concerns and orientations toward campus sustainability.

In today’s world, institutional websites are a necessity to communicate with their audience, as they are the main sources of regulating admission and helping in the marketing practices of the universities (Hoang & Rojas-Lizana, 2015, p. 5). Universities try hard to create a distinguishing identity among their other competitors, especially in terms of public communication, and websites are one medium for them to do this so as to create a favourable impression on the audience. They spend a lot of time and resources to show their efforts towards sustainability, as the identity of a university is so important in establishing the discursive practices of the sustainability measures adopted by them as US universities spend a lot on designing and maintaining websites (Schneider & Bruton, 2004 as cited in Hoang & Rojas-Lizana, 2015, p. 5). This shows the importance and usage of websites by institutions for putting up their discourses on sustainability mainly for the purpose of promotion or information. The website discourse content is also one of the contributing factors in deciding the ranking of the university. Unfortunately, the lack of

resources or planning is missing for designing and maintaining the websites especially regarding the sustainability discourse in case of the Pakistani higher education insitutes.

2.1.1 Types of Sustainability Discourse in Higher Education

‘Different types of sustainability discourse in higher education are discussed briefly in the following lines.

2.1.1.1 Promotional Discourse in Higher Education

One of the most popular emerging discourses as a discursive tool for universities these days is the ‘promotional discourse’ which is the outcome of the upcoming integration into the European Union (Chiper, 2006). They use linguistic features and tone to promote their well-being or sustainability measures. ‘Professionalism’ is a signifier of sustainability and the main discursive tool of the corporate sector to promote themselves. Promotional discourse has become an integral part of campus sustainability discourse as it is part of “of professional and, to some extent, even academic genres that have influenced the essential nature and function of discourse in general in recent years, it has been the invasion of promotional values in most forms of discourse” (Bhatia, 2005, p. 213).

Sustainability is an allied concept in the phenomenon of marketing too. There is a type of marketing called ‘sustainable marketing’ that adopts sustainability strategically (Kumar, Rahman, & Kazmi, 2013; Säwe & Hultman, 2018). This alludes to the fact that marketing and sustainability go hand in hand with this approach. The social and environmental impact of the services or products of an organization is highlighted through it. Green or eco marketing considering only environmental impact also comes under this broader term which considers not only this type of impact but also social and economic impact (Chamorro, Rubio, & Miranda, 2009; Gupta, 2012; Peattie, 2001).

Sustainable marketing principles like societal marketing, consumer-orientedness, innovativeness, and a sense of mission marketing are essential repercussions of the idea of sustainability and the higher education campuses use them on their prospectuses and websites. They significantly impact the world while also increasing profit/sales, productivity, sustainable measures, and brand loyalty. Advertising and promotional discourse revolves around such sustainability themes as “with regard to the advertising

discourse, the concepts of energy saving and sustainable development are often found together, either implicitly or explicitly” (Fodor, 2012, p. 195). This suggests that most of the promotional discourse is also part of the sustainability discourse.

Moreover, the discourse of advertisement showing the well-being of the consumers intersects with the discourse of sustainability in many ways as the analysis at the linguistic level as it is constructed around two main themes of “(i) life comfort (ii) environmentally friendly technological progress that is beneficial to humans. The theme of life-comfort is based around terms such as ‘comfort’, ‘well-being’, and ‘quality’ which puts the subject (the consumer) at the heart of the message” (Fodor, 2012, p. 195).

This theme of ‘well- being’ is at the heart of sustainability discourse and such terms are mostly used in this discourse several times. Referring to the case of contemporary British university prospectuses concerning their discursive practices, Fairclough (Critical discourse analysis and the marketization of public discourse, 1993) concludes by saying that restructuring of boundaries takes place strategically and purposefully “between orders of discourse and between discursive practices; for example, the genre of consumer advertising has been colonizing professional and public service orders of discourse on a massive scale, generating many new hybrid partly promotional genres...” (p. 141). Therefore, promotional discourse is not purely promotional, and sustainable development themes are intermingled with it. However, it is a growing concern whether that promotional discourse contributes towards the betterment of lives in higher education institutions or not as the promotional content on websites may be exploitative and the real campus sustainability measures may be ignored.

2.1.1. 2 Inspirational Discourse

Fairclough (2003) talks about ‘inspirational discourse’ as a result of reflection of style in the discourse of ‘new capitalism’. This discourse emerges as the result of the spirit of innovation and change and according to him, seven skills are involved in this, and among these, the first three were: “i. ‘tuning in to the environment; ii. kaleidoscopic thinking; iii. an inspiring vision’) emanate from the ‘inspirational’ discourse” (2003, p. 125).

But these are not exclusive, as they themselves are part of other discourses, which are different discourses, e.g., the environmental tuning used metaphorically in technical discourse might give rise to a

discourse of personal relationships, perhaps a counselling discourse, ...; ‘kaleidoscopic thinking’ evokes perhaps popular psychology texts on creative thinking; whereas ‘inspiring vision’ would seem to emanate from a discourse of art criticism). So, the ‘inspirational’ discourse can itself be seen as an articulation of discourses” (2003, p. 126).

Inspirational discourse, is thus, reflective of the discourse of sustainability as well. Linked with values and ideals, this discourse is replete with the themes of sustainable measures and goals. Though SDGs serve to provide a framework for inspiration, they need to be effectively employed in the digital media of universities, especially in the Pakistani context.

2.1.1.3 Informative Discourse

The discourse on websites is mainly informative and information structure in linguistics conveys different themes to help in framing content in terms of a ‘formal’ approach, i.e., the structure focussing on a set of rules or constraints composing linguistic form, the relevancy influencing the choice of linguistic form, the grammatical or pragmatics interface, or cognitive representations guiding the linguistic form are some of its main elements (Arnold, Kaiser, Kahn, & Kim, 2013, p. 407). Consequently, it has grammar or pragmatics as its main feature to constitute the discourse, but relevancy to the choice of linguistic form is still required for a meaningful discourse.

The ‘categorical’ approaches direct towards topic or focus, which is either developed by or developed into frames as the previous knowledge combines with new knowledge in “different types of information-structural divisions (e.g. topic-comment; topic-focus; focus presupposition; rheme-theme; open proposition-focus)” (Arnold, Kaiser, Kahn, & Kim, 2013, p. 407).

Therefore, complete information becomes a theme to be conveyed as it provides the content and context to be searched. Specific expressions are also used, as shown in

another approach of ‘Gradient representations of information status’, which require “variations in referential expressions, which fall along a hierarchy of specificity, ranging from unstressed pronouns to highly specific expressions” (Arnold, Kaiser, Kahn, & Kim, 2013, p. 407). References provide frames and grammatical structures for information to be conveyed as themes.

Every discourse has a theme which repeats itself throughout the text. “Discourses tend to be thematically organized, so information that has already been mentioned is likely to be mentioned again” (Arnold, Kaiser, Kahn, & Kim, 2013, p. 408). Repetition gives a clue that a frame is to be repeated for the purpose of orienting the audience towards major concerns and ideas.

2.2 Discourse of Education for Sustainable Development

The significance of discourse for higher education has been endorsed and focused on by international organizations too. The UNESCO report initiated the idea that “Education for Sustainable Development (ESD) empowers people to change the way they think and work towards a sustainable future” (Education for Sustainable Development, 2018). From pedagogical point of view, “It is about including sustainable development issues, such as climate change and biodiversity into teaching and learning” (Education for Sustainable Development, 2018). ESD has been recognized internationally as an important constituent of quality in education. It has been included in the SDGs all over the world for the next 15 years and it is the responsibility of UNESCO to coordinate the Global Action Programme (GAP) on ESD (Education for Sustainable Development, 2018).

The concept of education for sustainable development is quite vast and manifold as the UNESCO clarifies:

“ESD is more than a knowledge base related to environment, economy, and society. It also addresses learning skills, perspectives, and values that guide and motivate people to seek sustainable livelihoods, participate in a democratic society, and live in a sustainable manner. ESD also involves studying local and, when appropriate, global issues. Therefore, these five (i.e., knowledge, skills, perspectives, values, and issues) must all be

addressed in a formal curriculum that has been reoriented to address sustainability” (McKeown, 2002, pp. 17-18) .

This points towards the key content words that are used mostly in the campus sustainability discourse and constitute the major subthemes. The above definition of the discourse of sustainability in the education sector outlines the main themes and subthemes which include something more than the discourse about environmental and ecological sustainability. It takes into account the skills, globalization and glocalization, lifestyle, responsible citizenship, viewpoints, and values integrated into the curriculum and academic settings by helping in the orientation of vision and curriculum design concerning these areas of the campus sustainability discourse.

2.3 Linguistics and Sustainability Discourse

Discourse has various linguistic dimensions e.g. syntactic, semantic, semiotic, and lexical features. Terms associated with sustainability discourse are noticeable too as “Certainly terms associated with sustainability – such as resilience, robustness, diversity, and precaution – are all seen more frequently in policy debates these days” (Stirling, 2007 as cited in Scoones, 2007, p. 594). In the realm of intellectual, institutional, and political fields, all these above-mentioned terms have a direct association with ‘sustainability’ and this will continue to be part of our social discourse in the future too “Future buzzword archaeologies will no doubt trace transmutations, adaptations, and shifts, but in my view at least, sustainability – and the wider agenda that it inspires – is here to stay” (Scoones, 2007, p. 594). There are several other terms, keywords, and buzz words too which are associated with sustainability discourse, and they are used concerning the themes and subthemes.

Many attempts have been made to categorize sustainability discourse in terms of development. One of them was given by Huge *et. al* (2013) who presented a synthesized typology of the elements that constitute sustainable development discourse in terms of language. This typology was composed by following the works of some other scholars who explored this type of discourse thoroughly in terms of disciplines and fields other than language like business, ethics, management, technology, etc. and navigated or modified the theoretical aspects of the concept and themes, like Neumayer (2003),

Robinson (2004), Hopwood, Mellor, & O'Brien (2005), Du Pisani (2006), Princen (2010), Quental, Lourenc,o , & da Silva (2011), Rozema , Bond, Cashmore, & Chilvers (2012). Taking Dryzek (2005) as the main inspiration, Hugué *et. al* categorized such discourses as

- The basic entities recognized or constructed (how is sustainability understood?);
- The assumptions about natural relationships (impacts, causalities, ...);
- Agents and their motives (key actors and their interests and motives); and
- Metaphors and other rhetorical devices used” (Hugué, Waas, Dahdouh-Guebas, Koedam, & Block, 2013, p. 189).

Alexander (2010) in ‘Framing Discourse on the Environment’ observes various texts related to ecology and the environment and outlines several aspects i.e. lexicalization cohesiveness, thematic structures, agency, and nominalizations through a corpus-aided critical analysis. Therefore, language related to sustainability makes the discourse different and specific to the concerns aptly and effectively.

2.4 Language on the Academic Websites

A study utilized a discourse analytic approach using Fairclough’s three-dimensional framework to study the discourse on the websites of two Australian universities focusing on the ways of constructing their institutional identities and building up a relationship with potential students. This type of discourse is named as ‘promotional discourse’ and it usually exhibits the deep influence of “globalisation and the trend of academic marketing in higher education institutes” (Hoang & Rojas-Lizana, 2015, p. 2). The study was delimited to only the written discourse of university websites without taking into account visual representation. It was suggested that visual elements (e.g. logos, images, videos) should also be added along with the text which play a significant role in the representation of universities. Websites of various institutions are a great tool for conveying a representative image and maintaining their particular identities. This is also the most effective and economical way to market themselves and have access worldwide. The language of academic marketing is gaining currency to maintain the sustainability of any institution. The information combined with representation paves the way for sustainability discourse.

The three-dimensional framework developed by Fairclough (2013) to study the discourse on the websites of universities corresponds to the three stages of CDA. The first stage describes linguistic features of the texts of universities' websites. The second stage interprets the process of text production and consumption. The final stage explains the effects of texts on society and the relationship between the universities and the public.

Language (both verbal and non-verbal) is used to create a positive image. Envisioning to present this positive image to their audience, the universities need to develop to support their claims highlighted through verbal modes like slogans or words or through just visuals like logos and images (Hoang & Rojas-Lizana, 2015, p. 3). The modes and sub-modes create such a discourse's linguistic and semiotic levels.

Though academic websites are for informational and promotional purposes, it is not a new idea to explore university websites for campus sustainability discourse as “Websites are being used by higher education institutions (HEIs) to share information and engage the campus community in sustainability efforts” (Ferrer-Balas, et al., 2008 in Amey, Plummer, & Pickering, 2020, p. 531). The study highlights the key signifiers of sustainability frames in terms of buzzwords of the sustainability discourse used these days in higher education discourse.

2.5 Websites of Universities and the Discourse of Campus Sustainability

Websites serve the purpose of introducing the image of universities to students for the very first time these days. They serve as their first experience of the “digital handshake” through an online, virtual campus tour via the institution’s website (Ancitl, 2008). Recent times have seen institutional websites as the hallmark of an institution’s reputation, credibility, and promotion as they create a distinctive image (Hoang & Rojas-Lizana, 2015, p. 3) and are their marketing tools.

Websites are one of the means to show the sustainability measures of the campus directly or indirectly. Various indicators of campus sustainability are present on websites as

“Among high performers’ websites, we also see information on recycling, energy conservation, and student activities, but this is in addition to published research by faculty, discussion forums and speaker series, research institutes applying sustainable design, boundary-spanning

partnerships between the institution, government, industry, and the corporate sector to elevate best practices of sustainability and flourishing, to name just a few examples” (Robson, May, 2015, p. 146).

These indicators or themes are, in fact, the signifiers of sustainability communicated in various modes. They have been used so commonly that a trend of following it has been set and this utilitarian approach has been a major threat to ecological sustainability and this is another dimension of campus sustainability discourse.

It has been observed that very few studies have emerged which examined institutional websites through the method of CDA. The study by Chiper (2006) investigates representation of Romanian universities on their institutional websites and also shows comparison of the discourse of Romanian universities with that of higher institutions in UK, France, Germany and Italy.

Saichaie (2011) did a visual and textual analysis of institutional websites of US colleges and universities of different control type, geographic location and admission selectivity. The findings again endorsed the use of “promotional discourse, which indicates the growth of consumerism in higher education” (Hoang & Rojas-Lizana, 2015, p. 6). Consumers are important stake holders in the sustainability discourse and themes on the websites are all modified to cater to their needs. The underlying themes are important to analyze and identify any kind of discourse as “Three themes emerging from promotional type of discourse were: similarity, uncertainty and control” (Hoang & Rojas-Lizana, 2015, p. 6). The institutions had similar representations, despite their type, control, geographical location, etc. The theme of “uncertainty” was due to the limited amount of content directly related to financial aid. The control of the institution over the discourse on their institutional websites is evident through the vague and indirect representation (Saichaie, 2011 in Hoang & Rojas-Lizana, 2015, p. 6). This brings out the institutional need to display content that truly represents the institution’s identity towards their goals for a sustainable future. This study emphasises the promotional discourse as a means of campus sustainability but it delimits itself to this type of discourse only and it is a part of the dimensions and main themes of campus sustainability especially categorized under the main themes of ‘sustainability sciences’ and ‘education for sustainability’.

2.6 Rhetoric and Discourse of Sustainability

The perception of sustainability as compared to economic rationality has more ‘moral implications’ (Plumecocq, 2014). To present the theme of sustainability, several other related words are used in discourse. Most of the time, the discourse of sustainability is a public policy discourse that caters to the ‘needs’ of the public. Needs are “compatible with moral requirements of sustainability” (O’Neill, 2011 in Plumecocq, 2014, p. 4). The lexical items used for expressing this are the values and themes used in the rhetoric of sustainability discourse, as these categories are usually used while addressing the audience to convey the needs in the public policy discourse of sustainability.

The analysis of the linguistic features used to promote sustainability discourse and concepts was done through many devices in the previous studies. Sustainability as a concept in discourse can be figured out linguistically through definitions on top of web pages; functional groups in definitions, i.e. in descriptions of conferences, (e.g., working towards...., leading in..., talking about, sustainable development means.... etc). It can identify the ideological discourse or the rhetorical and argumentative structures in the text, embedded in discourse through metaphor, pronoun use, frames, agency, and modality (Stibbe, 2015).

Modes are integral parts of any rhetoric as “rhetorical action is often established through the combined use of textual and (photo) graphic or visual modes” (De Groot, Korzilius, Nickerson, & Gerritsen, 2006, p. 218). Semiotics works behind the communication pattern of any visual or verbal mode. According to Kress and Van Leeuwen, multimodality comprises “the use of several semiotic modes in the design of a semiotic product or event, together with the particular way in which the modes are combined” (2001, p. 20). Organizations and institutions have their own semiotic discourse too. This discourse involves many disciplines and integrates other types of discourse as well as “Organizational semiotics tries to understand organizations based on the use of signs, texts, documents, sign-based artefacts and communication, thereby using the results of, for instance, psychology, economics, and information systems science as basic disciplines” (Gazendam, 2004, p. 1). These symbols and areas of knowledge or discipline come under the measures and contents of the broader theme of ‘sustainability sciences’.

2.7 Explicit and Implicit Signifiers

The absence or presence of a certain element conveys the idea that the sustainability discourse at that institution is weak, strong, explicit, or implicit. The purpose of displaying the sustainability discourse of a particular organization is to show the level of commitment and openness necessary to promote the organizational goals in a vivid manner. That is why certain sustainability assessment criteria and tools have been developed to gauge an institution's discourse on implementation of sustainable measures. It is important in the field of education because "What we do as educators, both explicitly and implicitly, must be scrutinized to a far greater degree, rooting out the unsustainable" (Armstrong, Gosling, A., Weinman, & Marteau, 1997, p. 18). For example, an exploratory study probing on the basis of different elements of ESD the performance of Nigerian universities reveals several trends e.g,

"Under institutional framework, the existence of an office responsible for sustainability activities was traced to only three universities – one State and two private universities. This obvious lack of sustainability structure which points to a lack of governance approach to ESD was earlier identified by Franco et al (2018) (Franco, Saito, Vaughter, Whereat, & Kanie, 2018) in their study involving African universities where they observed that the lack of governance approach to ESD resulted in a plethora of scattered activities" (Udensi, 2023, p. 86).

Random types of activities, networks/partnerships, the absence of specific courses in sustainability or less, unsystematic or fragmented integration of sustainability into the disciplines are signifiers of implicit or lack of sustainability. Implicitness means that the level of sustainability integration into campus operations is very low, and the focus is mainly on the education area of ESD. For example, "issues of carbon footprint, sustainable waste management, energy efficiency and water conservation which relate to campus operations have not been prominent in the sustainability programmes" (Udensi, 2023, p. 90).

Regarding Corporate Social Responsibility (CSR), the categorization of activities can be into some rational activities that can be labelled as explicit, and some unstated

activities i.e. implicit. These activities are non-static but have the potential of interconnectivity, evolutionary, and cyclical (Grady, 2017, p. 186). For the forum of ISO 26000 (2010), the important explicit signifiers were fairness, development, consumer, labour and human rights, community, and environment.

Culture and economy are the basis of the distinction between implicit and explicit discourse in the context of CSR, as highlighted by Matten & Moon (2008). On the other hand, Carroll A. B. (1999) takes philanthropic, ethical, and legal content along with economic activities as explicit/implicit CSR discourse. Crane, Matten, & Spence (2013) add some more signifiers along with the previously mentioned i.e., social, voluntary activities, managing multiple stakeholders, and emphasizing values.

Carroll A. B. (1999) highlighted “the academic / business perspective of CSR, where explicit elements are legal, ethical and economic; the implicit element is philanthropic” (Grady, 2017, p. 119). In contrast, Matten and Moon's framework defines implicit and explicit activities as ‘economic and national’, leading to differences rooted in cultural and historical contexts. An implicit element in this model includes the legal parameters of the organization, such as human rights, equality and diversity, and environmental laws influencing the organization's activities (Grady, 2017, p. 170).

A cursory glance unravels more challenges for the researchers due to potentially paradoxical differences between personal, organizational, and academic definitions. They need to be complementary rather than paradoxical.

2.8 Discourse on Campus Sustainability

Cole (2003) defines the term ‘campus sustainability’ as follows:

A sustainable campus community acts upon its local and global responsibilities to protect and enhance the health and well-being of humans and ecosystems. It actively engages the knowledge of the university community to address the ecological and social challenges that we face now and in the future” (p. 30).

The following figure will illustrate the concept and themes of campus sustainability more clearly.

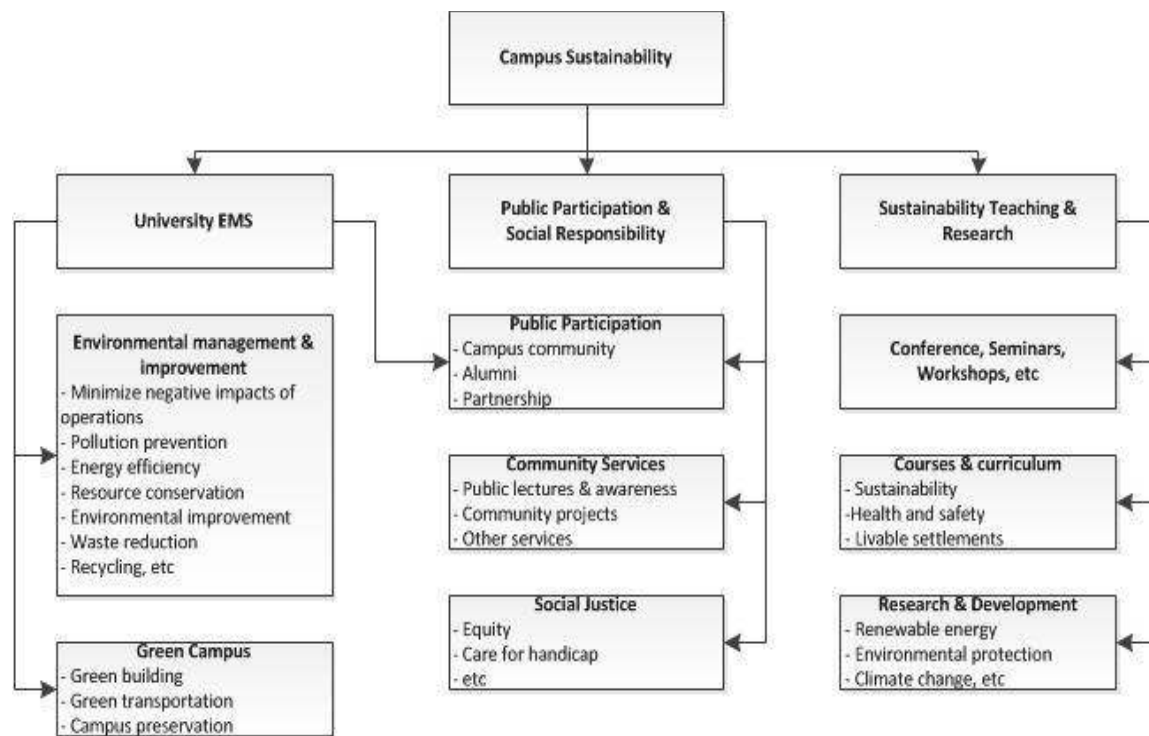


Figure 2.1 Themes and subthemes of campus sustainability by Alshuwaikat & Abubakar, 2008 as cited in Ulkhaq, Prayogo, Firmansyah, & Agustina, 2016.

The above figure shows a wide range of areas that fall under this term, ranging from themes and frames like ‘greening’ the ecology to ‘public participation’ and reaching the heights of ‘advanced knowledge’ and ‘research activation’. These areas are meant to achieve the institutional objectives covering administration, academics, finance, physical facilities, social and cultural resources (Alshuwaikat & Abubakar, 2008).

The pivotal role of universities as institutions to propagate sustainable development of a society has been endorsed in international agreements such as the Copernicus University Charter for Sustainable Development (1994) and the Kyoto Declaration on Sustainable Development (1993) issued by the International Association of Universities in 1993 and the UNESCO World Declaration on Higher Education in 1998 (Sabir, 2008 , p. 64) ; the Lüneburg Declaration on Higher Education for Sustainable Development in Lüneburg, Germany (2001); the Graz Declaration on Committing Universities to Sustainable Development in Graz, Austria (2005) but “The Talloires Declaration still figures centrally in the policy documents of many universities and signing the Declaration is one of four indicators of “sustainability initiatives” used in a recent

assessment of universities in the USA” (DeAngelis, 2009 in Adlong, 2013, p. 1). This suggests its importance more than any other declaration in the reliability of this document.

Many associations and assessment systems are at work to provide a framework and performance reports for implementing sustainability goals, and Talloiries network is one of them. It is a popular assessment plan of several institutions that integrates knowledge and sustainability (University Leaders for a Sustainable Future (ULSF), 1990 as cited in Amey, Plummer, & Pickering, 2020, p. 4). The sustainability concern in education is so much important in the American context as Weisser (2017) points out that there is an Association for the Advancement of Sustainability in Higher Education (AASHE) including more than 800 universities and “the higher education sustainability movement supports an ever-expanding number of trade journals, national conferences and other mechanisms to promote campus sustainability” (2017, pp. 1076-1077). This shows the trend of an ever-increasing amount of academic discourse intended for intellectual growth in terms of campus sustainability. However, this is not the case in Pakistan and universities are doing it randomly by following the SDGs laid out by UNESCO.

There are several toolkits and checklists to assess the campus sustainability discourse. These tools are also known to be approved gauges carrying key verbal and visual signifiers of campus sustainability discourse and give rise to themes, subthemes, and frames. The report by UNESCO enlists the *Tools for Campus Decision Makers for Sustainable Development on Campus* which

includes learning modules, case studies, action plans, environmental policies, resources, forums, and contacts - all designed to help administration, students, or faculty implement sustainable development on campus - and also includes links to a “bookshelf” of key reports and guides covering university leadership, green campus administration, curriculum issues, and student actions” (McKeown, Education for sustainable development toolkit , 2002, p. 136).

It can be deduced from the above mentioned tools that the basic frames revolve around the themes of greening, knowledge economy (sustainability sciences), vigorous academic and

awareness activities (education for sustainability). Researchers on campus sustainability focus on website content as evidence of presence of this discourse as

“an absence of website evidence for campus sustainability program is evidence of absence of sustainability in diverse realms of the institution. Thus, website data provides the most clear demonstrations of what bolt-on approaches to sustainability look like versus embedded sustainability” (Robson, May, 2015, p. 146).

2.8.1 Lexical Items and Thematic Verbal Signifiers of Campus Sustainability Discourse

The frames and themes of sustainability are complex and varied. Meadows (1982) has very aptly summed up the varied dimensions in one phrase by describing the world as an “ecological-social-psychological-economic system” (p. 101). The sustainability discourse covers global problems caused by to imbalance in the structure of this system (pp. 98-108). These issues are also the themes and frames.

Coding efforts for sustainability in education is another uphill task due to its multidimensional nature and “The general results of the thematic coding process indicated that the prevalent themes most frequently occurring in the focus and scope of the sample studies were economy, environment, housing, urban, design, energy, debt, management, policy, and EU” (Öztürk, 2017, pp. 40-41). These sub-themes revolve around the areas of greening, arts, economy, culture, sustainability, and strategic sciences.

A linguistic inspection of the connotation and denotation of sustainability brings up an interesting view. The word ‘development’ is said to have wider usage in different contexts and meaning of sustainability. For instance, in a Turkish research sample of the majority of the theses and dissertations exploring the concept of sustainable development, two words were the substitution words for the word “development” i.e. “kalkinma” and “gelisme”. However, the more frequent word was the word ‘kalkinma’ as the Turkish equivalent of the word “sustainable”, signifying meaning more in an economic dimension rather than the word ‘gelisme’, having a broader meaning of “development”, connotes general progress and enhancement but the word ‘kalkinma’ was perceived as “the economic growth, which leads to transformations in the societal and institutional structures

that include the changes in people’s values, worldview, consumption and behavioral patterns” (TDK, 2015 as cited in Öztürk, 2017, p. 42).

A collocation analysis of the discourse of the theses and dissertations in the Turkish context finds out that

the word “sustainability” collocated most frequently with the words “urban, design, debt, energy, housing, environment, and economy,” which were in a sense related to either economy or environment. This point confirmed the previous assertion about the social pillar’s being neglected in the postgraduate research on sustainability” (Öztürk, 2017, p. 42).

Consequently, this lexical criterion of using the word ‘sustainability’ and its variant forms is also one of the key terms explored for identifying the discourse of sustainability in a text. It is true that the current literature now favors a holistic interpretation of sustainability “to communicate not only that “environmental indicators are as important as economic indicators’ but also that sustainable development is a ‘socially just, ethically acceptable, morally fair, and economically sound’ development” (Leal Filho, 2000, p. 10). These values and qualities are also one of the subthemes of sustainable development discourse.

2.8.2 Frames, Sub-themes, and Signifiers of Campus Sustainability Discourse

Campus sustainability is one of the main themes in higher education institutions to measure the development and maintenance process to assess policy or implementation initiatives and the discourse focused on the main frames and signifiers like: “campus sustainability, management issues, quality improvement, human capacity, curricular changes, and so on” (Öztürk, 2017, pp. 37-38). In short, these major paths are the sub-themes of the three main themes representing the content of campus sustainability discourse i.e. greening, sustainability sciences, and education for sustainability.

Many issues are the focus of campus sustainability plans and “The four most common areas addressed in campus sustainability plans to advance sustainability are education, research, outreach and partnership and sustainability on campus” (Velazquez, Munguia, Platt, & Taddei, 2006 as cited in Amey, Plummer, & Pickering, 2020, p. 6). The study caters such sub themes in terms of the above mentioned selected themes. The concept

of ‘campus sustainability’ themes at higher education level can be visualized in the following model. The areas shown in this model involves all the three themes of campus sustainability as mentioned in the theoretical framework.

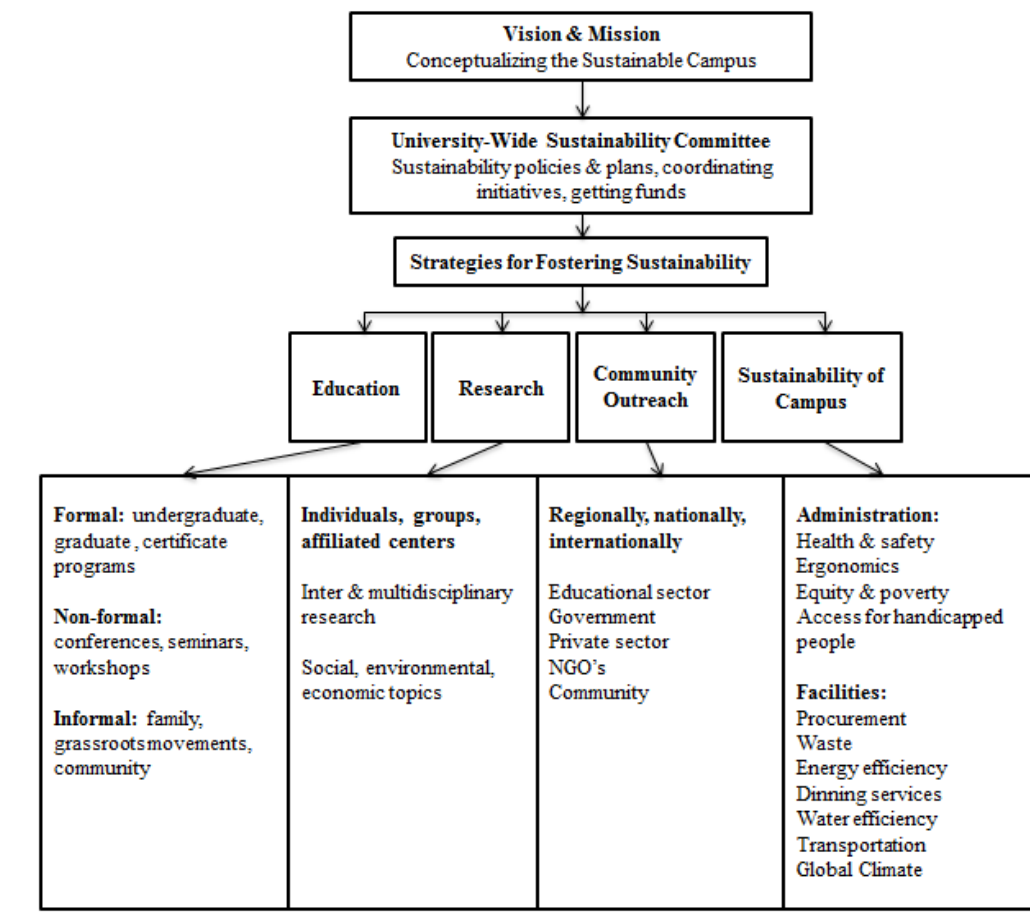


Figure 2.2 A model of higher education campus sustainability themes by Velazquez, Munguia Platt, & Taddei (2006) as cited in Lidstone (2014).

This model presents a wholesome picture of the main contents and topics of the campus sustainability discourse, and it gives a clear idea of the main buzz/key words that were used to focus on the frames of the campus sustainability discourse for the process of data collection and content analysis of the sample. The visual analysis has also been done under the three main sustainability themes and buzz (key) words. The strategies mentioned in the model are the main subthemes or subframes that give rise to various other visual, aural, and verbal signifiers of the campus sustainability discourse. The sub themes or frames mentioned as ‘education’ and ‘community outreach’ pertain to the theme of ‘Education for Sustainability’; ‘research’ is pertinent to the theme of ‘Sustainability Sciences’; and

‘sustainability of campus’ covers the theme of ‘Greening’ as well as the theme of ‘overall campus sustainability’. This implies the general inference that most of the discourse models of campus sustainability measures, frames and signifiers have been covered through these three main themes of campus sustainability discourse selected for this study to explore and analyze in the context of Pakistani higher education institutes, especially the public and private sector universities being the main stakeholders to initiate and propagate such discourse to attain the sustainable development goals 2030 set by international organizations and the government of Pakistan for future discourses.

Though the model covers almost all the main areas of sustainability on a campus, still the economic aspect is foreshadowed by the environmental, social and academic aspects that are more prominent in the strategies. This means that they are not meant purely for commercial and marketing purposes but to focus on sustainable measures.

2.9 Methods Used for Sustainability Discourse Analysis

Following are the popular methods used to measure sustainability discourse.

2.9.1 Corpus and Digital Campus Sustainability Discourse

A small-scale study by Wild, Church, McCarthy, & Burgess (2013) overviewed comprehensively the UK's natural environment. One of its tasks was to find out how ecosystems and the natural environment in Britain are discussed in their public discourse. Analysis of collocations using the ‘Sketch Engine’ was aided by manual analysis of the web corpora of ecosystems’ related language taken from newspapers, academic, government, and non-government websites and blogs. For their research, they developed a methodology which combined automatic and manual approaches, and integrated methods from the fields of corpus linguistics and critical discourse analysis.

Various linguistic and textual dimensions of the discourse related to environmental issues have been presented in the studies carried out earlier. Grammatically, the texts concerning environment have been analyzed in terms of their use of passivisation and nominalizations. The underlying aim for this type of usage was usually thought to avoid showing ‘agency’ or ‘responsibility’ of institutions, organizations, individuals, and social practices etc. (Goatly, 1996; Schleppegrell, 1997). This type of analysis links it to Critical

Discourse Analysis (CDA) which is mostly used as the theoretical framework underlying work on environmental language recently like Kuha's (2009) analysis of statements about global warming in US newspapers ; Alexander (2010)'s analysis of the contexts and linguistic features of several environmental texts ; and Carvalho & Burgess' (2005) examination of the political orientations behind different framings of climate change between 1985 and 2003 in British broadsheet newspapers.

Turning to corpus linguistics (CL), Nerlich & Koteyko (2009) changed the trend by searching for selected vocabulary in English-language blogs and newspapers. Grundmann & Krishnamurthy (2010) compared references to climate change and global warming in English, French, and German web corpora and Bevitori (2010) focused on representations of climate change in newspapers.

Corpus-Assisted Discourse Studies (CADS) focus on the discourse by using corpora to reveal the implicit meaning, but it is more comprehensive and diversified than traditional corpus linguistics (Partington, 2010) and it also takes into account the qualitative data and methods which are not just statistical calculations but also the meaning and context.

2.9.2 CDA and the Discourse of Sustainability

Sustainability is highly orientated towards interdisciplinary areas of knowledge. The analysis is basically qualitative and involves a focus on 'social, political, historical, and intertextual contexts other than the language' (Baker, Gabrielatos, Khosravini, Krzyzanowski, McEnery, & Wodak, 2008). Although universities adopt this type of discourse to market themselves to the public, including potential students, limited research has been done to examine this type of language. Until now, research examining the discourse of university websites that incorporate the use of critical discourse analysis (CDA) has remained limited.

Beringer & Adombent (2008) examined sustainable university research and development projects as part of the 'greening the campus' spectrum, yet distinct in their specific scientific orientation. They found that sustainable university projects can utilize the two interlocking subsystems of academia and operations for system transformation.

Niu et al. (2010) explored Chinese initiatives for sustainability in the curriculum and in campus practice. Chhokar (2010) examined the relative successes of national efforts to integrate sustainability into the formal HE curriculum against efforts to develop local and community-focused projects in India. A discourse analytic approach was used to study how universities represent themselves through the use of language on their institutional websites in an Australian context (Hoang & Rojas-Lizana, 2015, p. 1011488). Institutional websites are utilized as a primary outlet for universities to introduce their “products” to their customers, and language is used as a strategic tool for them to achieve their goal. Basically, the content around campus sustainability themes revolves around seven areas or frames

- (a) Teaching and curriculum that incorporate sustainability into learning capabilities ...;
- (b) Reorienting research and scholarship activities and funding to focus more on sustainability issues, interdisciplinary and new knowledge and technologies ...;
- (c) Campus operations that involve environmental sustainability of everything that keeps the university running, such as green buildings and transportation, sustainable waste management, water and energy conservation, pollution control, health, and wellbeing;
- (d) Institutional framework and governance that involves university policies, missions/visions, signing of declaration/charter and sustainability management;
- (e) Community outreach and collaboration on issues that enhance sustainable development...
- (f) On-campus experiences that utilize the university as a “living laboratory” ...; and
- (g) Sustainability assessment and reporting, ...” (Lozano, et al., 2015 as cited in Alshuwaikhat, Abubakar, Aina, Adenle, & Umair, 2017, p. 3).

These dimensions include almost all the themes and sub-themes of campus sustainability as well as the three particular themes, i.e., *greening, sustainability sciences, and education for sustainability*. The economic aspect of sustainability is still not accommodated here, although it is significant to cater to that for practical concerns, student grooming, and funding efforts.

2.9.3 Multimodal Discourse Analysis and Campus Sustainability Discourse

There has been a significant amount of research on sustainability in the context of Asian countries. Hourdequin (2017), in his paper, found the different ways that three of the four universities effectively employ the discourse of campus sustainability to appeal to the communities within which they exist and demonstrate commitment to the environment and social good. He also analyzed the sustainability discourse on websites in the Japanese higher education context. He compared the universities through multimodal discourse analysis and identified four main discourses: internationalization, technological innovation, pastoral campus life, and contribution to the community.

Multimodal approaches are an effective tool for presenting and evaluating contextual and environmental issues as “Multimodal approaches have provided concepts, methods and a framework for the collection and analysis of visual, aural, embodied, and spatial aspects of interaction and environments, and the relationships between these” (Jewitt C., 2009; Kress G., 2010 in Jewitt C., 2013, p. 260).

Various scholars have used this method for their studies. “Multimodal studies have also been conducted that set out to understand how semiotic resources are used to articulate discourses across a variety of contexts and media for instance school, workplaces, online environments, textbooks, and advertisements” (Jewitt C. , 2013, p. 277). These contexts generate and use different keywords, lexical items and vocabulary, visuals, and oral/ aural modes to communicate and represent their respective organizational sustainability discourse.

Multimodal studies are significant in creating and analyzing valuable data as a method that “provides novel methods for the collection and analysis of types of visual data, video data and innovative methods of multimodal transcription and digital data management” (Bezemer & Mavers, 2011 as cited in Jewitt C., 2013, p. 22).

2.10 Framing Sustainability in Multimodal Discourse in Previous Studies

To probe particular ideologies, purposes and discourses, the technique is to look for specific words linking to the main themes and comparisons of text, e.g., in an analysis of the learning and teaching strategies, the lexicon of sustainability and curriculum was explored to

Highlight further discursive opportunities and constraints for articulating and enacting sustainability. Again, this involved a simple focus on specific words to see the extent to which the ‘language’ of sustainability was evident (Fairclough, 2003). Linguistically, the term ‘sustainability’ was used four times more frequently in LT2, something that was not ‘seen’ in previous readings” (Wayman, 2014, p. 150).

The term ‘sustainability’ and the corresponding forms of this term (with respect to parts of speech) have also been seen as important frames in this study to analyze and compare in the public and private sectors.

The discourse of sustainability is the discourse of development. According to Crush (1995), the power of the world prevails in the languages and practices of development, which justify and promote economic, political, and social practices (p. 8). The content is basically related to notions of modernism and universal human progress to enhance the potential of society’s rationalism (Hettne, 2002, p. 9). The power of language for Cornwall (2010) was the emphasis on D/discourse because ‘words make worlds’ (p. 1). The language of development gives definition to a new world by involving the ‘discourse of possibility’ by glorifying and justifying change or intervention in the current existing world. The ‘buzzwords’ of development are the tickets or medium to get influential status and funding. Rist (2010) concludes that discourses of development convey the idea of a better tomorrow (p. 22). The ‘Western mindset’ emphasizes the D/discourses of economy, consumerism, modernism, progress, industrialization, and individualism (Jackson, 2003 as cited in Wals & Jickling, 2002). This mindset has many implications for social and environmental issues (Wayman, 2014, p. 50). It gives rise to many key words and vocabularies to characterize the discourse on sustainability.

2.11 Campus Sustainability Discourse in Pakistani context

In the Pakistani context, there has been some research in this area, but most of it lacked the linguistic and semiotic aspects of this discourse. A seminal study by Sabir, M. (2008) was about the role of Pakistani universities in sustainable development overall in society. Promoting the sustainability of HEIs in Pakistan has been focused on the least (Mughal, Qaisrani, Solangi, & Faiz, 2011). Malik, et al. 's (2019) survey of higher education students was conducted to investigate their awareness level of sustainability, and also “upon detailed analysis of the offered courses, it was found that sustainability contents are not adequately addressed. The survey analysis also revealed that students enrolled in technology education-related disciplines are not aware of sustainability concepts” (p. 15).

Most of the studies addressed the factors and challenges resisting sustainable development in Pakistan (Zaidi, Mirza, Hou, & Ashraf, 2019; Waqas, Rehman, & Rehman, 2019); education for sustainable development in Pakistani higher education institutions; the students' and teachers' perceptions (Saqib, et al., 2020) and sustainability practices at Asian higher education institutions (Leal Filho, et al., 2022); and social innovation for sustainable leadership (Iqbal & Piwovar-Sulej, 2022).

Khanum (2019) focused on the perceptions of primary grade teachers and student trainers enrolled in the B.Ed Honours programme “who are opting ESD as a course of study” (p. 268). Bukhari, Gilani, & Waheed (2020) explored “the decision making for approaches to the campus sustainability with respect to the assistance of these approaches to the academic activities such as teaching and learning, research, and the quality of higher education in Pakistan perspectives” (p. 42).

Another study about the university mission and vision statements covering four countries, including Pakistan by Ahmad & Masroor (2020) explores the generic patterns by concluding that they are informative

“with an intended purpose of attracting the students by declaring the values, aims, obligations and strategic plans alongside establishing the aspects of global outreach and status in education and research as well as enriching the society and facilitating the individuals with the provision of best resources” (p. 175). The marketing techniques are evident in this

promotional discourse but the presence of these signifiers for the purpose of enrichment, facilitation, and provision of resources must not be overlooked whenever we talk about sustainability measures and themes for the campuses.

The categorization of sectors of higher education institutions in terms of public and private is significant as there are differences in the way these two sectors deal with sustainability concerns. Shah Bukhari, Said, Gul, & Ibna Seraj (2022) conducted an interview study with academic administrators to see the influence of governance on sustainability and the “participants strongly associate unsustainability with lack of institutional change and training” (p. 865). Moreover, there are several internal and external factors resisting progress in the public sector (Zaidi, Mirza, Hou, & Ashraf, 2019; Shah Bukhari, Said, Gul, & Ibna Seraj, 2022) and studies suggested the improvement of the governance of HEIs “if sustainability and sustainable development are to be met” (Shah Bukhari, Said, Gul, & Ibna Seraj, 2022, p. 867).

It might be due to better sustainability awareness, training exposure in private sectors, decision-making, seminars, raising competent students for better earnings, hierarchical systems (Bukhari, Ali, & Faisal, 2021; Hinduja et al., 2023, p. 12) or the lack of vision and collaboration among the stakeholders of the public sector (Arif, 2009; Bukhari & Said, 2013). However, there is also some evidence of the awareness and changing attitude of Pakistani academic administrators toward the sustainability concept in public sector universities (Bukhari, Said, & Mohamad Nor, 2020). The role of the Pakistan Environmental Protection Agency (PAK-EPA) collaborating with the university top management being responsible for embedding sustainability in universities, especially in the public sector as a result of the Environmental Protection Act, 1997” (Bukhari, Ali, & Faisal, 2021, p. 119) has also been highlighted to show the fact that there is a sensitivity to the campus sustainability issues largely concerning the theme of greening and ecological protection.

The role of the private sector in promoting sustainable development in Pakistan is also important to explore. As they are perceived to be the knowledge-creating hubs of action-oriented research through vigorous faculty training and active involvement of all the

stakeholders, the key words denoting barriers to campus sustainability were found to be “lack of finance, poor research culture, faculty incompetency and inadequate management support” (Waqas, Rehman, & Rehman, 2019, p. 19). A study reported that in all the sample universities, the ratio of implementation, assessment, and reporting aspects of sustainability were very low and weak. Also, the private sector as quick decision makers and trend-setters comparatively are “more inclined towards sustainable development. This may be due to the status and structure of the private universities or the sense of ownership” (Asif, et al., 2020, p. 134).

However, studies also highlight the fact that it is not necessary for private-sector HEIs to perform well all the time in terms of sustainability related concerns. There are issues regarding sustainable development faced by private sector Pakistani HEIs (Waqas, Rehman, & Rehman, 2019, p. 21). It requires some good decisions regarding investments, fund raising and teachers’ competency management, utilizing knowledge and implementing appropriate learning approaches in classrooms (Waqas, Rehman, & Rehman, 2019; Saqib, et al., 2020; Hinduja et al., 2023, p. 12). Findings suggested that the outcomes of sustainability irregardless of any sector “depend upon sustainable leader” (Iqbal & Piwowar-Sulej, 2022; Hinduja et al., 2023, p. 12).

If we examine it globally, the situation is still grim, hazy, and undetermined for Pakistan, as it lags behind the Asian world in terms of sustainability progress (Hinduja et al., 2023, p. 12; Leal Filho, et al., 2022) and it is “still in developing phase” (Bukhari, Ali, & Faisal, 2021, p. 129). There “is a need to conduct a systematic and linguistic study to understand how teachers and students view their preparedness to survive and serve in the 21st century” (Hinduja et al., 2023, p. 16).

A study of websites along with documents and interviews from three universities in KPK, Pakistan by Zahid, Ur Rahman, Ali, Habib, & Shad (2021) showed that “all the three universities in the study, despite the differences in type or level of compliance, were somehow perusing the broader agenda of sustainable development” (Asif, et al., 2020, p. 134).

Very few studies were done to explore the verbal and non verbal signifiers indicating the themes of campus sustainability discourse in Pakistan. A study found that there are three

main signifiers of campus sustainability themes in the case of public universities in terms of ‘decision making’ i.e., security, maintenance, and facilities (Bukhari, Gilani, & Waheed, 2020, p. 42). The presence of hostels and transport facilities in Pakistani public universities are also signifiers of campus sustainability. The findings showed that the security arrangements and the meal facilities in hostels need to be improved.

The signifier of ‘technology development’ in terms of the challenges faced by Pakistani higher education institutions and in terms of integrating technology in the curriculum (Noureen, Hussain, & Khurshid, 2020) concerning sustainability which includes “strategies for green computing, energy efficient software, risk reduction, management and code optimization, and resource utilization to address the needs of present and future industries” (Malik, et al., 2019 as cited in Hinduja et al., 2023, pp. 11-12).

In terms of university students’ perspectives in Pakistan and China, a study by Raza, et al. (2023) found a positive correlation with programs of sustainable development for Pakistani students and “between technological improvements in education institutes, teachers’ capacity-building programs, and student–teacher (learning–teaching) relationships” (Raza, et al., 2023, p. 1).

The other sustainability signifiers in the above-mentioned study were:

“Campus operations were examined through building and infrastructure, energy efficiency, waste management, water management, transport, food, landscape and grounds, the environment, packaging, and pollution prevention. The engagement of HEIs in out reach activities was demonstrated by achieving sustainability on the web, collaboration, community development, community projects, awareness campaigns, and problem solving” (Hinduja et al., 2023, p. 12).

Morality and values have to be inclusive in any sort of visionary or policy-making activity in Pakistan, and higher education is no exception to this. In the Pakistani context, “Sustainable development is promoted when the system of education provides the learners with an opportunity to equip themselves with moral values, skills, and competences”(Asif, et al., 2020, p. 1).

The signifiers of ESD including values in curricula that were aimed to be achieved e.g., “human rights, peace, gender equality, global citizenry, and celebrating cultural diversity” (Noureen, Hussain, & Khurshid, 2020); and “honesty, lifelong learning, empathy, systematic thinking, environmental care, social justice, and conflict resolution skills” (Kalsoom, Qureshi, & Khanam, 2018; Kalsoom, Khanam, & Quraishi, 2017 as cited in Hinduja et al., 2023, p. 11).

Quran is the complete code of life and it is the guiding force for providing sustainability to life especially the education and training system. So,

“The moral education system in Pakistan emphasizes the teachings of the Quran, which holds wisdom for the people of all times, with no demand of blind following; rather the encouragement of inquiry, rationality, observation, and intellectuality through experimentation and exploration” (Asif, et al., 2020, p. 4).

Some findings “revealed that the institution and most teaching and learning practices are not conducive to the preparation of morally developed persons that contribute to the sustainable development of country” (Asif, et al., 2020, p. 16). It was suggested to integrate the theoretical moral models with the teacher training programs of both China and Pakistan and “it is of high necessity for university teachers to take time from core subjects to focus on embedding the blend of values in the lecture, and to train their students in morally sustainable values” (Asif, et al., 2020, p. 16).

In Pakistani context, there is a need to explore such sustainability discourses at higher education level. There “is a need to conduct a systematic and linguistic study to understand how teachers and students view their preparedness to survive and serve in the 21st century” (Hinduja et al., 2023, p. 16). There is “scarcity of literature on sustainability” (Bukhari, Ali, & Faisal, 2021, p. 120) and “sustainability in Pakistan is under-analysed and least investigated” (Shah Bukhari, Said, Gul, & Ibna Seraj, 2022, p. 866; Hinduja et al., 2023, p. 12; Butt, Lodhi, & Shahzad, 2020; Leal Filho, et al., 2022). There are a number of studies in the fields of education, management, business, media, environment, social sciences etc., addressing the themes of campus sustainability, but none of them addressed the signifiers in the multimodal spaces of Pakistani higher education discourse.

This study is an attempt to fill the research gap in this area. Given the importance of institutional websites to both universities and students, there is a lack of research investigating the language used by Pakistani universities on their websites, especially with respect to sustainability themes. The Asian countries, especially Pakistan, lack a clear exploration of presentation and awareness towards campus sustainability concerns, although there is a great deal of research work done in this area in the European context,. The current study is an attempt to fill this gap.

SECTION II-Multimodal Discourse and Semiotic Analysis

2.12 Visual Analysis and Multimodality

‘Visuality’ can be seen as a discourse as the images make certain things visible and others invisible (Rose, 2016, p. 2). This idea is the main tenant of visual discourse analysis. Visuals play an important role in conveying a message, especially on the websites. Every visual, no matter its form or mode, has features like illustration, data visualization, supporting text, interactivity, and iconography. This is very significant, especially in the areas of semiotics and discourse analysis. ‘Visual Discourse Analysis’ (VDA) was the approach given by Rose who maintained that the imagery itself is not enough and knowledge, practices and institutions are what define certain imagery as an art to define it. Other discourses' meanings are significant to understanding visual discourse (Rose, 2013, p. 191). This suggests that it is paramount to understand the visual nature of discourse and take other embedded discourses of primary and secondary nature which help make the visual text more clear and precise for the audience.

Following the Foucauldian discourse perspective, Rose divided her visual discourse analysis methodology into ‘Discourse analysis I’ and ‘Discourse analysis II’. Discourse analysis I is “the notion of discourse as articulated through various kinds of visual images and verbal texts than it does to the practices entailed by specific discourses” (2013, p. 191) while Discourse analysis II focuses on ‘practices’ with the dimensions of ‘truth, institutions and technology’. Both analyses complement each other for a broader and more thorough view of the multimodal text. Rose’s description of discourse analysis is meticulous. Still, it seems that the first type of discourse is more objective and allows more generalizability of the multimodal text than the second one, which is impossible without subjective involvement.

‘Visual Discourse Analysis’ is best done on the material that is being more accessible across masses and various interest groups. Rose summarizes the previous studies on interpretations of visual images as involving three sites of meaning: “the site(s) of the production of an image, the site of the image itself, and the site(s) where it is seen by various audiences” (2007, p. 13). Further, each of these sites are categorized into three different aspects labeled as ‘modalities’ which are ‘technological’, ‘compositional’ and

‘social’ (2001, 2007) in nature. The current research has taken the websites as a data sample to take this multimodal discourse as one of the routes to the sites of production, composition, and decoding of meaning from this point of view. It is a crucial step to involve technology in the visual analysis, and that is the purpose of this study. Different modes on the websites make up a composition that conveys the social or ideological meanings of the text quite vividly.

Multimodal analysis best depicts these complex inter-semiotic relationships, as digital data can show a wide range of modes and generate inter-semiotic relationships to represent certain themes. A visual analysis of modes along with the interactors is significant. The rubric of analysis of visuals prepared by Kress & Leeuwen (2006) gives a sketch of how different visuals are being analyzed and from what perspective they are put into order to identify different means and modes that may symbolize or signify different meanings and themes (see appendix-VIII p. ccclxii).

The above mentioned rubric starts the analysis with a basic description of modes representing meaning. Then, it caters to several other elements like actors, goals, participants, settings, their transactional or non-transactional interactions, and symbolic meanings, along with their specific sequencing of information intended (Kress & van Leeuwen, 2006, p. 191). In the case of websites, information about all these elements might not be present e.g., participants, interaction or settings, etc. Additionally, there are different mode combinations along with these elements on the university websites to present their intended information. The signifiers or artifacts related to the sustainability themes of campuses concerning their orientations and interests.

2.13 Signifiers and the Semiotic Analysis of Multimodal Text

A multimodal text is contingent on the theories of ‘sign’ for its analysis as they show the relationship of signifier and signified (Barthes, 1964/1977; de Saussure, 1916/1983) showing the duality of a sign. So, mediums and modes of communication are integral whenever we explore the themes of relevant topics and issues to be represented in various ways. He “identified the signifier as the signal to meaning, or the sound pattern (such as a phoneme or spoken word) that becomes linked with a signified, the “concept” or meaning of the signal or signifier” (Ranker, 2017, p. 196) and “From a multimodal

perspective, a signifier is thus a single entity that signifies meaning, such as a word, image, sound, gesture, or object” (Ranker, 2017, p. 197). Meaning-making is not complete without such signifiers.

Therefore, the semiotic coding starts by segregating the signs and signifiers and then, relating them to the ‘signified’ which is perceived by the receiver making sense of it through background knowledge, personal understanding, and the purpose of finding meaning related to different thematic categories in mind. This process of ‘coding’ helps in data collection and making a sample for exploratory and descriptive research as “The systems in which signs are organized into groups are called codes” (Bignell, 2006, p. 279). They were likened to the ‘dress codes’ consisting of different material signs i.e. clothing items e.g., jackets, ties, hats, various types of shoes, etc. Bignell (2006) highlighted that various dress codes are significant symbols capable of conveying diverse messages or meanings. These may include distinctions in formality, such as formal or informal attire, insights into personal aspects like personality or emotions, societal considerations like gender-specific choices and fashion sense, and practical considerations such as appropriateness for specific occasions or conditions (e.g., wearing loose or light clothes in summer or at a sports event) (p. 279).

These codes are exclusive and mutually intelligible but have to be carefully categorized when it comes to an objective analysis at a broader level. The same is the case of signifiers of other discourses where the meanings of discourses are decoded by the codes already assigned to them. Interpretation may be biased or relative and to avoid this type of subjective discrepancy, the concept of ‘interpretative repertoires’ was drawn by Potter (1996) who called the set of systematically related visual terms, or stylistic significations within the material “mini-discourses” (Rose, 2013, p. 218). Analyzing the presence and absence of certain sub-modes or signifiers is important to decode the themes in the text precisely for a focused and well-searched multimodal discourse analysis to present the final stance authentically enough to avoid misunderstanding of the encoded message.

Though most of the account of linguistic signs comes from Saussure, some of the principles and terms for the semiotic analysis of visuals or nonverbal signs are better explained by the American philosopher, Charles S. Peirce’s (1958) terms as “... Although

language is the most striking form of human sign production, the whole of our social world is pervaded by messages which contain visual as well as linguistic signs, or which are exclusively visual” (Bignell, 2006, p. 280). Accordingly, visual signifiers are as important as verbal ones, and their exclusive or integrated presence is pivotal in meaning-making. The influence of the visual modes makes understanding meaning clearer by keeping the perceptions of the sender and receiver at almost the same level.

This arbitrary nature of the sign was labelled as the ‘symbolic’ sign by Peirce. For example, a photograph of a cat is a signifier that presents an image of the signified i.e., a real cat. In it, the signifier's arrangement of shape and color closely resembles its referent i.e., the real cat with the same colors and shape. Peirce calls this kind of sign, where the signifier resembles the referent, an ‘iconic’ sign, unlike the linguistic signs in which the presentation of the real image may or may not express the same perception or meaning. This reason makes the signification of photographic media more realistic than linguistic media (Bignell, 2006, p. 280). The influence of the visual modes makes understanding meaning more clearly by keeping the perceptions of the sender and receiver at almost the same level.

There is problematization of the signified in the discussions of post structuralist approaches, as meaning is indefinite, non-specific, and capable of uncountable possibilities (Lacan, 1966/2002). So, one approach is “ to examine the meaning potential of a signifier in light of its relations to other adjacent signifiers within a signifying chain or arrangement of signifiers” (Ranker, 2017, p. 197). This signifying chain or arrangement of signifiers is, in fact, led by a frame, or focus, area or a key word that the main signifier is leading us to the signified. Themes and ideas are related to the multimodal signifiers in this way.

The sign systems of different discourses are interesting. Different modes create different sign systems and this has an effect on meaning as Barthes (1964/1977, 1983) described relations between signs through sign systems e.g., clothing, furniture, food, etc. Van Leeuwen (2005) presented relations between images and their perceived meaning in terms of their creators and audiences. This linkage paves the way for the attribution of meaning and themes to specific signifiers presented in a specific way in a particular

discourse. This pattern of sign systems is applicable to the other discourses as well. The same signifiers can generate different meanings regarding the nature of discourse in focus.

2.14 Multimodal Discourse

The employment of at least two systems, i.e., the language system and the semiotic system in the multimodal text is a distinctive characteristic of this discourse, which involves the medium of oral speech collaboratively with “the paralinguistic, and visual-gestural semiotic resources” (Jay, 1998, p. 88) and the written medium too. This is what makes the multimodal text capable of many affordances and interpretations. Both of them do a collaborative deployment of verbal language as well as “visual graphological-typographical semiotic” (Jay, 1998, p. 88). These are the elements that help in the process of meaning-making by the members of a community by integrating language and semiotic systems.

Such systems create an intertwining as well as the harmony of the themes in visual and verbal modes. A broader meaning to text has been given by multimodal elements, as they make it heterogeneous, having diverse semiotic resources or modes like printed texts composed of a certain color, layout, and font, which are sub-modes of a semiotic mode. Similarly, this applies to speech which has the acoustic type of sub-modes having not only linguistic elements but also paralinguistic features, such as pitch, intonation, volume, etc., making it a part of semiotic systems (Pavlina, 2020, p. 9). Therefore, these semiotic ‘signs’ have an important place in multimodal texts giving rise to various verbal and nonverbal frames as every sub-mode has its own meaning attached to it.

2.15 Multimodal Discourse Analysis

The framework of semiotic meta functions adapted from Halliday emphasizes their role as subsystems of the ‘language’ system as “the three basic functions of language are ‘to make sense of our experience’, ‘act out our social relationship’ and ‘to construct a text’”. In theoretical terms, the design elements inherent in multimodal language simultaneously construe human experience” (Ravelli, 2006 as cited in Exley & Cottrell, 2012, pp. 6-7). It means that different aspects of human experience in a social world can be presented

through a multimodal text e.g., economics, equity, environmental, administrative and knowledge concerns.

A multimodal text does synchronize all these three meta functions through modes and sub modes. The idea of ‘multimodality’ was developed in the early 2000s (Kress & Leeuwen, 2001; Jewitt, 2013), borrowing Halliday’s developed framework for analyzing language having many meaning potentials and choices (Jewitt, 2009 as cited in Paltridge, 2012, p. 171). Later, van Leeuwen’s (2005) *Introducing social semiotics*, Kress and van Leeuwen’s (1996; 2006) *Reading images: The grammar of visual design*, Kress’ (2010) *Multimodality: A social semiotic approach to contemporary communication*, and O’Halloran’s (2004) *Multimodal discourse analysis*’ and Painter, Martin and Unsworth’s (2012) *Reading visual narratives*’ were significant works influenced by this view extending it to various modes along with language and their interaction, thus propagating multimodality.

The four theoretical assumptions in multimodal discourse analysis were underlined by Jewitt (2009):

1. Language is a constituent of an assemblage of modes having an equal meaning potential. Each sub-mode e.g., color, image, gaze and posture has a role in meaning-making individually.
2. Focusing on language as the main or only medium of communication only reveals half the dimension or view of the intended meaning of communication. Therefore, each mode of communication should be taken into account as each expresses different meanings.
3. Selection and configuration from these various modes is done by people in order to make meaning through the interaction between these modes.
4. Like language, meanings made by the use of multimodal resources are social too that are shaped by the principles, norms, genre and particular contexts (Jewitt, 2009 as cited in Paltridge, 2012, p. 171).

Paltridge (2012) defined this type of discourse analysis involving modes and sub modes in a very thorough way as

Multimodal discourse analysis considers how texts draw on modes of communication such as pictures, film, video, images and sound in combination with words to make meaning. It has examined print genres as well as genres of web pages, film and television programmes. It considers how multimodal texts are designed and how semiotic tools such as color, framing, focus and positioning of elements contribute to the making of meaning in these texts” (p. 170).

This points out that the major techniques to compose a multimodal text involve framing, color usage, and positioning of the main content. The discourse analysis of multimodal texts involves many techniques and strategies, but a technique that is a must have for such texts is the ‘focus’ or ‘abstraction’ or ‘distillation’ of relevant data or themes to make sure that modes have been studied thoroughly to extract the relevant information. Consequently, using the qualitative and quantitative methodologies of making the focus groups, coding, framing, and describing the content thematically and theoretically in terms of key words, metaphors, concordances, categories, etc. helps to make the analysis of discourse more accurate and meaningful. This boundary definition or abstraction of ideas is pivotal in analyzing discourse through thematic connections or theoretical frameworks.

2.15.1 Limitations and Challenges of Multimodality

Multimodality has been criticized for its semiotic nature, as “it can seem rather impressionistic in its analysis” (Jewitt C. , 2015, pp. 83-84). This drags it to the subjective bias in the process of analysis. Jewitt (2015) defends this by talking about “the linguistic heritage of multimodality” where it is the contextual and fluid nature of semiotic resources which makes the selection of multimodal semiotic resources complex and this, in turn, makes the meaning making more complex. Thus, the objection of ‘impressionism’ is more judgemental in nature and this can be avoided by looking into it as a symbolic language system that has implicit or explicit signifiers.

The solution can be linked to the meanings to the context and themes. The scope of multimodal research is so vast that participant involvement can generate more meaning and more involvement. This supports the meaning making process as dependent on the perception or focus of the composer and the audience. This study is an attempt to see the

trends of the composing authorities or administrative systems of multimodal texts on the websites. In contrast to the discipline of ‘Linguistics’, which has its major frameworks in terms of cognition and syntactic structures in communication, multimodality has its roots in the social semiotic theory of communication as the major framework that is applicable to all modes of communication (Jewitt C. , 2015, pp. 83-84) .Therefore, it gives a more broader and general view instead of holding on to specific data.

Multimodal analysis caters to a detailed and thorough research process. This sort of research investigates specific instances. It becomes a limitation for multimodal research that it is difficult to generalize. Analyzing multimodal text through both qualitative and quantitative methods brings more validity, reliability, generalizability and authenticity to the research themes. The discourse analysis of multimodal texts is multidimensional, deep, and intricate. This type of analysis brings forth the results and conclusions in a scientific and objective way dealing with the subjectivities in an adept and tactful way.

2.16 Multimodal Signifiers as Frames

Meanings or themes are motivated by signs through signifiers and signified, or vice versa. It is argued that the significant thing is the process, and the mutual understanding of the people who are perceiving it and are directly or indirectly an element of this meaning making process whatever the agent of meaning making is. The meanings are, somehow, motivated either by choice or convention. Many signifiers are encompassed by the ‘design’ of the text, as “Design is used to refer to the situated process in which a sign maker chooses and arranges semiotic resources to realize a particular social function or purpose” (Jewitt, Jeff , & O'Halloran, 2016, p. 177). This gives the idea that design is accomplished by the balanced use of semiotic resources, which later, shape the signifiers in a discourse.

‘Signifiers’ are an important element in discourse that provides the focus of interpretation of meaning. ‘Frames’ are, sometimes, part of signifiers or signifiers themselves as it depends on the context or surrounding ideas around them in discourse. If frames are taken to be a set of assumptions and beliefs evaluating perception and logic, then the term has a paradoxical potential i.e., the signifier encompasses not only the content of an object but also the organizing structure. The frame is a self- dependent semiotic element as well as initiator of inquiries, debates, and also establishes the vocabulary or

lexis common to the independent focus (Pickett, 2007). In terms of videos or movies, this signification again goes into the framing as “Heath references Saussure’s linguistic sign in terms of the movie screen: “the frame is the reconstitution of the scene of the signifier, of the symbolic, into that of the signified, the passage through the image from other scene to be seen” (Heath, 1981, p. 12).

Though other elements take part in the constitution of frame in the moving images, e.g., angles, shots, gaze etc., the lexicon of film presents the term ‘frame’ as either the content of an individual shot or the border of the screen of a certain image (Pickett, 2007). In the visual language, the ‘frame’ is the focus of modes and submodes which signify the relevant themes. Predominantly, it is the main analytical device to trace any type of discourse content in a multimodal text.

Frame as a semiotic element is so important in film and dynamic text theories that its interpretation reveals more themes and ideologies. It is more important to look inside the visual or verbal text than outside it to identify frames, as the main content is usually depicted within them. The analysis of frames usually requires keen observation and understanding of the themes as one of the analytic techniques.

2.17 Cross-modal Analysis

One of the sub-phases of cross-modal observations is that it focusses on the forms of interplay between various elements of modes, e.g., the time-based, spatial, visual, auditory, linguistic elements present or implicit in the text. This interplay of two or more elements producing meaning may express specific ideas or themes which are completely reversible in combination with other elements. Generally, the focus of cross modal analysis is on

1. The verbal mode including all the sub modes of written text and the visuals (Garner, Gillingham, & Zhao, 2003; Martinec & Salway, 2005; Hagan, 2007 as cited in Pauwels, 2012, p. 256).
2. The oral/ aural mode i.e. Sound and visuals including music and language as sub modes (Chion, 1994; Van Leeuwen, 2007 as cited in Pauwels, 2012, p. 256). The function of sound might be making the visual images more realistic or symbolic in expressing the overall meaning of the multimodal text.

3. The integration of visual (verbal/non-verbal) and oral/aural modes (or sub modes) including design and content (Kress & Van Leeuwen, 1996; van Leeuwen, 2005; Knox, 2007 as cited in Pauwels, 2012, pp. 255-256).

This integration makes up the design of the text and that creates signifiers of a discourse carrying themes for the audience to decode them. This also creates a lasting impact on the audience as both verbal and nonverbal elements are involved.

Painter, through the Hallidiyan approach, explains the process of composing visual space in terms of using intermodal means. Deducing from the mode of verbal text about ‘information focus’, he refers to the unit of information in the visual text as ‘focus group’ which is defined by him as the “material that is grouped together compositionally as some kind of unity or ‘eyeful’ to which we are guided to attend” (Painter, Martin, & Unsworth, 2013, pp. 91-92). The same was termed as ‘frames’ by Kress and van Leeuwen (2006, p. 203) which makes visual text as being brought together or kept separate. For example, Painter describes it as a ‘macro’ frame’ might be a double-paged space of a visual which might have other frames within it as in the image/s, framing off of the verbal text might be done by placing it on a separate page or outside a defined frame for the image or sometimes, even within the image. Hence, ‘framing in the visuals’ does the work of defining boundaries through the separation or inclusion of certain constituents or dimensions.

‘Intermodal integration’ was supposed to include verbal text or ‘verbiage’ inside or outside the image through choosing the layout and the different ways of separation of image and verbiage and their boundaries i.e. complementary or else integrated within the layout (Painter, Martin, & Unsworth, 2013, pp. 91-92). In the discourse of websites, this collaboration and selection of modes are fundamental to composing the text and interacting with the audience.

The model of multimodal analysis as presented by Painter, Martin, & Unsworth (2013) is also significant to notice where the complementary role of image and language was explained as visual and verbal meaning potentials which makes use of framing, tone, focus, and compositional aspects through intermodality. The genre stages and usage were also realized in the visual and verbal text (Painter, Martin, & Unsworth, 2013, p. 139). This

model describes intermodal integration and focuses only and does not have the potential to explain the stages of intra-modal analysis. It focuses more on the intermodal content analysis than the compositional contextual analysis of intermodality. It outlines the integration of visual and verbal data, showing the prominence and phase-wise division of meaning potential and realizations. It can be observed that framing is a very prominent component in this intermodal integration.

Bateman (2008) turned the multimodality framework to focus on ‘genre’ that caters to several layers of description possible for multimodal texts. These are the “content structure, the genre structure, the rhetorical structure, the linguistic structure, the layout structure, and the navigation structure of the text” (Paltridge, 2012, p. 174). The current research focuses more on content (verbal and non-verbal text) and layout structure than on the other structures mentioned above.

Each mode or sub-mode contributes to the meaning which is, largely, semiotic in nature. The relations within and between modes help in integrating the themes. The image-text relations in terms of their contributions to meaning may be equally/ unequally used in a text. Such specifications create an impact on the audience which helps in creating content concerning information available and depicting the themes in that discourse.

Van Leeuwen (2005) explores the manner (‘how’) and the elements (‘what’) of multimodality through the notions of ‘speech acts’ and ‘genre’ in the process of communication by examining the modes of text by saying that not only the words of an advertisement to persuade a person to buy a product but the linguistic, non-linguistic, visual and contextual factors work collaboratively to attain this effect (van Leeuwen, 2005 as cited in Paltridge, 2012, p. 173). This is also true for university websites which use multimodal discourse to promote the institution as well as represent the campus sustainability measures following the sustainable development goals.

A multimodal text has various levels of visual and verbal elements of a text as Chan (2011) tried to devise an integrated model of a multimodal text at different levels. ‘Framing’ is a prominent feature that gives rise to the methodology used in the analysis of a multimodal text which has to be prioritized and ranked to probe the meanings in the discourse fully. The concept of ‘rank’ was given by Chan and was to be applied to the

segmentation of texts by giving an example of a multimodal text composed of multiple frames. This ranking, further, helps in clearly identifying the coding and framing criteria. The following figure describes the levels of analysis of visual and verbal elements carrying the units and sub-units of text and frames.

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Table 7.1 Levels of analysis: Units and rank

SEGMENTS	LEVELS OF ANALYSIS (RANK)	LABEL
Unit:	complete multi-semiotic text (single/double page spread)	M-S FRAME
Sub-units:	multi-semiotic frame	FRAME A, B, C
Verbal elements:	text	I, II, III
	clause	1, 2, 3
Visual elements:	image	I, II, III
	image part (figure/member)	a, b, c
	embedded image	i, ii, iii

Figure 2.3 Levels of Analysis as given by Chan (2011).

The way they are placed in the scheme of things around them, the context and their interpretation are also affected by the purpose and the knowledge/ ideology /themes that the communicators have in the process of interaction. This linking, framing and co-occurrence of some key ideas in the verbal, non-verbal or integrated modes and sub modes is what constitutes the major portion in the discourse analysis of any multimodal text. This model highlights the visual and verbal elements but a weakness of this model is that it does not explicitly go into the details of modes and signifiers, creating an impact for framing analysis.

Website analysis is not a simple analysis but it consists of different phases as Pauwels (2012) suggested six phases of theme interpretations, i.e. “The research thus migrates from fairly easy-to quantify and code data, to more interpretative analysis focused on discovering the metaphorical and symbolic dimensions of websites or to unraveling their intended and even unintended meanings.” (p. 251). The following figure illustrates this framework which has been used as a conceptual and theoretical framework of this study.



Figure 2.4 A Multimodal framework for analysis of websites by Pauwels (2012).

The signs embedded on the websites have a semiotic system for expressing meanings through several signifiers. The semiotic system between the modes involves the individual presentation of the message through each mode, and the impact of different modes together to communicate the themes, i.e., inter-modal analysis, is significant in illustrating the themes intended by the sender or producer of the text. On the other hand, the analysis within the modes themselves, i.e., ‘Intra-modal analysis’, is also significant as the verbal and nonverbal text may be present in either fixed/static or moving/dynamic elements of modes. In this type of analysis, various signifiers come into focus. Pauwels (2012) categorizes these signifiers as

- i) Verbal/ written signifiers
- ii) Typographic signifiers
- iii) Visual representational types and signifiers
- iv) Sonic types and signifiers
- v) Layout and design signifiers
- vi) Metaphors and Symbols

i. Verbal/written signifiers: Written language includes signifiers that have the potential of culturally specific meanings explicitly and implicitly, e.g., descriptions, assumptions, propositions, and opinions carry the meanings/ signposts of their cultural ecology. These signifiers might be present stylistically e.g., aspects of syntactic, semantic, and pragmatic nature might contribute to meaning-making. Content analysis of topics and issues could be in argumentative or explanatory form focusing on lexical usage, word register, grammatical categories, metaphors, strategies, connotations, abbreviations, and use of paralinguistic features (Wierzbicka, 1991; Foley, 1997; Crystal, 2001 as cited in Pauwels, 2012, p. 253).

ii. Typographic signifiers: The meanings are in the visual aspects of the written verbal texts ranging from the choices in terms of the font style, size, color, direction, icons, digital artefacts, images to the use of intertextual elements (Brumberger, 2003; Cahalan, 2007; Stockl, 2005; van Leeuwen, 2005, Van Leeuwen, 2006 as cited in Pauwels, 2012).

iii. Visual representational types and signifiers: These signifiers are very complex one due to their visual variety and shapes as well as in terms of their analysis with respect to

answering the questions of ‘reference’ and ‘style’ contributing to the meanings, e.g., graphic illustrations, symbolic representations, simple or abstract art, quantitative type representations (Pauwels, 2008).

This needs to be interpreted with relevant knowledge and the type of referent (Pauwels, 2012, p. 254). In the case of photographs or films, the content to be analyzed was explained by Pauwels (2012) in terms of the following criteria: Firstly, “the material characteristics of the image” refers to these characteristics which are limited in the specific case of websites to the images on a computer screen focusing on its dimensions ranging from its texture, color, form and border outlines. Secondly, the “signifiers and codes of the static image” analyzes the elements ranging from its compositional arrangement, highlighted aspects, amount of light and dark areas, camera angles, effects). Thirdly, the “signifiers and codes of the shot” (moving image) are focused on camera movements and speed of moving pictures. After this, the stages of “editing choices” and “post-production” are there (Boggs, 1991; Monaco, 2000; Giannetti, 2007 in Pauwels, 2012, p. 254) which have their own technical aspects chosen by the composers and then analyzed by the audience according to their point of view.

iv. Sonic types and signifiers: Websites have various sound or auditory aspects having signifiers in them, as which are listed as “Spoken words or sung lyrics; vocal sound (non-verbal); non vocal sound/noise; music (instrumental or vocal)” (Pauwels, 2012, p. 255).

Music has certain iconic, indexical, and symbolic qualities that convey prominent cultural signifiers of such aspects, e.g., traditions and rituals, ethnicity, genre, and linkage with sub-cultures.

v. Layout and design signifiers: Website design and layout are largely intended to capture the attention of the audience and get the desired response from them. It does also convey the choice of viewpoints, goals, visions, and ideas of the composer or producer. This is done by signifiers focusing on text placement and size, repetitive patterns, dominant elements, themes, colour arrangement, balance, frames, etc. (Kress & van Leeuwen, 2002 as cited in Pauwels, 2012, p. 255).

These choices may be too fixed or predefined, or they might be more fluid or flexible in putting up different categories. They might create or be a part of an acknowledged “genre”

of personal or institutional nature or make it eclectic. Metaphorical or cultural references, connotations, or metaphors are there, or it might be intertextuality, e.g., a website of professional nature embedding personal content as well. It basically reveals more content about the ‘culture of the immediate sender(s)’, through their choices, which affect the receivers and their response or feedback towards it. For example, predesigned or ready-made templates, themes, or sub-links on the websites might reveal more about the culture, ideas, and choices of the developers than about their users. In this study, the descriptions and tables of university websites have been focused on such signifiers and the relationships of the content conveyed by them with the selected themes of campus sustainability discourse. They have been identified and highlighted by segregating the common visual elements in the moving, i.e., videos, and static, i.e., still visual and verbal text collected from the websites. Finally, this chapter is concluded after appraising and scrutinising the key concepts and the probing scholarly works conducted in the area of study. The review of literature in the chapter is also helpful to navigate the course of this research by discussing the findings of similar studies through comparison or contrast with the present study from this chapter, especially in terms of cross-referencing and drawing conclusions from the given theoretical and conceptual foundations.

CHAPTER 3

RESEARCH METHODOLOGY

This chapter illustrates the data collection techniques and methods used by the researcher to find answers to the research questions posed in this study. It explains the methodologies, approaches, designs, and procedures involved before, during, and after conducting the whole research process. The chapter explains the design of the research, the rationale for selecting it, and its appropriateness according to the topic. The method of multimodal discourse analysis has been explained thoroughly, along with the semiotic and content analysis methodologies and the theoretical and conceptual frameworks of the related methodologies. The process of data collection and analysis, sampling and delimitations of the data collection and analysis, reliability, ethics, and validity concerns are elucidated in this chapter.

3.1 Research Design and its Appropriateness

The inquiry is exploratory in nature as it tries to figure out the campus sustainability discourse already present on the websites of Pakistani universities. Exploratory research studies are helpful in “formulating a problem for more precise investigation or of developing the working hypotheses from an operational point of view. The major emphasis in such studies is on the discovery of ideas and insights” (Kothari, 2004, pp. 35-36). Moreover, an exploratory design offers enough flexibility to consider different aspects of a problem under study and the process involves “Generally, the following three methods in the context of research design for such studies are talked about: (a) the survey of concerning literature; (b) the experience survey and (c) the analysis of ‘insight-stimulating’ examples” (Kothari, 2004, pp. 35-36). The present study follows the pathways mentioned above by exploring related examples of visual and verbal text.

This kind of research offers various dimensions of the topic, which makes it more vivid and continuously provides an orientation for the researcher during the research in data collection as well as data analysis by gathering information on a topic in multiple ways. This study has the potential to make use of such a design as there is very little information available on this type of discourse in linguistic and semiotic dimensions, and its studies in the Pakistani academic discourse context are very limited, and they need to be explored and explained in various dimensions and theoretical frameworks. It has the ability to provide different dimensions and modes of information on the same topic, and this is the demand of the topic of this current study as "... instead aims at applying new words, concepts, explanations, theories, and hypotheses to reality with the expectation of offering new ways of seeing and perceiving how this segment of reality works, how it is organized, ..." (Reiter, 2017, p. 139).

The 'what' and 'how' questions could easily be answered with this type of research design. It gives us a deep understanding by focusing not only on the process but also on the product, which makes it different from other types of research. Results or outcomes are, sometimes, not very valid for a wide range of generalizations, and exploratory research caters to such shortcomings. So, this type of design, according to the research objectives and sample, is suitable as it does not predict or assume any results, and these are inferred from the absence or presence of such data to be analyzed. Exploratory research is explanatory and descriptive in nature, as it explains the explored data and findings qualitatively, quantitatively, or both. It describes the observed data and explains its collection, categories, and type of analysis in the form of numbers or text.

3.2 Methods of the Study

A mixed- method approach, i.e. using quantitative as well as qualitative approaches and methods as described by Onwuegbuzie & Collins (2007) has been used as it is the most suitable one for answering the research questions in the study. This combination provides "ways to answer research questions that could not be answered in any other way" (Tashakkori & Teddlie, 2003, p. x). As it is an exploratory study, the focus was on identifying suitable university cases, collecting text and audio-visual data from these universities' websites, coding this data independently for themes related to our research

questions, and then collaboratively analyzing and synthesizing the findings and results both qualitatively and quantitatively.

The qualitative approach adopts many types of methods and techniques, and among them, the technique of content analysis for multimodal discourse has been used for the data analysis of this study. After observing the type of modes, their signifiers and themes of campus sustainability discourse, the data has been explained through qualitative and quantitative thematic content analysis (interpretive). This technique is apt to seek the answers to research questions in focus. as “Seven major elements in written messages can be counted in content analysis: words or terms, themes, characters, paragraphs, items, concepts, and semantics” (Berg, 2007, p. 312). Qualitative content analysis is one of the most useful research methods used to analyse textual and visual data. The merits of content analysis usually offset its weakness, i.e., the sample or data to be already recorded or codified, by its strengths in descriptive studies like cost effectiveness, clarity in descriptive or exploratory designs, and the convenience of showing societal trends and meanings. (Berg B. L., 2001, pp. 258-259). This makes this technique a pertinent choice for this study.

An aspect or dimension of the study may be highlighted by using only one method. Using only one method might focus on one aspect more and others less, and hence, a thorough study is not possible. Overlooking certain influences might take place because “.... each method reveals different aspects of empirical reality, multiple methods of observations must be employed” (Denzin, 1978, p. 28). This study has utilized most of the categories of triangulation among the four categories of triangulation (i.e. of data, theory, investigator and methodology), as outlined by Denzin (1978, p. 295). The study attempts to go through methodological, theoretical, and data triangulation quite vividly, as it is a multimodal study that operationalizes different theories, methodologies, and methods. An account of the selected data in verbal and visual forms has been described, interrelated and compared with the statistical results of the campus sustainability themes in the public and private sector websites of Pakistani universities.

The study follows the ‘Qual-Quan model’ of mixed method design which involve collection and analysis of both quantitative and qualitative data simultaneously (Creswell & Creswell, 2017, pp. 193-194). In terms of quantitative data, descriptive statistics is used

to explain the prominence of modes and signifiers through their frequency or percentages while the qualitative data explores the verbal and nonverbal signifiers in relation to the campus sustainability discourse. The primary categories of descriptive statistics outline the frequencies, measures of central tendency, measures of relative position, measures of relationship, and measures of variability (Gay, Mills, & Airasian, 2011, p. 322). Frequency is a significant quantitative category to highlight the quantitative values of the required variables in a study as “*Frequency* refers to the number of times something occurs; with descriptive statistics, frequency usually refers to the number of times each value of a variable occurs” (Gay, Mills, & Airasian, 2011, p. 322).

The two types of data are “equally weighted and are collected concurrently throughout the same study -- the data are not collected in separate studies or distinct phases” (Gay, Mills, & Airasian, 2011, p. 463) which bring more support and authenticity to the researcher’s argument and “the researcher looks critically at the results of the quantitative and qualitative analysis to determine if the sources revealed similar findings” (Gay, Mills, & Airasian, 2011, p. 463) to bring more validity and reliability to the research.

At the stages of data collection and data analysis, the study follows by technique the tools of ‘online observation’ and ‘note taking’ in natural settings by the researcher herself. Analyzing the web involves reporting and collecting the data there “for research and/or development. It enables researchers, developers and organisations to understand user behaviour within and across webpages; create, maintain and improve websites; and optimise usage” (Dawson, 2019, p. 390). Basically, this type of observation is “ a research method that involves selective and detailed viewing, monitoring, acquisition and recording of online phenomena. This can include noticing facts, taking measurements and recording judgements and inferences” (Dawson, 2019, p. 274).

It is an unobtrusive kind of observation wherein the “Researchers collect posted but not personally identifiable information or look for patterns in such posts on websites, blogs, or social media sites, or in discussion group interactions” (Salmons, 2015). It is an "extant" type of method that uses existing materials for observation without the researcher’s influence. Blogs, websites, or social networking posts, reports, or documents are the types of data usually used for such types of observations. Controlled experiments utilising questionnaires, visual

images, websites, and apps also contribute to the observational data. The application of online observation in research is contingent on the theoretical perspective and methodology employed. On one hand, the positivists who adhere to the scientific method may use online observation to formulate and test hypotheses, while on the other hand, the ethnographers may utilize it to report, interpret, and record online relationships and interactions (Dawson, 2019, p. 274).

Being one of the participants in the university discourse, the researcher is a regular faculty member in a Pakistani university currently and has quite a rich professional as well as academic experience, as she has also been studying throughout the Pakistani educational system in both the public and private sectors. Therefore, the researcher has the privilege of being well aware of the themes of campus sustainability discourses in Pakistani contexts at various levels and can easily identify the semiotic frames and signifiers of the discourse at Pakistani higher institutions.

Mixed methods are useful because they complement each other and provide support while verifying the obtained results and establishing their validity while maintaining their characteristics. This data has been analyzed both qualitatively and quantitatively according to research questions. So, the questions have been perceived in the following way, according to the type of method.

Q 1 seeks the way the campus sustainability discourse is presented in written text and audiovisual form on the Pakistani universities' websites. This is the main question, which probes the audio-visual data related to the three themes of campus sustainability concerning the types of text on their websites. The types of audiovisual text were categorized as static and dynamic texts. This question explores the representation of the selected themes through the signifiers and modes of these two types of text on the websites.

The subsidiary questions seek the representation of these themes through all signifiers and all types of modes or submodes separately in both sectors. It is basically qualitative in nature, as it needs to describe all the related content according to selected sustainability themes in the static as well as dynamic text. Keeping in view the selected concepts and themes of sustainability, the analysis focuses on the exploration of the visual semiotic signifiers associated with these themes. It also highlights the modes through

which these signifiers are framed to produce this discourse on the websites. The analysis became quantitative when the frequencies and percentages of the themes and modes were quantified, and the most frequent and least frequent were described to compare them in the private and public sectors.

The types of texts that use different modes to communicate the themes of campus sustainability were observed and described. The static text has its own peculiar impact on conveying the themes, while the dynamic text conveys them in some of the modified versions of modes and sub-modes. Some modes and sub-modes are similar in both types of text in the public and private sectors. It is mainly qualitative in nature, with the inclusion of some quantitative analysis at the end to quantify them in both sectors and types of text.

Q2 explores the sustainability discourse shared by the universities' websites involving semiotic analysis, including the visual signifiers, which are both nonverbal and verbal signifiers in the public and private sectors. It will attempt to explore the visual signifiers in verbal and nonverbal form in the still and dynamic text. The high frequency of some common signifiers further illustrates their preference for framing used for presenting campus sustainability discourse on the websites. This question is also qualitative, in which quantitative aspects are also observed through frequencies.

Q3 probes the extent to which the common verbal and non-verbal signifiers in both texts and in both types are used in terms of their usage in the public and private sectors. They are quantified in terms of frequency, and their analysis will highlight the common design signifiers in the private and public sectors. The prominent ones have been highlighted in the findings. Doing correct content analysis is beneficial as it enhances the chances of replicating the data due to the specific criteria of categories necessary for ensuring reliability and validity (Lissack, 1998; Woodrum, 1984).

Content analysis is a directed approach with a focused and informed perspective on reality in an explicit way (Hsieh & Shannon, 2005). It has the benefit of being a safe method, as there are more chances of correcting or modifying the coding scheme during the study (Woodrum, 1984). The study by Hasim, Pullen, & Sivam (2011) reviewed the Australian and Malaysian universities' websites through content analysis to explore the presence of sustainability evidence. The technique of qualitative content analysis is best suited to identify patterns and themes on the topic of sustainability that are accessible from

publicly available data on websites. Technological advancements and changes have led institutions and organisations to post their activities, policies, and relevant information on their websites instead of hard copies of their newsletters, brochures, reports, notices, etc.(Adams & Frost, 2008). Consequently, websites have become a hub of representation of so many official, institutional and administrative orientations, plans and policies over the years displayed for the public view by several organizations.

3.3 Data Collection & Data Analysis Methods

The overall procedure of the study involves data collection and data analysis methods to fulfill its requirements.

- i) Data collection methods
- ii) Data analysis methods

3.3.1 Data Collection Methods

The data collection methods, their rationale, and their suitability for the research topic have been discussed in the following lines: The data was collected from the websites of Pakistani universities through the main tool of ‘observations’.

3.3.1.1 Observation

The main data collection tool was "structured observations," done through note-taking and software use. Field notes are the means to record observations, which may be described as jotting down the important details in many ways as ‘key words or symbols; transcribing; comprehensive descriptions of events; the physical settings of events, behaviors, and activities pictured in the description; and an explanation of the researcher’s activities and behavior. (Cohen, Manion , & Morrison, 2007, p. 405). These were used in the data collection and data analysis stages.

‘Observation’, as data collection process, gives a chance to gather “live’ data from naturally occurring social situations” (Cohen, Manion , & Morrison, 2007, p. 396). This is better than trusting and verifying second-hand or secondary accounts as “immediate awareness, or direct cognition, as a principal mode of research” (p. 396). They bring more validity “than would otherwise be the case with mediated or inferential methods” (p. 396).

It is advantageous in comparison to other tools because “on a procedural point, some participants may prefer the presence of an observer to an intrusive, time-consuming interview or questionnaire” (p. 396). Some critics doubt its validity and reliability but it is a primary tool for data collection in scientific method as “Observational data are sensitive to contexts and demonstrate strong ecological validity” (Moyles, 2002 as cited in Cohen, Manion & Morrison, 2007, p. 396). The contextual nature of such data brings to light ground realities and reasons, bringing forth both subjective and objective or specific and general deductions after exploration.

Great care has been taken about the shortcomings of observation as a methodological tool in terms of the lack of control as it is in natural settings, assessment and sampling problems, small sample issues, access and negotiation issues, and confidentiality/privacy issues (Bailey, 1994 as cited in Cohen, Manion, & Morrison, 2007, p. 397). Since they were initially dealt with by the researcher, these shortcomings did not create such problems.

3.3.2 Data Analysis Methods

The data analysis methodologies included simple descriptive statistical analysis as well as qualitative thematic content analysis as techniques for doing a multimodal discourse analysis of visual and verbal data. The methodological framework for data analysis has been given as follows:

3.3.2.1 Multimodal Discourse Analysis (MDA)

Discourse analysis is one of the most popular methods of studying sustainability themes in language as “Several studies on sustainability transitions in socio-technical systems take into account the role of language and meaning in their empirical investigations both in the study of past transition trajectories and ‘transitions-in-the-making’” (Veen, Klerkx, van Slobbe, & A. Tamás, September, 2015, p. 1). Language is the meaningful context of any type of sustainability discourse. The conceptual or thematic meanings in a discourse have to be literal, non-literal or both. The theoretical underpinnings of the themes under focus can easily lead to synthesizing data and analyzing the text.

Discourse analysis is the main method or methodology for analyzing sustainable development discourse documents through locating and interpreting contextual content

where the ‘focus’ of verbal and visual signifiers is explored to record the themes and subthemes which is called to be ‘framing’ of the text. Meanings inferred from signifiers can best be explained through discourse analysis of the content of the text as “Discourse analysis offers both theory and methodology to approach the study of language and meaning, but there is a broad range of ontological and epistemological approaches to discourse analysis available” (Veen, Klerkx, van Slobbe, & A. Tamás, September, 2015, p. 2).

Focus on the linguistic structures and recurrent themes can shed light on how people’s or organizations’ actions are shaped both in an enabling and a constraining way, which are two sides of the same coin, which is ‘sustainability’. Veen *et. al* (September, 2015) emphasized the significant role of discourse in framing and reframing positions and perspectives on sustainability transitions. Critical discourse analysis is a foundational technique as “Actors formulate and communicate their vision on change in discourse, but discourse also structures how actors formulate and communicate that vision. Consequently, discourse and discourse analysis are frequently mentioned in sustainability transition studies” (Veen, Klerkx, van Slobbe, & A. Tamás, September, 2015, p. 2).

The multimodal text has been divided into two types of visual text: static text and dynamic text. The static text is composed of modes of both verbal written text and visuals, while the dynamic text has these modes along with some common sub-modes shared by the still text and additional modes that are not present in the still text. The content of these texts has been analysed in terms of the verbal and visual signifiers present in them. These signifiers were selected in terms of the buzzwords of sustainability to analyse the frames in the content of campus sustainability themes according to the topmost frequencies.

The multimodal discourse analysis of data has been divided into two sub-categories, i.e. verbal text and visual text analysis. Based on such assumptions, a multimodal discourse analysis of websites by Pauwels (2012) has served as an overall framework for the two major categories of analysis, i.e. linguistic and visual analysis of the text. Language analysis involved sustainability themes (Savelyeva & McKenna, 2011), buzzwords related to sustainability (Cornwall, 2007), and framing (Alexander, 2010; Entman R. M., 1993).

3.3.2.2 Thematic content analysis of multimodal text

Different methods and techniques of mapping out knowledge and discourse content have been adopted in several studies, such as literature reviews (Wong & Zhou, 2015), content analysis (Park & Cai, 2017) and scientometric analysis (Montoya, Montoya, Gómez, Manzano-Agugliaro, & Alameda-Hernández, 2014; Zhao, 2017 in Olawumi & Chan, 2018, p. 233). Observing, visualizing, and noting down the data brings out certain common structures and signifiers that we relate to different themes. This method is effective in the verbal and visual analysis of multimodal text as it relates to being included as a scientific method highlighted in many linguistic and discourse based studies. Visualizations bring more clarity and statistical depth to the data. Mapping out the global research on sustainability, Olawumi & Chan (2018) reviewed scientometrically the perception of sustainable development from 1991 till 2016 using techniques such as co-authoring, co-word analysis, co-citation, clustering, and analyses on geospatial dimensions. The figure given below shows how key words and descriptive analysis is done in a systematic manner using software and observations on the topic of sustainability discourse. The content analysis of words and visuals is the best suitable scientific method as both content analysis and semiotic analyses are frequently employed in academic marketing literature and these websites are a representation of the discourse in the respective universities as well as a source of academic marketing and this is suitable for the sustainable development research. The current study has taken some ideas from this design but the overall elements of the above mentioned study could not be employed on a multimodal study as it is.

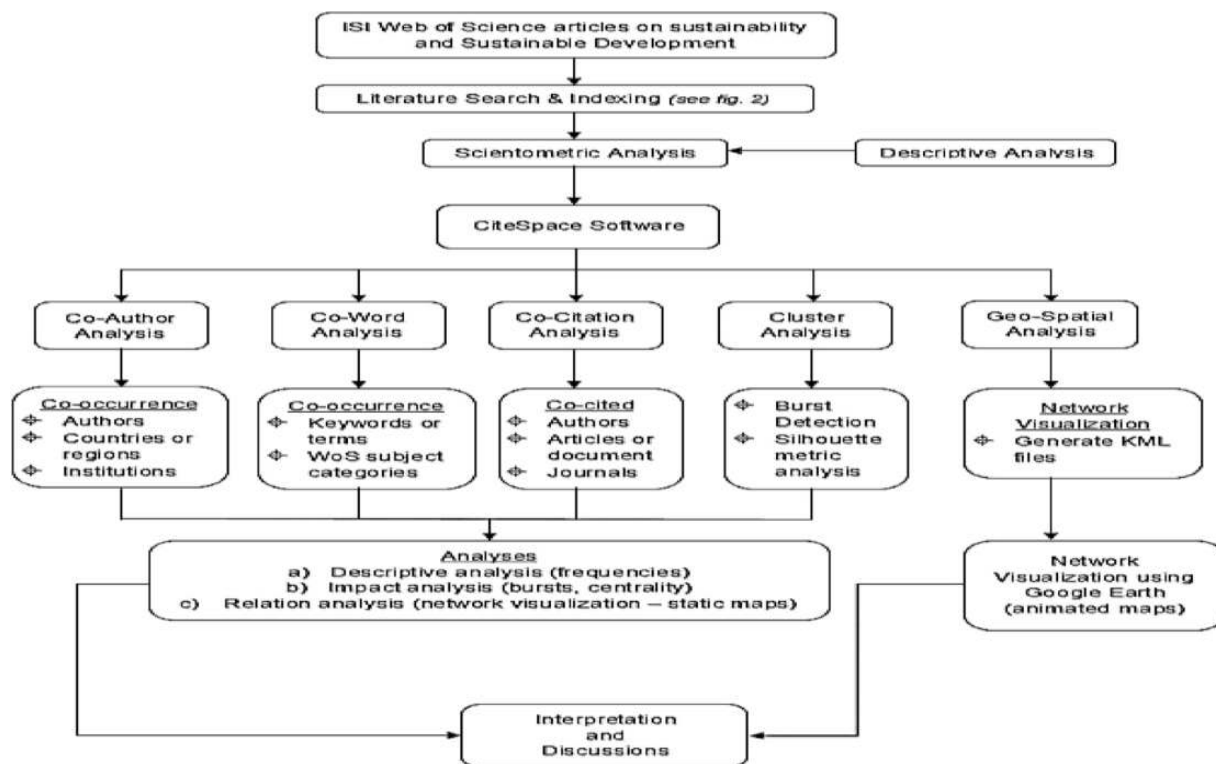


Figure 3.1 Outline of sustainable discourse research design in Olawumi & Chan (2018, p. 233).

For this study, a review of the websites was undertaken for the content posted within the specific time frame, starting at 4 p.m. on January 1st, 2018 and ending at 7 p.m. on October 15th, 2018. This time frame was enough to observe any changes in the website content and to add more relevant data to record the trends in the public and private sectors. Each website was reviewed manually. The data collection process was conducted in a strict step-by-step procedure. To avoid bias in the data interpretation, each university website was reviewed at least twice. The starting time for observations was usually around 4 p.m. to 7 p.m., as usually it is the off time of the day when the usual updating of the data is finished. It was regularly done three times a week throughout the entire time span to note if any changes had been brought about in the content (see Appendix IIIA for specific times and dates). There were not any major changes, except a few websites showed some additional material about the events or content related to the themes. These changes have been mentioned in the description of the observations noted in Chapter 4, i.e., 4.1.1, 4.2, and

4.2.1.3. These procedures omitted any potential misinformation to strengthen the findings and contribute to the validity and reliability of the data. Systematically, the review was conducted by typing the specific words to find target themes. Then, it was possible to become familiar with the sustainability agenda setting within universities by thoroughly reading the possible sources.

A software programme was used in this study to explore the recurring lexical items, and their frequencies so that we can explore a great deal of data. The software used for the analysis is as follows:

3.3.2.3 Antconc Software

AntConc 3.4.4w (Windows) (Anthony, 2014) was used to determine the frequency of keywords and the context in which they are used at different places in the text. This software was developed by Lawrence Anthony (2007). It is an authentic and free programme that has been used in this study to identify the most frequent keywords and find their frequencies. This data analysis programme has a feature to make word lists and locate the keywords in their verbal context. This software has been utilized for frequency counts for quantitative purposes for only the verbal content analysis of the sample.

For the current study, the concordance and context analysis common in corpus methods are not used as they were not the scope and objective of the study. There are some other technical reasons for this. For corpus analysis, a reference corpus is needed, but its ideal size is also debatable (Sardinha, 2000, October, p. 7). The better outcomes are not guaranteed for WordSmith Tools Keywords analysis with a larger reference corpus. In fact, a reference corpus that is less than five times the size of the study corpus might lack authenticity. Also, the number of keywords generated doesn't appear to vary when using corpora larger than five times the size of the study corpus (Sardinha, 2000, October, p. 7). What adds to the complexity of this issue is that the previous literature does not have proofs of adequate explorations of the impact of corpus size and composition on keyword calculation and its outcomes. Even the criterion that the reference corpus (RC) should be larger than the study corpus (SC) is controversial and lacks proper evidence. Some oppose this criterion by saying that it is inconsequential. (Tribble, 1999, p. 171; McEnery, Xiao, & Tono, 2006, pp. 308-311 as cited in Goh, 2011, p. 243). Important factors in keyword calculation are thought to be genre and diachrony in the specific cases and how far they can significantly impact keyword results. Additionally, it's important to recognize that differing keyword results obtained by using reference corpora of varying compositions do not always need to be interpreted within the framework of what constitutes a good or bad reference corpus, or which reference corpora are superior to others (Goh, 2011, p. 254). These subtleties are difficult to deal with when doing multimodal research. Also, the skills and expertise needed for a corpus analysis of the selected multimodal text were not easily available. Even if that had been managed, it would be an impossible task to handle such a great amount of representative data.

3.4 Techniques Used for Content Analysis

Two techniques were followed for doing content discourse analysis of the selected multimodal text.

- i. coding
- ii. framing

i. Coding as a technique for MDA

The process of analyzing data as coding was referred to Strauss & Corbin (2008). Coding is an intricate process which involves careful decisions on the part of the researcher as “Coding involves three levels of analyses: (a) open coding, (b) axial coding, and (c) selective coding, to gather a complete picture of the information obtained during the data collection process” (Strauss & Corbin, 2008 as cited in Kolb, 2012, p.84). Open coding involves comparison of data and identification of different categories and dimensions systematically. The second step of coding is “the axial coding procedure where data are pieced together in new ways after open coding allowing connections between categories” and “relating subcategories to a category is the main emphasis of the axial coding” (Strauss & Corbin, 2008 as cited in Kolb, 2012, p. 84). The third level of coding is ‘selective coding’ as “the process of identifying and choosing the core category, systematically connecting it to other categories, validating those similarities and relationships and then completing categories, that need further refinement and development” (Strauss & Corbin, 2008 as cited in Kolb, 2012, p.84).

Coding is significant in building conceptual frameworks, sampling, collecting relevant data and then analyzing in different ways as “The concepts and relationships that are developed through the coding process help guide the data collection and analysis process referred to as theoretical sampling” (Strauss & Corbin, 2008 as cited in Kolb, 2012, p.84).

ii. Framing as a technique for MDA

One of the features of discourse is ‘framing’. For this, careful selection of words and visuals has been done through a systematic procedure. Focus on frequency explores saliency and delimitation of data and explanation involves selection. Selecting high frequency words related to a certain concept like higher education sustainability is a way to explore framing as it “essentially involves selection and salience. To frame is to select some aspects of a perceived reality and make them more salient in a communicating text, ...” (Entman, 1993, p. 52). Key words are the main sign posts of frames present in the text as verbal signifiers as textual frames are formed from the key words and their relationships with the rest of the text “provide the basis for this methodology” (Vlieger & Leydesdorff,

2012, p. 5). The verbal and visual modes of the text are the devices of framing like "... schemata, frame packages, framing devices, and reasoning devices..... Framing devices include the word choice, metaphors, exemplars, descriptions, arguments, and visual images. ...” (Van Gorp, 2007 as cited in Janssen, 2010, pp. 23-24).

‘Framing’ is not only utilized in CDA but also used in discourse and content analysis studies as “In mass communication research, framing analysis can be located somewhere in between discourse analysis and content analysis, usually combining qualitative and quantitative methods” (Neuendorf, 2002 in Janssen, 2010, p. 27). Lexically, the concept of framing and its analysis take a different route, especially in terms of discourse analysis and content analysis as “Usually, it is the words that activate the surface frame firstly, and then the deep frame which is most abstract” (Zhang, Wang, & Zhang, 2014; Zhang et al., 2014, p. 31 as cited in Yang, 2018, p. 73). Words are the key signifiers for identifying frames in any written verbal text.

Verbal data may be non- metaphorical while the non-verbal data may be metaphorical as non-metaphorical ones are analyzed by words with high frequency while metaphorical need analysis of the conceptual metaphors beyond verbal information (Yang, 2018, p. 73). That is the reason that verbal and non-verbal frames have been collected and analyzed separately and higher frequency or commonality is the key to locate relevant themes and frames. This means that framing involves semantic and semiotic discourse analysis.

A comparison of words and other signifiers gives a better idea of the main frames and how they are used in discourse as “Comparative analysis also works for rhetorical analyses. Critics operating within a framing perspective are looking for cues of how language choices made by communicators (in our case, the press) push our thinking in particular directions” (Kuypers, 2009, p. 186). The comparisons of modes and sub-modes in this study w.r.t type of text (i.e. the still and dynamic text); w.r.t the nature of education sectors i.e. private and public; w.r.t type of signifiers i.e. verbal and non-verbal signifiers have also given clues of the frames used by the university websites in the Pakistani context.

Coding is also a process that requires human effort along with computational methods, as proved by Vlieger & Leydesdorff (2012), which supports the fact that computational methods do help, but human involvement is necessary to make the method and results reliable. For this purpose, coding and some counting were done manually in the study.

3.5 Definitions of some terms of visual sub-modes

The visual objects may be manually made or computer-generated. Some of them are quite redundant and used on websites, but they have been confused several times in terms of articulating in language, as these signify different meanings when used by different people. For example, the sub-modes of images, photos, and pictures are usually present on the websites, and they are used synonymously to describe the visual representation, either made manually or computer-generated. For this research, these terms have been used in the following sense:

i. Image

An image is generally perceived in the language of modes as related to perception or imagination as ‘visual conceptions of mind’. Image is different from other modes because it is more specifically rendered as a mental representation, an idea or concept which differentiates it from other modes of visual display. It can be individual as well as specific to a group or culture as “a popular conception ...projected especially through the mass media” (image, 2021).

It has been described more in terms of semblance which is exact likeness, i.e. “a physical likeness or representation of a person, animal, or thing, photographed, painted, sculptured, or otherwise made visible” (definition of 'image', 2021).

Oxford dictionaries metaphorizes an image to “a picture, photograph or statue that represents somebody/something” (image, 2021). It has also been used in literary terms as a figure of speech (image, 2021). In this study, this term has been used as a synonym for a photo or picture in the description.

ii. Picture

An important distinction of a picture is the “...lines and shapes which are drawn, painted, or printed on a surface and show a person, thing, or scene” (Picture,

2021). It must have an artistic background as “a work of art, as a painting, drawing, photograph, etc.; portrait; movie; any visual image; a person or thing resembling another closely” (picture, 2021).

‘Surface’ is important in a picture as compared to other modes as it is perceived as “a visual representation (of an object or scene or person or abstraction) produced on a surface” (picture, 2021).

The idea of being copied is of a transitory image, which is different from a still image in the meaning as a “MOTION PICTURE” or a “TABLEAU_” (picture, 2021). As synonyms with “an image seen on a television or cinema screen”; “a film” (picture, 2021) ; “A movie” (picture, 2021; Picture, 2021). This shows that a picture can also be called as a moving or dynamic visual as images in films and movies are also extensions of dynamic multi modal text i.e. videos. In this study, a picture is taken as ‘something made manually’.

iii. Photo

A ‘photo’ is perceived to be as real event photographs taken from a camera. It is “a picture that is made by using a camera that stores images in digital form or that has a film sensitive to light inside it” (photo, 2019). In this study, this term is used in the sense of digital photos of university events.

iv. Computer Generated Visual Sub Modes

An image is treated as a ‘modified visual object produced by a computer’ (computer hope issues, 2020). This visual product, when produced by a camera, digital camera, or photocopier, is called a ‘photo’ or ‘photograph’ (computer hope issues, 2020). On the contrary, a picture is a byproduct of manual or pencil drawing, painting, or any art work on a computer. It has also been used as a descriptive term for any visual creation using a camera or scanner. (computer hope issues, 2020). Other visual objects created on a computer may fall into their own category, such as clip art, graphics, illustrations, and screenshots.

v. Videos

Videos have been referred to as a separate mode. A video is “A sequence of images processed electronically into an analog or digital format and displayed on a screen with sufficient rapidity as to create the illusion of motion and continuity” (video media, 2011). It is also defined as “a program, movie, or other visual media product featuring moving images, with or without audio, that is recorded and saved digitally or on videocassette” (video, 2021).

Since multimodal texts are a combination of different modes, which may be static or moving, this research also segregates the visual (non-verbal) and verbal-only data into static and dynamic visuals and verbal text, respectively. For this reason, the visual and verbal data from videos have been collected and analyzed separately, and then compared to synthesize the findings and results.

3.5.1 Synonymous Use of Terms for Sub-modes

Certain synonyms show a distinctive feature of the mode of a picture, not only as a visual non-verbal text accompanying and highlighting the verbal text but also as verbal text that makes the reader imagine the message, which is very close to the real visual details of the object or subject focused on. Pictures are understood to be “illustrations used to decorate or explain a text” (picture, 2021), or “A vivid or realistic verbal description” (picture, 2021).

Some sources also suggest ‘image’ as a synonym of ‘picture’ i.e. the mode of the picture is also metaphorized with the mode of a photo in descriptions as “A picture is a photograph” (Picture, 2021); “a printed reproduction of this” (Picture, 2021). To put it in simple words, “A photo is a picture taken with a camera. A picture is any visual representation of a subject” (difference between picture and photo, 2021). An image is any picture file generated by a computer and a picture is a visual representation made manually and artistically.

This research uses the terms ‘*image*’, ‘*photo*’, and ‘*picture*’, which have been used alternatively at some places in the initial description, but it adheres to the sense of these modes as explained in the above paragraphs in the data collection and analysis process. A

visual, usually, is perceived to be “a photograph, film, or other display material” (Visuals, 2014). Appealing to the sense of sight only, it is often more integral to the static and dynamic text. It is defined as: “(often plural), the picture elements, as distinguished from the sound elements, in films, television, etc.” (Visuals, 2010).

In this study, the term ‘visuals’ has been used to connote the general mode, including both the oral and written mediums that may be of both verbal and non-verbal nature. However, there are some visual elements present too, e.g., color, slide show, visual sliders, menus, power point slides, banners, pictograms, graphic design, diagrams, charts, typography, infographics, graphs, animation, especially designed, verbal written text or a combination of some or all of these modes other than the well-defined modes like image, photo, picture, etc. These are all referred as sub-modes.

So, both verbal/nonverbal and oral/ written modes are termed ‘visuals’. In terms of multimodal discourse analysis, it should be kept in mind that

“Online communication is not only based on verbal language but on multiple modes of communication, in particular images (Hodge & Kress, 1988; Kress, 2000; Kress & van Leeuwen, 2006). The use of images is a core component of academic online communication. In a more and more visual culture, images are used to communicate a multitude of information, ideas, emotions and actions, and in some cases they convey what words cannot express (Fairclough, 2001). Similar to verbal texts, images are related to social conditions, and thus can influence the way a person responds to messages. Fairclough (1993) stresses the idea of visual language (e.g., videos, photographs, multimedia) being equally effective in conjunction with written and spoken materials. It is the combination of verbal and visual that creates the meaning of a message” (Nasti, Venuti, & Zollo, 2017, p. 137).

3.6 Validity of the Study

For a research study to be claimed to be valid, it must meet some criteria or standard to measure or analyse the data accordingly. It is the “degree to which a test measures what it is intended to measure” (Gay, Mills, & Airasian, 2011, p. 375). Measuring the data

effectively is of utmost importance and ‘validity’ is the criteria or degree for effectiveness of measuring the data (Gregory, 1992), or it “can also be thought of as utility” (Kothari, 2004, p. 73). External validity tells us the extent to which the results can be applied to other populations or situations. This study was designed to reflect the results that can be generalised to the website discourse, related to sustainability, of any average Pakistani university. The results brought by different modes, mediums of language, methods, and techniques enhance the validity of the findings. So, this study was an effort to combine qualitative and quantitative results to reach a conclusion.

Content validity, being a testament of a study’s content, highlights “the extent to which a measuring instrument provides adequate coverage of the topic under study” (Kothari, 2004, p. 74). To provide face-to-face or content validity to the test, the website content and a short sample analysis were presented to the selected members of a committee of teachers at NUML to give their comments and suggestions on the suitability of the contents according to the research questions and objectives. It is one of the strategies called “peer debriefing” (Gay, Mills, & Airasian, 2011, p. 376) to ensure validity. They responded very positively to it (see appendix-IX, p. cclxiv). The committee consisted of three experienced teachers who endorsed the orientations in the analysis and discussed some valuable suggestions about various possible dimensions of the topic under study.

The qualitative analysis in a study correlates different propositions and theoretical stances related to the analysis, which is built by different constructs of the topic, and that establishes their validity. Some strategies are used to provide validity in qualitative research, and these are used in the current study. These strategies helped in keeping a check on the bias and errors hindering the generalizability of the results. Such strategies include: data triangulation (Sandelowski, 1993; Long & Johnson, 2000); recognizing biases in sampling and engaging in continuous critical reflection of methods to ensure the data collected and analyzed is sufficiently deep and relevant (Sandelowski, 1993); Maintaining meticulous records, demonstrating a clear decision-making process, and ensuring data interpretations are consistent and transparent (Long & Johnson, 2000) where various methods and perspectives contribute to a more concrete set of findings (Fraser & Greenhalgh, 2001; Kuper, Lingard, & Levinson, 2008 in Noble & Smith, 2015). To eliminate the researcher’s bias, using ‘triangulation’ in the sense of being “a validity

procedure where researchers search for convergence among multiple and different sources of information to form themes or categories in a study” (Creswell & Miller, 2000, p. 126). This type of triangulation has been used in the current study as different modes, types of text, and signifiers represented the selected themes.

3.7 Reliability of the Research

One of the qualities of good research is its ‘reliability. In quantitative research, the term means that the possibility of replication using a similar methodology endorses the reliability of the research instrument. It refers to the degree of ‘consistency’ of results over time and ‘accuracy’ of reflecting the entire focused population (Joppe, 2000, p. 1) which deems representativeness equivalent to being reliable.

Consistency is the key to reliability. Defining ‘reliability’ in qualitative research as compared to quantitative one is rather complicated. Broadly speaking, it has an evaluative impetus in quantitative studies with a “purpose of explaining” while in the qualitative studies, it has the purpose of “generating understanding” (Stenbacka, 2001, p. 551). Reliability is, therefore, likened to ‘comprehension’ or understanding level in qualitative studies, and this is true for this study too.

A sort of agreement or suggestion from the raters and evaluators other than the researcher is one way to determine this triangulation and reliability, known as the inter-rater reliability test. The results of nominal or categorical codes are checked by the percentage or frequency of the times in terms of the raters’ agreement on them. It is not a chance or coincidental agreement (Uebersax, 1987). ‘The joint probability of agreement’ is one of the simplest types of reliability. In research involving qualitative content analysis, the process of coding is usually considered to be one of the most sensitive stages of data collection and analysis, as its reliability can make the whole methodology and method of the study questionable. So, great care has been taken in this study to ensure this. For assessing the strength and vigor of coding frame and the conceptual understanding of the themes found in the data, it has been testified that in most of the qualitative analyses, this entails creating a ‘coding frame’ that captures the key analytical aspects of the data. A list of codes with their definitions, classified into some categories that are higher-ordered, and illustrated with examples of data segments may make up this coding frame. This frame is

useful because it “constitutes the analytic instrument with which the raw data is reduced, classified, and synthesised into a more conceptual framework” (Gaskell, 2000 as cited in O’Connor & Joffe, 2020, p. 2). This does not stop just at formulating the coding structure; it moves on to the next phase of clustering codes, according to the approach adopted for analysis, into “themes or narratives that are interpreted according to relevant theory. It is generally accepted that different analysts, with different theoretical commitments, will organize codes into themes in different ways” (Armstrong, Gosling, A., Weinman, & Marteau, 1997 as cited in O’Connor & Joffe, 2020, p. 2) which saves the study from disorganised and inappropriate coding, thus making the data more trustworthy. In this study, the main coding frames are the three themes of campus sustainability.

The role of a qualitative researcher role is not entirely restricted to explore factual data and follow objectivity but to identify various dimensions, perspectives, abstractions and affective filters regarding the study and to interpret while implying their command on theoretical aspects. So, “within this epistemological framework, researcher reflexivity and active personal engagement with the data are resources, not “noise” to be minimized” (Yardley, 2008 as cited in O’Connor & Joffe, 2020, p. 4). This is not ‘subjectivity’ but following the ‘Humanities’ i.e., keeping the human subjects and objects in mind, which are fluid in nature, and without their involvement, a true picture of the data cannot be presented.

Interpretations, perceptions, opinions, and literature reviews can also be used for the data presentation of the qualitative studies as “Numerous measures of ICR are available. Previous reviews of the literature indicate the most common method is simply reporting the percentage of data units on which coders agree” (Feng, 2014 as cited in O’Connor & Joffe, 2020, p. 4). Therefore, this study uses percentages to show certain trends in signifiers. Technology has also helped in providing more tools for this, but manual and human highlighting and rating are equally authentic and more efficient in many ways, as some researchers prefer or are compelled by limited resources to conduct analyses manually despite the widespread use of qualitative software packages. For researchers without access to specialized software who wish to calculate ICR, “such as Microsoft Word (e.g., by indexing the codes through the “Comment” function) or tabulating assigned codes in a spreadsheet would make the inter coder comparison more efficient” (O’Connor & Joffe, 2020, p. 5). This is easier, more convenient, and free of any technological or statistical hitches. The study has used the ‘find’ option in Microsoft Word to explore the frequency of verbal and visual frames in the text and observations.

3.8 Ethical Concerns

Institutional websites and web pages were the direct subjects and units of analysis. This type of data is mainly public in nature, and it is open for public use or reference. The data collection and analysis do not need any human interaction or risks to influence the privacy and confidentiality of the people or organization. It does not fall under the rules and regulations of the ethical guidelines as laid out by Pakistani academic institutions. As there was no personal information or individual institutional discussion, permission or ethics approval was not necessary for the study (Strong & Gilmour, 2009). It is sensitive research about the presentation of themes by selected Pakistani universities, and this kind of research has “Fear of scrutiny and exposure” (Payne, Dingwall, Payne, & Carter, 1980 as cited in Cohen, Manion, & Morrison, 2007, p. 119). Still, care was taken about not selecting any information which was specifically intended for specific audience. Also, any direct discussion on the university’s policies or decisions was avoided and one of the reasons for not choosing CDA as a method for this study was to avoid highlighting any

one university's choices and they have been chosen as a sample just for the content analysis for the specific discourse themes of campus sustainability.

3.9 Data Collection

The data for this study was collected from the websites of 12 universities that were chosen as representatives from both the public and private sectors of Pakistan. The data from the selected universities was collected, i.e., the selected links and home pages of the websites. The sampling criteria are purposeful in nature, as explained above in the sampling procedure. Formally, the data collection process covered a time period of over 8 months, i.e., January 2018 to October 2019.

3.9.1 Population and Settings of the Study

The settings of this multimodal study is the observation of 'interactional setting' as the discourse analysis of themes and signifiers of campus sustainability caters such interactions of verbal and non-verbal texts as well as other categories of interactions. Morrison (1993), describing this as i.e.

the physical setting (e.g. the physical environment and its organization); the human setting (e.g. the organization of people, the characteristics and make-up of the groups or individuals being observed, for instance, gender, class); the programme setting (e.g. the resources and their organization, pedagogic styles, curricula and their organization)" (p. 397).

Websites are the best source to investigate the level of campus sustainability discourse since they are administered by the university, and that is why the credibility of the information is unquestionable. The population for this research consists of all the websites of all Pakistani universities from both the public and private sectors. But it is impossible to collect data from such a large population. Therefore, certain criteria were decided to delimit the sample data to derive a sample for representing this population, which are described as follows in the research sample size.

3.9.2 Sampling

The research sample size consisted of the websites of twelve prominent universities representing all the areas of Pakistan from both the public and private sectors. Six of them

represent the public sector, and the other six universities have been selected from the private sector to give equal representation to both sectors. The main data sample consists of text and images, as well as videos and audios available on the websites of both public and private universities in Pakistan.

The reason for selecting a limited number of websites for the sample was that there are a large number of universities in Pakistan already existing and slowly emerging from both the private and government sectors. Encompassing such a large number cannot be managed in a single study. Secondly, each university does not represent different educational backgrounds that are representative of Pakistani learners' ecology. Thirdly, every university that is recognised by HEC does not have an organized, multimodal website carrying data according to campus sustainability themes. Most of the universities present just the necessary information related to admissions and disciplines or some promotional material, which does not give enough content for collecting content according to the current topic of discourse in focus. Abstraction is necessary to create a representative sample for such content to manage the data collection and analysis requirements.

The selection of the universities was based on their HEC rankings, the UI green metric rankings, and the relevant data available according to the themes and objectives of the study. For example, IIUI was selected due to its claim for the vision of Islamic culture and disciplines. FAST-NUCES was selected as it is one of the most advanced institutions for the study of science and technology in Pakistan. NUML has a distinct place among all the universities in Pakistan due to its emphasis on languages as a modern necessity for sustainability. Other universities and their reasons for selection have been listed in the appendix XI (see p. 100- 100)

Some were prominent and high-ranking universities, but these universities were not selected as they have few campuses or don't have any campuses except the main campus throughout Pakistan; they offer very limited and specific disciplines like engineering, medicine, etc. Some universities have little or no data at all related to campus sustainability themes on their websites. Such universities have also been given preference because they have more data according to campus sustainability themes and can cater to the regional or provincial representation of Pakistani university education in both the public and private sectors. Though most of the sample was taken from the HEC rankings published in 2015

for the universities, the researcher also considered the relevant data available on their official websites as HEC in 2018 withdrew further ranking of the universities on different criteria due to inadequate data (see appendix XI, p. 101)

It was a kind of random purposive sampling. Based on the above-mentioned criteria, a sample was selected through the random purposive sampling technique. Purposive sampling or judgement sampling is “the process of selecting a sample that is believed to be representative of a given population” (Gay, Mills, & Airasian, 2011, p. 136). Criteria were defined by the researcher using his or her experience and knowledge of the sample group.

The procedure involves the stages of data collection and data analysis which were employed in the following manner.

3.9.2.1 Research Sample

Following is a list of the selected universities’ websites which were analyzed:

Public sector:

- i. International Islamic University, Islamabad. (International Islamic University, 2018).
- ii. Air University (Air University, 2018).
- iii. Karakorum International University (Karakorum International University , 2018).
- iv. COMSATS Institute of Information Technology (COMSATS Institute of Information Technology, 2018).
- v. National University of Modern Languages (National University of Modern Languages , 2018).
- vi. NUST (National University of Science and Technology, 2018).

Private sector:

- i. IQRA University (IQRA University, 2018).
- ii. Qurtaba University (Qurtaba University , 2018).
- iii. Hamdard university (Hamdard university , 2018).

- iv. SZABIST (Shaheed Zulfiqaar Ali Bhutto Institute of Science and Technology, 2018).
- v. FAST-NUCES (FAST-NUCES , 2018).
- vi. University of Lahore (University of Lahore, 2018).

The three main links were selected to be used for collecting data sample from each university as necessary criteria to collect the representative content and required themes.

- 1. The Home page
- 2. The About Us page
- 3. ORIC page or QEC (in case of absence of ORIC page)

The following subsidiary links on these pages have been also followed for the sample.

- i. Vision and mission
- ii. Latest news and events
- iii. Student services department
- iv. Memberships/ Partnerships/ rankings related to sustainability themes
- v. Campus video
- vi. Related visuals and sub-links/pages according to themes
- vii. Newspaper publications related to sustainability themes

These pages were chosen because they are the most visited. The home page is the most important page of the website because it gives firsthand knowledge about the university and creates a snapshot of the overall activities and management of the university. An image and identity are built through text and visuals like color, logo, slogan, images, videos, etc. The 'About' page shares the origin, foundations, and organisation of the university. The discourse on the 'About Us' page focuses on describing the ideology, purposes, and actions of universities in their domains and sectors. The campus sustainability discourse themes are mostly found in the vision, objectives, and mission statements of the universities, and to have best practices, higher education institutions need such statements and a sustainability committee of their own to implement and assess

them. Some pages related to the selected three themes were also selected as samples for analysis, especially the visual and verbal descriptions of the university's plans, policies, and ongoing projects as "Sustainability plans are another means used by HEIs to communicate sustainability-related information online. They are often used as tools to guide the integration of sustainability into the institution's practices and operations" (White, 2014 as cited in Amey, Plummer, & Pickering, 2020, p. 6).

The following is the selected data sample of videos found on the university websites, their titles and location.

Public sector:

Sr.#	University's name	Video title	Location on website
i.	Air University	Air University Islamabad Documentary 2018 HD	Home page (Air University Islamabad Documentary 2018 HD, 2018)
ii.	COMSATS Institute of Information Technology	Comsats virtual tour video	Home page (Comsats virtual tour video, 2018)
iii.	National University of Modern Languages	Life at NUML	home page (Life at NUML, 2018)
iv.	NUST	No video officially uploaded after that time. NUST video made by student	videos section on home page

Private sector:

Sr.#	University's name	Video title	Location on website
i.	IQRA university (Karachi, Islamabad, Quetta)	Iqra university (2 minutes tour of IU)	Home page (Iqra university (2 minutes tour of IU) , 2018)
ii.	Qurtaba University, Peshawar, KPK	Qurtuba official	(Qurtuba official , 2018)
iii.	Hamdard university	<u>Life at HU – Hamdard University</u>	Home page (Life at HU – Hamdard University , 2018)
iv.	FAST-NUCES	FAST National University	Home page (FAST National University, 2018)
v.	University of Lahore	UOL, Islamabad campus video	Home page (University of Lahore , 2018)

3.10 Data Analysis Method

The process of data analysis involved mode analysis as well as verbal and visual content analysis to constitute multimodal discourse analysis. In terms of content analysis, the data was analyzed in terms of frames of themes, lexis and signifiers which make up the

thematic, linguistic and semiotic analysis integrated to the modes / sub-modes constituting the campus sustainability discourse.

3.10.1 Levels of Analysis

The analysis w.r.t. content was of three types, which were integrated and overlapping in nature, but an effort was made to distinguish them and highlight them separately. Overall, it is a semiotic analysis that includes thematic and linguistic analysis.

3.10.1.2 Semiotic Analysis

The semiotic analysis was done through the visual analysis. The collected data was analyzed in the following way: The multimodal text in its visual form (both verbal and nonverbal) was observed, and a university-wise description and analysis were done to locate the themes of the text along with the frequency of such visuals. This was then analyzed in terms of the private and public sectors separately.

- i) First, the observations w.r.t. semiotic dimensions were done throughout the text by identifying the more frequent or salient, which were both verbal and nonverbal signifiers common to both the public and private sectors.
- ii) These signifiers were also compared w.r.t. their saliency in the public and private sectors as the most or least frequent or being present in only one sector. The most common signifiers for both sectors were then listed and compared in terms of frequency.
- iii) Their thematic analysis was done concerning the selected three themes of campus sustainability discourse. Their denotative and connotative meanings were illustrated with the help of different references and studies to validate the analysis of the observer and to avoid any biases for the topic under focus. The help and suggestions from the peer reviewers were also considered to analyze the content concerning the themes.

3.10.1.3 Analysis of Visual Text

For this, the following steps were taken:

- i) First, the data collected from selected links was described as it appears on the website. These are the first raw observations noted by the researcher and shown to peers to check for any biases.
- ii) These observations were then tabulated in terms of signifiers, modes, and themes of the visual language (both verbal and nonverbal) on the websites. The term ‘visual’, used in this study, is meant to highlight both verbal and nonverbal language in both written and oral mediums. Therefore, the subsequent analysis encompasses both facets, i.e., words and audiovisuals, as textual frames. First, the descriptions and observations were outlined and put into tables in the static text. Then, the same is done for the dynamic text.
- iii) These qualitative observations were then counted in terms of frequency to determine their saliency in both the private and public sectors. The common signifiers for the public and private sectors were outlined and compared to see their salience in terms of frequency. These most frequent signifiers were taken to be ‘frames’ of non-verbal and verbal text.
- iv) The themes were then associated with these frames, and their salience was analyzed. The higher frequency of the signifiers considered ‘frames’ has been analysed semiotically with regard to the thematic and linguistic dimensions of campus sustainability discourse. Following are the two levels on which this semiotic analysis was done.

- I. Thematic
- II. Linguistic

I. Thematic Analysis

The following three categories were coded for collecting data, delimiting it, and analyzing it according to the selected three themes of campus sustainability discourse. The main points of these themes are:

1. Greening

- all types of environmental concerns
- campus facilities (related to environment)
- energy and water efficient technologies/ energy conservation
- campus recycling initiatives
- environmental impact specification for cleaning products, laboratory equipment, paper, and building materials, physical infrastructure etc.
- Energy and Environmental Design (LEED) certified buildings
- Plantation activities / movement
- Measures for environment improvement e.g. health, safety, poverty, waste, climate change etc. (Savelyeva & McKenna , 2011; Savelyeva & Park, 2012, p.186-187).

2. Sustainability Sciences

- several sustainability efforts with research being its main feature.
- Efforts for internationalization/globalization
- introducing scientific innovations/technology
- The knowledge base for an ecologically enlightened society/ Knowledge structuring of issues
- New disciplines/ fields
- Economic and environmental topics/steps
- Policies, plans, initiatives, solutions
- Interdisciplinary approaches
- Entrepreneurship
- Critical thinking skills (Mathisen, 2006; Savelyeva & Park, na, 2012; Spangenberg, 2011).

3. Education for Sustainability (ESD/ EFS)

- infusing sustainability into a university's teaching and learning
- sustainability-related courses offered e.g. environmental sciences, earth sciences etc.
- seminars/ conferences
- sustainable-practices training (for administrative staff)

- “curricular greening” workshops (for faculty members)
- introducing community service programs; external grants
- awareness campaigns
- citizenship/ social work
- inducting social and personal values (Savelyeva & Park, 2012, p.188).

The above-mentioned three major themes are actually the main frames of campus sustainability discourse. The points mentioned under these themes are actually the subframes that give rise to verbal and nonverbal signifiers.

II. Linguistic Analysis

The analysis is all verbal in nature. The linguistic analysis goes side by side along with the multimodal and content analysis of the data. As a visual mode, the language text integrated with the nonverbal modes was analyzed in terms of thematic frames or verbal signifiers in the content analysis. As a verbal only mode, it was focused for the linguistic analysis in terms of exploring the most frequent frames/ signifiers in the written text collected from both the static and dynamic text. The highly frequent verbal frames from the static text as well as dynamic text have been outlined separately and then, they were compared with each other so that the trend of using certain verbal frames in the written text of websites could have been analyzed in both type of texts. The linguistic analysis starts with generating the wordlists through Antconc. and picking out only five highly frequent content words along with three most frequent key words from the lists. These key words were selected keeping the concept of buzzwords of sustainability as presented by Andrea Cornwall (2007). Their high salience in the text is the characteristic that makes them verbal frames in the selected text. This sort of verbal framing was kept in line with Entman’s description of verbal frames.

3.10.2 Analysis of Verbal Text

The following steps were taken for analyzing the verbal data collected in the still and dynamic texts.

- i) First, the selected verbal written text was copied and pasted into rich text documents and imported into an authentic and popular software, i.e., Ant. Conc., which is a tool used for concordance and text analysis by the researchers. The

collected textual data was saved in a Word document. It was divided into two separate word files as 'public' and 'private universities' textual data and then converted into.txt files in order to process in the Ant Conc. software.

- i) Secondly, the word lists obtained from the software that were prepared were then edited for the relevant words related to the themes of campus sustainability discourse, as mentioned above. Their frequencies and salience with ideas were noted to explore their framing properties. Finally, the top five most frequent frames were analyzed for their frequency and congruence with the non-verbal text of the static and dynamic data.

3.10.3 Analysis of Modes and Sub-Modes

The analysis of the modes and sub-modes found in the text was also one of the parts of the analysis. These signifiers related to the themes were also analyzed in terms of the frequency of modes and the sub-modes in the static and dynamic text. The following steps were taken to analyze them:

- i. Modes were observed and noted down in the initial descriptions and notes.
- ii. Later, they were highlighted in the tables to show their meaning-making process in terms of signifiers and themes. Their frequency was determined in terms of public and private sectors.
- iii. The highest or lowest frequency showed the saliency/presence of certain visual and verbal modes and sub-modes communicating the signifiers of the themes of campus sustainability discourse.

3.11 Procedure of the Study

The following procedure has been employed for the study.

1. First, observations from the static text of each university were described concerning the selected themes that the modes and sub-modes were presenting through different signifiers on the websites, and they were put in the form of tables.
2. A thematic analysis of the signifiers (verbal+ nonverbal) in both the private and public sectors was done concerning the selected three themes. Comparisons were also made in terms of frequencies in each sector.

3. The frequencies of the individual modes as well as their combinations that were observed in both the public and private sectors were outlined and tabulated.
4. A comparison of the modes of the dynamic text was done later.
5. Visual (verbal + nonverbal) signifiers at higher frequencies were outlined, which were common among the universities. Their comparison of frequency within the static and dynamic text of their public and private sectors separately as well as between them was also done.
6. The linguistic analysis was done as the verbal text was also explored separately through the software, i.e., Antconc. Among the highest frequency key words that relate to the selected three themes of sustainability, the top five key words from the text of both sectors were selected for the analysis. These verbal signifiers were compared in terms of their frequencies and related themes. They were also compared with respect to both types of texts in both sectors.
7. Common signifiers from the visual and linguistic analysis in the static and dynamic text were also outlined, and their frequencies were compared.
8. The common signifiers were discussed as ‘subframes’ of the three selected themes that are taken as the main frames of campus sustainability discourse.

3.12 Theoretical and Conceptual Framework

For analyzing the discourse related to sustainability, following theories and concepts were operationalized and delimited for this study.

3.12.1 Theoretical Framework

As the study involves audio-visual elements of different types of multimodal text, the main theoretical framework that governs the analysis is the theory by Kress and Leeuwen (1996).

The multimodal theory is based on the social semiotic approach, which draws upon Michael Halliday’s (1978, 1994; Halliday & Matthiessen, 2004) systemic functional (SF) theory for conceptualizing the complex array of semiotic resources. These resources are multimodal and are used for creating meaning (e.g., language, visual imagery, gesture, sound, music, three-dimensional objects, and architecture). They may also be helpful for analyzing the meaning arising from the integrated use of those resources in communicative

artifacts (i.e., texts) and events. The study of communication from this perspective seeks to identify and select the semiotic options that are available to communicators and that they choose to make. These options should be seen not as fixed but as having meaning potential that is realized in context and in combination with other choices (GLOSSARY OF MULTIMODAL TERMS, 2012).

For exploring the discourse of sustainability on websites, the theory of social semiotics will be employed for the visual analysis of images, pictures, and videos available. Social semiotics is concerned with “the way people use semiotic resources both to produce communicative artifacts and events and to interpret them ... in the context of specific social situations and practices” (Leeuwen, 2005: preface).

Kress and Leeuwen’s stance on exploring visuals is the main framework of this study because they emphasize that “[l]ike linguistic structures, visual structures point to particular interpretations of experience and forms of social interaction” (1996, p. 2). They are of the view that “[e]xpressing something verbally or visually makes a difference” (Kress & Van Leeuwen, 1996, p. 2) and therefore, this study engages with the visual analysis that includes the semiotic resources that would be connected to the campus sustainability efforts of the university, e.g., color, images, framing, and content in audiovisual forms of texts.

3.12.2 Conceptual Framework

This research is carried out at three levels: conceptual analysis, linguistic analysis, and semiotic analysis. The following concepts have been operationalized in this research.

The first step is the conceptual analysis of the texts (on websites) under selected conceptions. Patton defines conceptual or content analysis as “any qualitative data reduction and sense-making effort that takes a volume of qualitative material and attempts to identify core consistencies and meanings” (2002, p. 453). Conceptual analysis is an apt technique for websites as it is “the study of recorded human communications, such as books, websites, paintings, and laws” (Babbie, 2010, p. 530). The three themes that are used as conceptual categories to collect data in this research have been taken as the main frames of campus sustainability discourse. These are explained as follows:

Savelyeva and McKenna (2011) presented campus sustainability in three main categories “greening, sustainability sciences, and education for sustainability” (pp. 55-66).

1. *Greening* involves all types of environmental concerns, such as matters related to Energy and Environmental Design (LEED) certified buildings and campus facilities; energy and water efficient technologies; campus recycling initiatives; environmental impact specifications for cleaning products, laboratory equipment, paper, and building materials, etc. (Savelyeva & Park, 2012, pp. 186-187).
2. *Sustainability sciences* involve several “sustainability efforts with research being its main feature. The idea is that universities as research institutions "could and should develop much of the knowledge base for an ecologically enlightened society" (Mathisen, 2006, p. 111 as cited in (Savelyeva & Park, 2012, p. 187). Efforts to gain internationalization or globalization and introduce scientific innovations or technology are also examples.

The main terms pointing to the theme of “Sustainability Science is research and education that result in new knowledge, technology, innovation and holistic understanding which will allow societies to better address global and local sustainability challenges” (Adom̄bent & Aricò, 2016, p. 1). This also includes interdisciplinary research related to issues of society as

Sustainability Science can include disciplinary, interdisciplinary and transdisciplinary science. It can be geared towards the generation of basic knowledge, towards applied technology or towards sociocultural innovation as well as towards new governance or social and economic models. Sustainability Science is an expression of both academic freedom and of academic responsibility towards societal issues” (Adom̄bent & Aricò, 2016, p. 1).

The production of ‘knowledge’ makes this the main term to communicate the frame of the theme of *Sustainability Sciences* as

co-production of knowledge can be instrumental to leverage the vast potential of diverse cultural resources to promote sustainability in the wider

community through better understanding of and contributing to knowledge, attitudes, values, life styles and narratives” (Adomβent & Aricò, 2016, p. 2).

This theme is mainly academic, and it is itself a methodology, but it involves non-academic strata of society too as

Sustainability Science is crosscutting science by nature, having as a major goal to seek complementary cooperation between natural and social sciences, the humanities, the arts and, in particular, to ensure the participation of diverse non-academic stakeholders, through a collaborative process of co-design, co-production and co-management” (Adomβent & Aricò, 2016, p. 3)

3. *Education for Sustainability (EFS)* “converge in infusing sustainability into a university's teaching and learning that are intended to engrave stable and lasting dispositions in students and academic staff” (Savelyeva & Park, 2012). These include sustainability-related courses offered e.g. environmental sciences, earth sciences etc.;

sustainable-practices training (for administrative staff) and "curricular greening" workshops (for faculty members); introducing community service programmes. These initiatives at the curricular level are typically offered with the support of external grants, and the access to funding generally affects whether a university can offer such workshops” (Savelyeva & Park, 2012, p. 187).

The levels of analysis, i.e. thematic, linguistic, and semiotic framing, have been operationalized in this study through the conceptual elements that have been mentioned above. Following the framework of Savelyeva and McKenna (2011)'s campus sustainability, the main framing of the visuals has been studied through Kress and Leeuwan's visual framing as

“By ‘framing’ we meant, in that context, the way elements of a visual composition may be disconnected, marked off from each other, for instance by frame lines, pictorial framing devices (boundaries formed by the edge of a building, a tree, etc.), empty space between elements, discontinuities of color, and so on. The

concept also included the ways in which elements of a composition may be connected to each other, through the absence of disconnection devices, through vectors, and through continuities and similarities of color, visual shape and so on” (Van Leeuwen, 2005, p. 7).

For verbal, including the visual framing, the concept of buzz words and key words have been selected to analyze. For detecting framing, focus on “...key words, metaphors, concepts, symbols, and visual images... frames are fashioned by particular words and phrases that consistently appear within a narrative” (Entman R. M., 1993 as cited in Kuypers, 2009, p. 191).

For linguistic analysis, the idea of frames given by Alexander (2010) is relevant as he talks not only about the ecolinguistic discourse analysis through CDA but the clustering of linguistic features that make the discourse “work” (2010, p. 502) such as agency, metaphor, pronoun use, frames and modality, and then judging the worldview in comparison to the analyst’s ecosophy” (p. 502). Evidence and values form the basis of this ecosophy. He also links it up to sustainability discourse. He suggests that the primary way to achieve sustainability is through critical awareness of language, which occurs at various levels, and one of them is through connection with nature by means of “the promotion of positive alternative discourses that inspire people to reconnect with the natural world and protect the systems on which life depends” (p. 502). This focus on linguistic features is an important element in identifying the discourse of campus sustainability. The feature of ‘frames’ has been chosen among linguistic features for both verbal and nonverbal signifiers in the discourse of campus sustainability. For linguistic analysis w.r.t sustainability discourse, the concepts of key words, buzz words and frames have also been used. Andrea Cornwall (2007) talks about the importance of using certain ‘buzz’ words and ‘fuzz’ words in development discourse. These words have acquired the status of special jargon or catchword or phrases “that need to be sprinkled liberally in funding proposals and emblazoned on websites and promotional material” (p. 471). The lexical aspects of sustainable development discourse are distinguished as ‘buzz words’ which are in vogue for describing this concept. For example, development, poverty etc.

Development's buzzwords are not only passwords to funding and influence; and they are more than the mere specialist jargon that is characteristic of any profession. The word development itself, Gilbert Rist observes, has become a 'modern shibboleth, an unavoidable password', which comes to be used 'to convey the idea that tomorrow things will be better, or that more is necessarily better'" (Cornwall, 2007, p. 471).

Some more examples of buzz words in sustainability discourse are

These words capture one of the qualities of buzzwords: to sound 'intellectual and scientific, beyond the understanding of the lay person, best left to "experts"' like social capital, empowerment, Equality and gender, Community and citizenship, Community participation, social protection, Security, Faith-based, peace building and sustainability; words with changed meanings/interpretations like " environment as sustainability (Scoones); planning (development institutions' preoccupation of that age) as harmonisation (Eyben) (their preoccupation in this one)" (Cornwall, 2007, p. 471).

For website discourse, Pauwel's multimodal framework for analyzing websites (2012) and description of verbal signifiers (2008), as discussed in Chapter 2, have been employed.

The overall diagram of these concepts, which were followed in the description and analysis of the collected data, is elaborated as below:

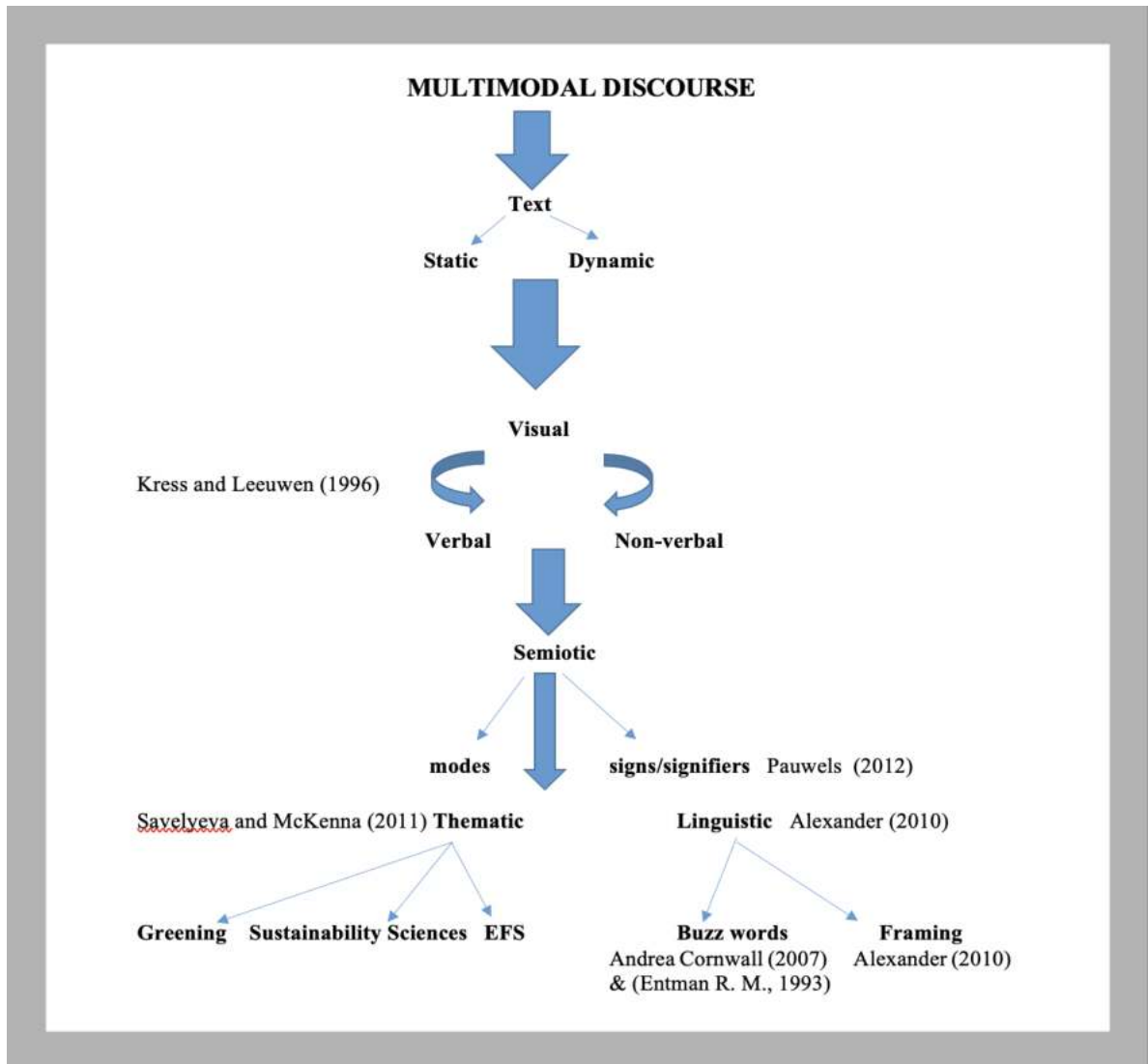


Figure 3.2 Conceptual model for analysis of the current study

This chapter clarifies the main methods and methodologies used in this study, and it navigates the design of the procedure adopted by referring to the various courses of action that have been adopted by the previous studies and the conceptual or theoretical frameworks that provide a sound basis for doing the analysis and drawing conclusions for the current study.

CHAPTER 4

DATA ANALYSIS

This chapter includes a description of the process of selecting relevant criteria and delimitations after data collection for the stage of data analysis in the research process in the current study. Then, it analyzes the collected data and sample as previewed in Chapter 3. The analysis has been done keeping in view the objectives and research questions of the study. In the end, the inferred findings have been presented from this analysis. The chapter starts by explaining the process of codifying different contents related to the selected themes of campus sustainability. Then, it explains the process of data analysis by presenting the observations and describing them. After summarizing the themes embedded in the form of modes and signifiers in both the static and dynamic text quantitatively, the modes were also focused in terms of their frequency and prominence in of the public and private sector data. Then, an analysis of the verbal data of both texts and the highly frequent signifiers has been highlighted. Further, the analysis of visual data, which is prominently nonverbal but also accompanied by the same verbal illustration, has been chalked out in the form of tables, pie charts, and graphs, along with explanations text- and sector-wise. In both verbal and nonverbal visuals, the frequent signifiers have been enlisted and compared to form an analysis concerning the themes of campus sustainability.

4.1 Thematic Coding for the Sample Text

As described in the last chapter, the selected three themes of campus sustainability were the codes for the delimitation and collection of the required data as far as various levels of analysis were concerned. These codes were used to select the signifiers in various modes of the static and dynamic text (see 3.12.2 Conceptual Framework, p. 110).

The analysis starts with the observations of signifiers found in different modes (visual and verbal) in the static text first and then in the dynamic text. A qualitative description of the data found relevant to the three themes has been discussed. After the observations, a summary of the total number of occurrences of each theme in the public and private sectors has been given in the quantitative account. The most frequent themes have been highlighted and presented in terms of frequency at each university.

In the next step, the manual counting of the modes and submodes through the signifiers of the themes of campus sustainability found in the static text was done, and their lists were generated. Their analysis was done by describing the most frequent modes in both the public and private sectors. The same pattern of analysis was repeated for the dynamic text. After that, a frequency-wise comparison of modes having signifiers of campus sustainability within the static and dynamic text has been carried out.

The linguistic analysis starts with the analysis of all the selected verb text processed in the form of keyword lists through the Antconc software. Only the top five most frequent words, along with two or three very important key words related to the themes of campus sustainability, were compared with respect to the type of text (static or dynamic), sectors (public or private), as well as the nonverbal signifiers. The most frequent ones were highlighted with respect to the selected three themes, and they were labelled as the frames of campus sustainability discourse. The semiotic analysis repeats the same pattern but the comparison is among the visuals (including both verbal and nonverbal signifiers) in both types of text and in both types of sectors. In the end, inferences are made with respect to the themes.

4.1.1 Observations of Multimodal Signifiers

A theme-wise observation analysis of each university has been done by describing the observations and analyzing themes in terms of the selected three themes of sustainability. Following are the observations taken from the visual data of the websites, which have both verbal and non-verbal modes of text. From these modes, the signifiers were observed, which make up the frames of the discourse conveying the themes of campus sustainability. The observations were put in the form of tables for a clearer illustration of the data and to

count the frequency of signifiers, modes, and themes. These tables have been put in the appendix as

- A. tables of static visual text (public) see the appendix IV (pg. cxcvi-cclxxii)
- B. tables of static visual text (private) see the appendix IV (cxcvi-cclxxii) .

4.2 Visual Data Analysis in the Static Text

The analysis focuses on the text data collected from the pages and sub-links that were found relevant to the themes through individual and common modes in static and dynamic form. There were signifiers of this discourse having different linguistic and non-linguistic frames relevant to the themes and the patterns of such themes displayed on both the private and public sector websites of Pakistani universities. These universities construct this discourse by using different modes and signifiers. The visual mode of the texts examined included both the nonverbal and the accompanying verbal signifiers. The verbal mode was examined separately as keywords, which is the linguistic analysis of the sample text. These have been explored and analyzed through their frequencies. It should be noted that the value of the frequencies of context is the approximate number presented in the tables, as some terms or signifiers have been repeated in the same sentence or mentioned somewhere else in the same context in the text. So, the frequency of the instances of the same terms mentioned here gives just an idea of how often they have been used in the text.

4.2.1 Observations and Theme Analysis of Visual Modes and Signifiers in the Static Text

The observations and descriptions of visuals and written text, along with related themes of campus sustainability that they connote, and an overall analysis of the multi-modal discourse of each university's website have been presented as follows: The complete screenshots of the visual and verbal text have been attached in the appendix IIIA. The first visit, cutoff dates, number of visits, and any changes to the website content since the first visit, if any, have also been mentioned in this appendix.

1. NUML

The home page and the logo highlight dark and light blue colors among other colors bearing the university's name in white font. Multiple colors like brown, blue, purple, green,

orange, etc. were shown on small pictograms of different sub-links on 'Quick links'. The link 'glance at NUML' had different box-shaped sub-tabs that were mostly blue colored bands except two i.e., 'schedule for courses' in red color, while the 'idea registration at BICON' was in green color. The main headings in the 'latest events' section i.e., 'NUML Campuses in Pakistan', 'affiliated institutes', and 'guide map' were in green color.

Their sublinks, e.g., names of cities and names of affiliated institutes, had a blue color. Blue, green, and white are the main colors of the theme of 'greening'. The theme of "greening" could be expressed in a slideshow of pictures of academic blocks with nature in green.



Figure 4.1 Screen shot of the home page of National University of Modern Languages (2018).

The theme of ‘Sustainability Sciences’ is discernible in the logo of the university, in which a yellow-colored pictogram of a spoken interaction between two people symbolizes the concern of the university towards languages. The same theme is spotted in the small icons with online contact links and social media links.

The theme of ‘education for sustainability’ prevailed in the slideshow of pictures on the main page, with the headlines showing different activities of the cultural and linguistic nature at the national and international level.

The theme of ‘sustainability sciences’ was signified as the pictogram of an open book on the 'About Us' page, along with verbal written text showing the orientation of knowledge and its significance.

The frame of ‘*Sustainability Sciences*’ is traced in the verbal written text of 'Vision and Mission' page in the form of areas like ‘research and innovation’; ‘development of languages and other branches of learning’; ‘new knowledge’ (see p. i). The ‘development of languages’ is a sub-frame which distinguishes it from other universities. It was mentioned on the ‘About us’ page while describing the history of university as initially, it was a language institute for refining the language skills of army personnel and government servants facilitating people in communication through teaching different oriental and occidental languages, adaptation and assimilation of different cultures and initiation of emerging disciplines (About Us, 2018).

The theme of ‘*sustainability sciences*’ was aimed in ‘The mission’ in the verb like ‘sustain’ among the others like ‘establish’ and ‘enhance’ for making it a higher education quality institution; aiming for e-learning and information communication technologies; being compatible internationally. The theme of ‘education for sustainability’ was pointed out in the mission as verbal text in terms of qualities and values like intellectual, personal, and professional growth; fostering ‘responsible citizenship’ and establishing such administration and qualified staff, which becomes an example. (see p. i).

The verbal text of ‘objectives’ carries the three themes in different lexical frames, which makes for an all-rounded approach of the university towards campus sustainability discourse. The theme of ‘*sustainability sciences*’ was lucidly framed in terms of “knowledge transfer and knowledge creation” (see p. i) and in the ideas about new trends in e-learning

and information communication technologies and applying knowledge. Other related objectives were about language development through language learning and advanced technology across the curriculum. (see p. ii).

The theme of *'education for sustainability'* was framed in objectives in terms of training them both at national and international level for their academic and other roles as responsible citizens ; 'Social change' (see p. ii); the ethical values like 'civic awareness' and develop good personal qualities and social relationships; values like compassion, trust, creativity, integrity, critical thinking, ..(see p. ii); 'curriculum' quality improvement; 'Specialized market based courses' (see p. ii), in different areas of Social Sciences, Business and Management Studies, Engineering, Information Technology and other disciplines; "pedagogical conditions and spaces" (see p. ii); values like "social freedom"; working for "the development of Pakistani society and the global community" (see p. ii); 'Personal and professional growth' (see p. ii); working groups for "innovation and progress" (see p. ii).

The 'processes' for achieving the objectives of the university (see p. ii–iii) were multidimensional too, with the predominant frames of 'education for sustainability' and 'sustainability sciences'. The main frame of 'sustainability sciences' was present in 'supporting students for higher learning and scholarship'; the objective of "Create and sustain educational environments, activities, experiences and facilities" (see p. iii); 'Initiating research collaborations with national and international institutions'. The frame of 'education for sustainability' was found to be in the sense of faculty and staff development and giving "industrial-sector support of higher education" (see p. iii).

The three themes were embedded in the 'Why NUML' section while explaining its feature as in the frame of 'sustainability sciences' in "the only "language university" (see p. iii) and in "library & IT facilities" (see p. iii). The theme of 'greening' the campus was "ideal location" (see p. iii) and "transport and accommodation" (see p. iii). The all-caps font style is indicative of the emphasis given to these points to advertise the main focus for the sustainability of the university.

The theme of 'education for sustainability' was indicated in the will to maintain a "world-class reputation" (see p. iii) while seeking "student satisfaction" (see p. iii) and

“friendly faculty” (see p. iii). They all point towards the efforts towards the sustainability of the campus.

The themes of *‘education for sustainability’* were mapped in the verbal written text of ‘Introduction and vision’ section of ORIC which states that the lexical frames among which noticeable ones were “working on long-term, sustainable planning and progress” (see p. iii) and “the corporate sector/market/industry” (see p. iii) contacts and the theme of ‘sustainability sciences’ in terms of ‘research, innovation and commercialization’.

‘Sustainability Sciences’ was the theme projected in ‘The vision’ that aimed to have a “knowledge-based society” (see p. iv). The mission also points towards sustainability goals by highlighting the empowerment of institutions “through capacity building and sustainable solutions” (see p. iv) which signifies the ‘education for sustainability’ frame.

The mode of verbal written text aimed in the ‘Aims & Objectives’ section carried the frame of *‘education for sustainability’* through national and international funding in “all academic and sponsored research & development”; “career counseling”; “relationship between alumni and university....” (see p. iv). The frame of ‘sustainability sciences’ protruded in “practicable and replicable models for sustainable economic and social development....” (see p. iv).

An approach of *‘sustainability sciences’* was at work in another headline named as ‘Cyclic Integrated Participative Approach (CIPA)’ which is the recycling process of development through university-society interaction (see p. iv).

The theme of *‘education for sustainability’* was prevalent in the ‘Corporate Social Responsibility (CSR) Initiatives’. It was linked through verbal text as by promoting the students’ “social contributions” (see p. iv) seeking the ideological and visionary qualities like “Patriotism”; “Community Services”; Scholarships; “Sports: Physical & cognitive activities; Out-of-school Children,” (see p. v) while overlapping ‘sustainability sciences’ in the areas i.e. “Education: Promotion of knowledge,” and the ‘greening’ undertones in the idea towards “Aesthetics: Arts & Culture” (see p. v).

The theme of ‘education for sustainability’ was embedded in the national event of a conference on the topic of ‘Education and Sustainable Development’ arranged in the ‘Latest

News' section. The verbal text of the conference flyer uses several words and sentences that point towards this theme, like *'development'*, *'transforming lives'*, *'sensitizing people'*, *'key driver'*, *"think critically"* and *"to rationalize practical measures"*; *'Education is a catalyst for change and sustainable development'*; and phrases like *'quality education; policy measures; uniform quality of curriculum; educational opportunities for all; access, equity, inclusion, and gender purity; quality learning environment'*.

Although the researcher started collecting the data in the first week of January, the main change was the additional content added in the latest events section for the announcement of an upcoming national conference on assessment at the university in the coming October. This was added to the text on May 27, 2018 (see appendix IIIA p.lix).

The themes of 'Sustainability Sciences' and 'Education for Sustainability' were also emergent in another national conference event on "emerging trends and challenges in educational assessment 2018". With the pictures of the university building and the officials attending a conference, the verbal written text points towards different challenges in terms of measuring competence, work place, and educational environment, focusing on "technological advancement," "fourth industrial revolution," and "explosion of knowledge" in the assessment system of education.

Overall, the theme of 'education for sustainability' tended to dominate on the website discourse; the theme of 'sustainability sciences' after it and the theme of 'greening' were the least used.

2. IIUI

From the observations, it is evident that green is the main color used for the home page and all other links except one in blue, color which was named 'About the university' and the written text in white font, and the ORIC page, which has some headings in red. The green-colored logo of the university also reflects that it is the main color of the university's identity. Consequently, it refers to the university's strong adherence to the theme of greening in its discourse.

The slide shows the home page, 'About' link, and the ORIC page showing pictures of its buildings, architecture, spaces, the university's main entrance to the building, design, outlook, and surrounding area, especially the areas showing nature and greenery. The parking area, green

patches with beautiful flowers, green plant fences, etc. are all representative of the orientation towards ‘greening’.



Figure 4.2 Screenshot of the home page of International Islamic University (2018).

Language as a medium of communication on this website is also noticeable. The acronym and name in three languages, i.e., English, Urdu, and Arabic, language project the university’s identity and give a hint towards its orientation of merging the theme of ‘Sustainability Sciences’ in its discourse.

The frame of ‘Sustainability Sciences’ is quite evident in the details about ‘the origin and history’ of the university. The ORIC page also intends to create new knowledge. In the ‘News and Events’ section, written text highlights the themes of an international conference on innovation in teaching and learning focused on specific knowledge. The basic purpose of its foundation was a bigger vision of bringing about an Islamic renaissance. Producing knowledge, research, and scholarly practice is envisioned along the lines of Islamic ideology and the contemporary needs of Muslims at the economic, social, political, technological, and intellectual levels.

The frame of *'Sustainability Sciences'* is also prominent in 'the vision of the university' to mould thoughts and society and to promote education and research on Islamic essence. The sub-frames of 'contemporary knowledge' and 'internationalization' were also spotted in the mission section in terms of the integration of knowledge at the international level and Islamization thought.

'Sustainability Sciences' as the major aim of the university is evident in the multiple fields mentioned on the home page. The vision statement has been described in great detail along with the 'action plan' in various ways. The main steps of this plan are about 'strengthening research programs, setting up a multilingual resource center, and establishing their centres' not only in Pakistan but outside the world, which shows the university's vision of 'internationalization'. Various fields of knowledge have been highlighted, which are the focus of 'sustainability sciences', that is, the university is interested in working towards the disciplines pertaining to law, banking, financial sciences, and thought in terms of Islamic principles, along with the contemporary disciplines of information technology, media, political science, international relations, medicine, and health sciences, etc. The fields of 'Scientific and Commercial Facilities' as a separate sub-tab along with related links show that 'sustainability sciences' are given special focus with setting up 'labs' of genetic engineering and applied biotechnology, electronics, and genomics. This highlighting suggests that the university's focus on sustainability sciences is both in the natural and social sciences. (see p.vi-vii).

The ORIC involves both themes, i.e., 'sustainability sciences' in terms of direction and 'education for sustainability' in terms of its activity. ORIC functions showed future plans like "research and development, innovation,... collaborations, arranging seminars, colloquia, symposiums, conferences, workshops, etc., and/or research publication honorarium" (see p.vii-viii). These buzz words, or usual lexical items, encapsulate and frame the themes of campus sustainability discourse.

"Innovation" is one of the subthemes of "Sustainability Sciences" used in the website discourse of this university. 'News and events' used pictures of the audience, speakers, presenters, and participants of an international conference on 'innovation in teaching and learning' arranged by the university, and the verbal text with the headline gives details about

the event. The commentary, summary, and some quotes from important personalities have been mentioned. The main theme or focus of the conference was on ‘innovation’ as various topics such as innovative educational pedagogies, technological innovations, internationalization of education, innovation in curriculum and instruction, innovation in higher education, innovation in educational research, ‘Innovation’ and ‘internationalization’ of education are important themes of ‘sustainability sciences’. A comment from a famous educationist also linked the role of Islamic scholars and educationists to innovation in the field of education. The theme of ‘innovation’ is a sub-theme of one of the main themes of sustainability discourse, i.e., ‘sustainability sciences’ (see p. viii–ix).

The celebration of Teachers’ Day highlighted in the ‘news and events’ link is an act of the theme of ‘*education for sustainability*’ through signifiers of group photos and quotes of the speakers carrying the related themes like ‘empowerment of the teachers’ for ‘quality education’ and ‘sustainable societies’. Group photos of various activities and meetings on a certain topic or drive suggest the university’s discourse about its sustainability efforts (see p. ix).

The tree plantation drive, mentioned in the ‘news and events’ link, shows the university’s “efforts for Green Pakistan”. Relevant comments from the speakers carry the key words suggesting orientation to the theme of ‘Greening’, e.g., “safe environment in the future” (see p. x). ‘Plantation drives’ mentioned in both textual and visual form are specifically important in the university’s discourse on campus sustainability. These are representative of the ‘greening’ theme of sustainability.

Though all three themes of campus sustainability discourse have been highlighted, ‘*sustainability sciences*’ and ‘*greening*’ are still more prominent in website discourse.

3. COMSATS

The color used mostly on the web pages of this university was blue, as its logo had a blue color in it. Blue is also the color of the theme of ‘greening’. The dark blue/navy blue background with main tab links in white color was the most prominent color on the main page, with few in a light blue color. The ‘quick links’ section on the Islamabad campus page was blue in color. The exception is at ‘Latest News and Events’ with a white background color and red colored heading tabs or links on it. The main page of ORIC with the

university's logo having a blue-colored heading background and the black font heading of sub-tabs. Pictures and then related text were placed on a light blue and white background.

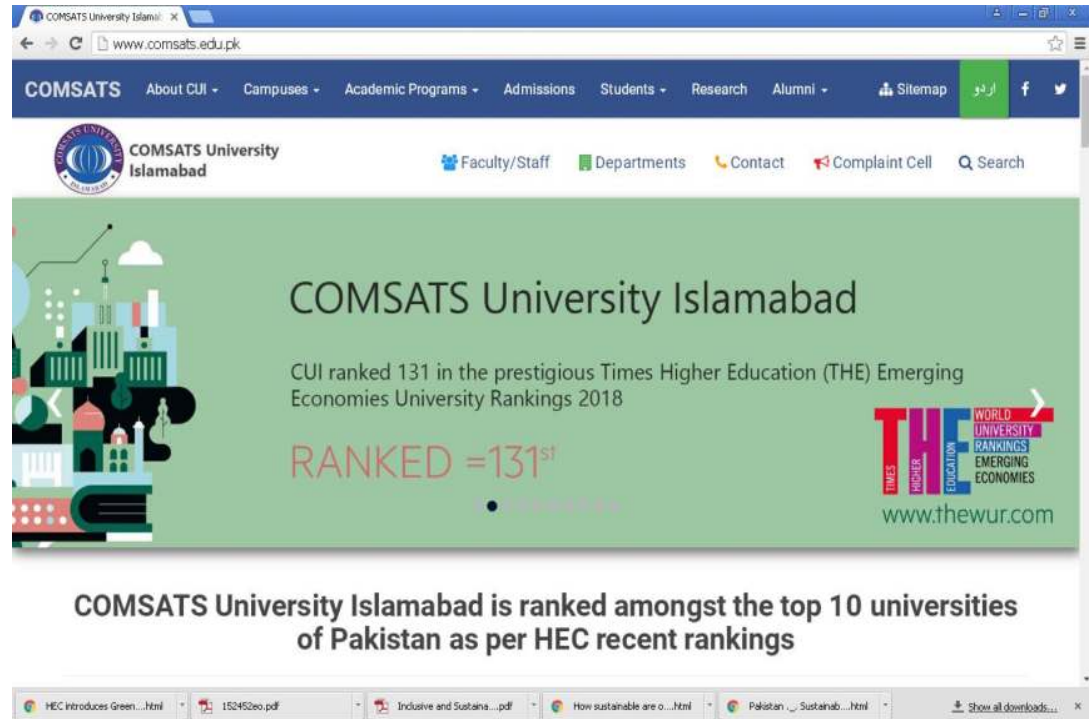


Figure 4.3 Screen shot of the home page of COMSATS (2018).

The theme of ‘education for sustainability’ is evident in the green-colored visual on the main page presenting the university’s worldwide rankings as quite prominent in terms of ‘Emerging Economies’, ‘Universities Rankings 2018’, and ‘among the top ten universities of Pakistan’ as per HEC rankings. Along with brief textual captions, there were the small pictograms of buildings, industries, graphs, pie charts, and clouds, signifying the ‘emerging economy of a country’ as architecture, business, progress, and growth.

An extraordinary way of presenting the campus activities was through a video page on the website. The video portal page with a collection of videos under the tab headings ‘tours’, ‘visits’, ‘events’, ‘students’, ‘fun’, and ‘convocation’ is something different from the websites of other universities. These headings relate to different areas of education for sustainability. Both new and old videos, with their captions, e.g., important meetings, the

installation of solar power, campus tours, and news reports on different events, give an idea of the campus sustainability discourse following different themes.

An interesting thing is the slide show of different images without any text on them. e.g., a parachute balloon, a clouded blue sky, technology equipment like solar power, lenses, trees, and an image of a human hand reaching out to these things and technologies. Exploring knowledge of all the things between the sky and the earth, technology, nature, and the environmental focus, multiple perspectives, and the power of the human mind were some of the themes observed through pictures and images. They also follow all the themes of campus sustainability discourse.

University buildings, along with green plantations, are representative of ‘greening’ with the primary purpose of promotion. Pictures of buildings with small adjacent lawns and plantation areas and a slide show of all the main buildings of the campus across Pakistan display its networking throughout the country.

A picture of a meeting with the current President of Pakistan on the main page is promotional as well as giving the impression of working on the theme of ‘education for sustainability’ at the government level.

The vision and the three-fold mission pin down the words and phrases showing research and discovery in teaching and learning (see p ix) aiming to come into the world’s top 500 universities. These sub-frames connote the main frame of ‘sustainability sciences’, while “Outreach and Public Service” (see p ix) centres around the theme of ‘education for sustainability’.

The theme of ‘education for sustainability’ surrounds the event in the ‘Latest News and Events’ section of a conference on architectural education, with the theme of “analyzing current trends and shaping the future” (see p. xi–xii). In the verbal text, sustainable development terms such as sustainable, environments, values, social, aesthetic, etc. are found. This textual discourse includes campus sustainability themes like greening and sustainability sciences. For example, it refers to the aim of architecture as “to create sustainable human environments” (see p. xi). The theme of ‘greening’ in sustainability also advocates that focus on architecture that is a part of sustainable development, but it is also expressing human values (see p. xii), which places it in the theme of ‘education for

sustainability'. The term 'Design' in architecture integrates various dimensions of social, environmental, cultural political and aesthetic nature (see p. xi). These themes are frequently discussed in sustainable development discourse.

Architecture is a discipline that focuses on the environment, ecology, and physical facilities needed to live and survive, which makes it an important factor in the discourse on campus sustainability. The description of this department links to the theme of 'sustainability sciences' by using words that are its subthemes, like 'critical thinking' and 'theoretical and historical understanding' (see p. xii). The themes of 'sustainability sciences' and 'education for sustainability' can be deduced from their details. The discourse on teachers' training, documenting methods or practices, and revision of our curricula are all efforts to follow the theme of 'education for sustainability'.

Another event was 'The South Asian International Conference' in 2018 introduced in the written text uses many words related to themes of 'sustainability sciences' and 'education for sustainability' such as 'machine learning'; 'innovation'; 'digital transformation of the organizations' (see p xii) etc. Another event was 'The South Asian International Conference' in 2018. The written text uses many words related to themes of 'sustainability sciences' and 'education for sustainability' such as 'machine learning', 'innovation', 'digital transformation of the organizations' (see p. xii), etc.

Another mention of ORIC activities going for 'education for sustainability' is through a group photo of the faculty captioned "Innovation and Future Studies for Sustainable Development at the COMSTECH Headquarters". The written text in bulleted form presents the vocabulary used in sustainability discourse about innovation, quality research, knowledge economy, and policy making' (see p. XVI). They are usually used in 'sustainability sciences' and 'education for sustainability'. A visual, i.e., a dart board with arrows on different targets on the ORIC page named 'Mission', is suggestive of an orientation towards 'education for sustainability'.

The vision of the ORIC of this university favours "Sustainability Sciences" the most, with sub-themes like "research excellence," its market utility, and using research to bring prosperity (see p. xvi). 'The Terms of Reference for ORIC' reiterates the same themes in the text as research, entrepreneurship, innovation, and technology (see p. xvi).

Green, the color of greening, was used in the separate link of the ‘Go Green Initiatives Club’ of the university. The tagline of the club was in white font, with a visual of green leaves surrounding the slogan.

A whole web page, dedicated to the campaigns launched by the university, focused on environmental concerns. Lexical items like ‘Go Green, Save Energy’, in Urdu language i.e., ‘Ghar Ghar ki baat!!’ (‘talk of the town’) communicate the agenda of all three themes of sustainability.



Figure 4.4 Screenshot of the home page of Green Initiatives Club (2018).

Many visuals were used as a signifier of this theme. A green-colored pictogram presenting clouds, trees, high-rise buildings, mountains, sky, sun, car, solar power, and wheels. The slide show presents another image of the green grass, surrounded by trees and a few houses in the background, and two hands planting on this grassy land. The message of this campaign sought partners with the trait of being ‘mission-driven’ and ideas like ‘making the world a better place’ that are interconnected to the theme of ‘education for sustainability’.

The campaign points to the ‘greening’ efforts of the university. The ‘About Us’ page of the ‘Go Green’ CIIT campaign showed concerns like ‘energy conservation’, ‘recycling of

natural resources’, providing “self-sustenance” (see p. xiii), the idea of making educational institutions designed on the principles of green and sustainable architecture (see p. xiii), and “collaboration with the World Society of Sustainable Energy Technologies (WSSET)” (see p. xiii).

Awareness activities like series of lectures and video presentations by the experts of the concerned fields, poster competition, exhibitions and cleanup of various areas...(see p. xiii).

The initiatives have been explained quite clearly and comprehensively through different headings such as “REDUCE, REUSE, AND RECYCLE” (see p. xiii), ‘Garbage Collection & Removal’ (see p. xv), and ‘Problems Relating to Climate Change’ (see p. xv).

Another main heading was 'Sustainability'; different definitions of the concept of 'sustainability' and different ways of maintaining a sustainable environment were shared in the written text.

The themes of 'sustainability sciences' and 'greening' were manifested in the section or link of 'weather forecast of Islamabad for the next 24 hours' on the homepage presented by its department of meteorology, and this is one of its kind of information as compared to the website discourse of other universities. Along with the verbal text report, the visuals were used, like a background image of a blue sky filled with white clouds, which included the university's logo, the name of the department, and a small picture containing images of different types of weather, e.g., sunny, cloudy, or rainy images.

Overall, the university is more active in pursuing the themes of sustainability sciences and greening, though it is not lagging behind in following 'education for sustainability'. The importance given to the theme of 'greening' is far greater than that of any other university in Pakistan.

4. NUST

The official color of the university is blue, and it was used as the main color on its website e.g., the main home page and visuals having light and dark blue as the background color and white font. 'NUST identity' on the 'About Us' page illustrates the significance of this color through both visual and verbal text. The

logo of the university is in blue color with the name of the university in white font in the outer circle of this logo. The verbal text tells the university's purpose and interpretation by saying that this color is symbolic of the future and the qualities of liveliness, wisdom, professionalism, dignity, grace, and commitment (see p. xvii). Therefore, the color blue is suggestive of using 'greening' to represent the university, while the qualities symbolised by this color reflect the elements of 'education for sustainability'.

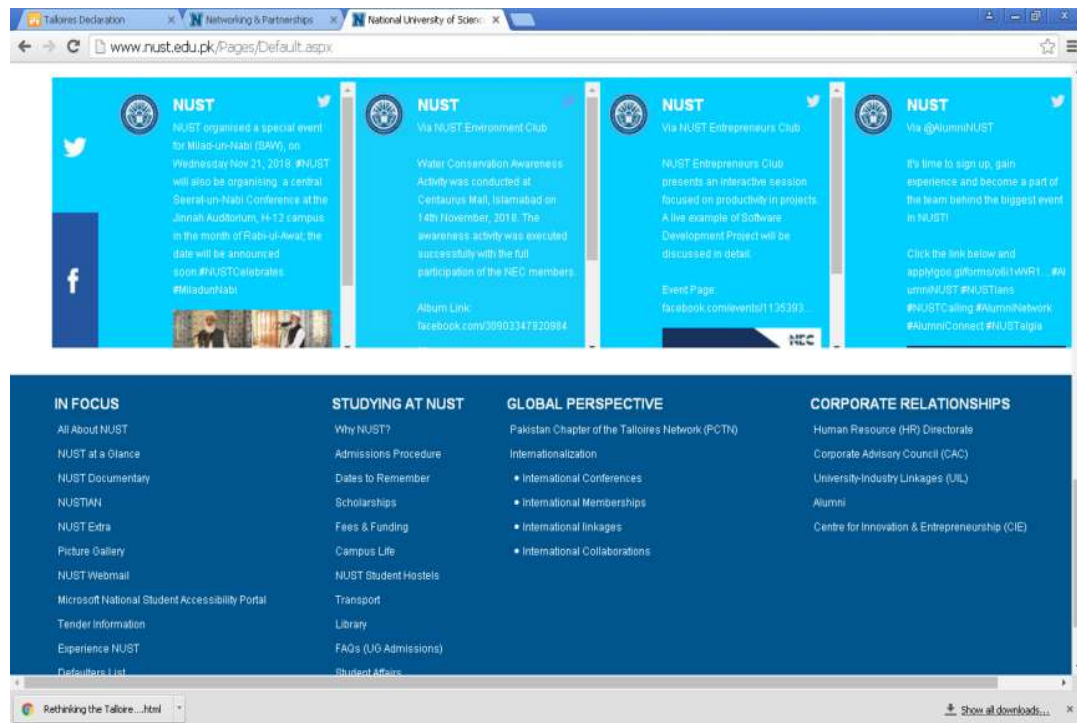


Figure 4.5 Screen shot of the home page of National University of Science and Technology (2018).

Different background colors have been used to differentiate between different departments of its Research and Innovation Centre like dark blue, maroon, light blue, and green, while the written text is in white font and the verbal text has a green background color.

The establishment of the NUST RIC eco-system is more comprehensive and organized than other universities, i.e., fully supporting the theme of 'Sustainability Sciences'. The Center for Innovation and Entrepreneurship (CIE), its main departments involved, their sub-departments, and the corresponding main responsibilities were highlighted in the form of a flow chart. A flow chart along with verbal text was also used as

a signifier on the TTO (Technology Transfer Office) page to show how the functions of the university are being organized.

‘Sustainability Sciences’ is prevalent in the presentation of social media icons on the main page links of ‘Facebook’ and ‘Twitter’ given as their icons to connect to news about NUST with highlights of some featured news. A CD link for ‘NUST at a Glance’ and the link to download was also part of this endeavor.

Apart from usual headings, e.g., ‘in focus’, ‘studying at NUST’, etc., the heading of ‘globalization’ is noticeable since this buzzword relates to the theme of ‘sustainability sciences’.

As a prominent signifier, pictograms, and images have been given more space for mentioning important information e.g., the clip art of party popper, water drop, hands etc. in the news and upcoming events section. They, complemented by the informative verbal text, illustrate the different themes of campus sustainability followed by the university. The theme of ‘sustainability sciences’ pervades in the ‘Research Centre for Modelling and Simulation’ while the event of the water conservation walk suggests the efforts towards ‘greening’.

Pictograms suggest the theme of ‘education for sustainability’ for the celebration of ‘the global IAESTE (The International Association for the Exchange of Students for Technical Experience); of NUST as the top university in Pakistan and a badge being ranked at #87 in Asian universities.

The theme of ‘sustainability sciences’ was practised in an inter-university mock trading competition event reminder with a pictogram of a money-saving pot.

The logo of the university also uses pictograms as a mode to signify the university’s approach towards its sustainability, and this is illustrated in the verbal text of ‘About Us’ / NUST identity link that the university had a preconceived idea while designing this logo, i.e., pictograms of the sun with its rays and under it, a book and moon with a star, and birds. The book of knowledge was stated to symbolise qualities of light, wisdom, and various branches of knowledge. The qualities and values of change, awareness, inspiration, hope, progress, spirituality, and enlightenment were connoted by the signifier of ‘rising sun’. The four birds flying from the nests of light and spreading it in the world were stated in the verbal

text to be symbolizing the quest for spiritual gratification through knowledge and wisdom. The theme of ‘education for sustainability’ is fully operational here.

The slide show presents different pictures of focus, e.g., of library representing focus on ‘sustainability sciences’ and ‘education for sustainability’.

‘Greening’ was depicted through the pictures on the slide show, such as the building of the central library, the clouds in the sky with sun rays among the clouds and trees, a picture of the dam and the clear water running down for contribution to the Diamer Basha and Mohmand Dams Fund, the background picture of dry, cracked earth, two hands trying to save a water drop, and a little child or girl carrying plastic water bottles in her hands with slogans about the water conservation awareness campaign.

The sub-theme of ‘water conservation’ was a more prominent theme of ‘greening’ conveyed through text and visuals. The water awareness walk organized by the university was covered in the news and events section, carrying pictures of the walk, group photos, banners, slogans, and pictograms. The whole activity of the walk is suggestive of active implementation of the theme of ‘education for sustainability’.

‘Greening’ was observed to be the university’s preference as specific clubs and departments have been established to implement such measures i.e. NUST Environmental Club with its green-leafed logo and ‘School of Civil and Environmental Engineering’.

The pictures on the Urdu portal of the aerial view of the university from above, clean roads within, vast parking area, and green areas are suggestive of ‘greening’.

Greening had also been pointed out through a picture of the building of TIC on the page of Technology Incubation Centre (TIC) that comes alternatively in this slide show with a cloud-filled blue sky and the green plants and area surrounding the building and verbal text with a blue background color and white font telling about the location as “in the serene, lush environment of NUST campus”.

‘Sustainability Sciences’ was practised as a separate portal of Urdu language is provided on its website, and all the contents that are available in English are also available in Urdu.

The vision and mission linked to mainly 'sustainability sciences' illustrate favouring 'contemporary' ways or 'modernism' through a picture and text. 'Knowledge innovation', known to be a subtheme of 'sustainability sciences', was verbally mentioned in NUST's vision.

The mission goals in the text suggest different frames of sustainability themes: "Creativity, Innovation and Entrepreneurship" (see p. xvii) conjoins the frame of 'sustainability sciences' while 'Social, Economic and Environmental challenges' pertain to both frames of 'greening' and 'sustainability sciences'. Similarly, certain principles of fairness, merit, and transparent means; developing students' "leadership and social skills, .." (see p. xvii); international exposure (see p. xvii); alumni interaction at local and international levels (see p. xvii) are instruments of 'education for sustainable development'. Maintaining a conducive environment for students and staff (see p. xvii) joins the frame of 'greening'.

The 'Rector's Message' on the 'About Us' page is of special significance as it points towards different themes of sustainability that the university is heading towards in past, present, and future times. 'Adapting to the contemporary needs'; commitment to scientific leadership; need-based innovations and the aim of being a research-led, socially engaged university are the lexical frames that fall under the heading of 'sustainability sciences'. Aiming to transform the country into a knowledge-driven economy and providing a knowledge ecosystem including entrepreneurship and high-impact research are the major goals in the theme of 'Sustainability Sciences' which the university is highly motivated to adopt. Another distinguishing feature linked to 'Sustainability Sciences' that is mentioned in the message was the establishment of the 'Science and Technology Park' in Pakistan for the first time and helping to make 'export-oriented economy'. Though the university's commitment to contribute to the national efforts to achieve 'Sustainable Development Goals' and 'Vision 2025 of the Government' refers to the dominance of the theme of 'education for sustainability' overall, it encapsulates all three themes of campus sustainability discourse. 'Greening' was referred to in the message by the aim mentioned as to positive changes in the 'environment' of the university i.e. both the academic as well as physical environment.

The effort for internationalization were signified in the visual and verbal text of networking and partnership page with further two more links i.e. "International office

(NIO)' and 'Industry Academia Linkages (IAL)' (xviii). Its international memberships were noteworthy too such as "World Techno Polis Association", "Asia Pacific Quality Network", "Talloires Networks", "Infodev- world Bank" (see p xix) and many other networks.

The verbal text utilizes the lexical sub themes like internationalization and globalization as one of its strategies through cost effectiveness, international linkages, technological advancements, and "active research collaborations" (see p xix-xx), which are pertinent to the theme of '*sustainability sciences*'.

"Civic sense" and "social responsibility" are important pillars of the theme of *education for sustainability*. Acting as a member of the 'PAKISTAN CHAPTER OF TALLOIRES NETWORK (PCTN)' is another distinguishing feature of this university, and awareness about this network that was shared as a separate page on the website discourse. With the help of images, pictograms, logos (a white globe with blue and red belts wrapped around) and verbal text, the themes have been shared with the audience, and the main theme is '*education for sustainability*'.

Along with ORIC, many centres and 'institutions' linked to or affiliated with the university work in conjunction with each other and have their own specialised responsibilities, which makes it different from other universities that have only ORIC as their centre of innovation and research. For example, the Professional Development Center, the U.S.-Pakistan Centre for Advanced Studies in Energy, Technology and Innovation Support Centers, the Center for International Peace and Stability, the Institute of Policy Studies, etc., and so on These centres have been established to cater for all three themes of campus sustainability discourse, i.e., *greening, sustainability sciences, and education for sustainability*.

The picture illustration, like thumbnails of so many buildings and their webpages, is primarily promotional in nature, but it is also a revelation of the university's active participation in campus sustainability discourse. The picture of a modern office set up along with the verbal text where young people seem to be busy and working hard was on the page Technology Incubation Centre (TIC) which reflects the university's preference for '*sustainability*' in its structure.

The verbal text on the ORIC page shows the usual subthemes like the other universities mention on their websites, e.g., focus on ‘technology, innovation, and entrepreneurship’, but a distinguishing feature is that it uses the word ‘ecosystem’ twice as a metaphor for this department. In its mission, there is stress on developing a research culture not only for the university’s needs but for ‘the national needs’. This is rarely mentioned in other universities’ ORIC missions.

Less verbal text and more pictures Illustration was used as a signifier to provide information about the activities and events on the ‘campus life’ page, e.g., pictures of girls, green patches of the university. Green and yellow colors, modern female students studying, green plants, and a long list of ‘clubs and societies’ were major ways to express some of the influence of the theme of ‘education for sustainability’.

Overall, the theme of ‘Sustainability Sciences’ superseded, whereas the theme of greening followed after it, and the theme of ‘education for sustainability’ had the least occurrence as compared to the formerly mentioned themes.

5. Air University



Figure 4.6 Screen shot of the home page of Air University (2018).

Blue and white were the main colors used on the web pages of this university. Navy blue color was the background color on the home page, with the written text in white-coloured font. Blue is also included in the colors of ‘greening’.

The theme of 'education for sustainability' was signified through the logo consisting of the acronym of university with a bow designed as an eagle, signifying qualities like courage, power, strength, leadership, and resilience. A bow itself symbolizes an ambition, vision, or target.

The 'greening' orientation was reflected through the exterior view of the university's main building covered with green plants on the home page and on the link of 'About AU'.

Pictures such as convocation shield presentations, sports days, seminars, scientific model exhibitions, etc. were signifiers of the theme of 'education for sustainability'.

The theme of 'greening' prevails in the contribution to improve the environment, such as donations for building dams in the national interest and awareness of water conservation. Pictures on the slide show of a dam, blue water, and green patches around; a picture of a hand trying to hold water drops with captions about saving water for survival. Social media links promote the theme of "Sustainability Sciences."

A rephrased change in the mission statement was noted in the vision section of the website of Air University on May 7, 2018. (see appendix IIIA, p. 139).

The frame of 'sustainability sciences' was embedded in the verbal written text on 'vision and mission' as emphasis was put on "professional knowledge" and 'excelling in teaching, learning, research', 'innovation' (see p. xxi). The qualities to inculcate were prone to the theme of 'education for sustainability' like 'public service', "integrity of character," 'creating a conducive environment', and 'the development of a prosperous, peaceful, and enlightened society' (see p. xxi).

The theme of 'education for sustainability' was conferred on the page of 'News and Events' in the form of a picture gallery without verbal written text. Some events have been highlighted through verbal written text as well, e.g., the visit of the German Ambassador in his compliments about "the state-of-the-art building"; a "modern," "friendly," and "green" (see p. xxi) university, which gives the idea of the university following the theme of 'greening'.

The frame of ‘sustainability sciences’ and ‘education for sustainability’ go hand in hand with the areas of enhancing cooperation in the areas of youth development and modern economy, with a focus on energy and climate change (see p. xxii).

The theme of ‘education for sustainability’ could be deduced from the verbal mention of another event, i.e., an international conference on campus life-related challenges and the perceptions and realities governing the principle of ‘radicalization’ (see p. xxii), as it relates to the issues of campus life.

Overall, the theme of ‘education for sustainability’ was overpowering the visuals and verbal text, along with other themes in a bit lesser degree, on the website discourse of this university.

6. Karakoram International University



Figure 4.7 Screen shot of the home page of Karakoram International University (2018).

The theme of ‘greening’ was manifested through the colors visible on the main page and in the logo of the university, which were blue and yellow (mustard) color. Light green, blue, yellow, and orange color on the slides were also noticed.

‘Knowledge’ is the theme of ‘sustainability sciences’ signified through the pictogram of a flaming torch in the triangular-shaped logo of the university with the name of the university both in Urdu and English, presenting an approach towards ‘internationalization’ as well as keeping up with ‘localization’ or ‘nationalization’. ‘Sustainability Sciences’ is more vividly visible in the Qur’anic verse in Arabic in the logo, which is itself a signifier encouraging to understand the signs of the universe and gain from the more knowledgeable, as only believers get such wisdom.

Technology and communication channels are supported by the theme of ‘sustainability sciences’ through signifiers like the icons of social media apps and an option of language (English or Urdu) for convenient communication and ‘internationalization’.

The theme of ‘greening’ was signified through the slide show of the main page through images and slogans. With the background light green in color and the image of green flowers at the centre and white flowers on the green grass land at the bottom of the slide and the logos of organizations collaborating for the greening drive with the university, the verbal textual slogans and quotes create awareness for environmental protection.

The other image on the slide shows the theme of ‘greening’ with another message, while the awareness activity and collaboration of different organizations especially the celebration of international days, i.e., ‘the world food day’, follow the theme of ‘education for sustainability’ and the SDGs. The signifiers were: the painted image of children on the banner with vibrant colors like blue, orange, and yellow, which were painted with the slogans giving the message of ending poverty by providing food, aiming to end hunger by 2030, and the importance of actions in making our future. The image of children signifies our future generations, which is the concern of all the themes of campus sustainability.

The theme of ‘education for sustainability’ could be traced to the main page, where the useful links were all about different campus facilities. A different one from the usual facilities is ‘the early childhood programme centre’, while the theme of ‘sustainability sciences’ is embedded in the knowledge field of ‘early childhood education’.

The signifiers put in parallel to the written verbal text on the ‘vision and mission’ page were small photos of campus surrounded by green areas, the model of a tamtam (a

means of transportation like a tonga), the admin block, and the lab concerned with bio-safety, signifying concern over the environment, scientific solutions, communication channels, and administrative matters, thus following all three themes of campus sustainability discourse.

The theme of ‘education for sustainability’ was implanted in the verbal written text of the main vision, which was revealed as “commitment to social development” (see p. xxii) and creating a society having peace and pluralism in the mountainous areas (see p. xxii). These signifiers are a distinguishing feature not found on the other universities’ websites.

‘Sustainability Sciences’ was aimed at ‘The mission’ propagating ‘development’ and ‘knowledge’ in more depth “To promote human development....” (see p. xxii) and contribute to the “...sustainable, humanitarian, and economic development of the environment” (see p. xxii).

The theme of ‘education for sustainability’ was implicit in the several ‘values’ on the mission link, e.g., about management and certain ethical considerations; avoiding discrimination on any basis like religion, race, or culture; creating an atmosphere of freedom of speech, critical thinking, and creativity (see p. xxii).

The theme of ‘Education for Sustainability’ in ‘Strategy’ suggests techniques to attain these values in the areas of recruitment of highly qualified faculty, merit-based admission of students, student-centred learning, and faculty and staff development (see p. xxiii).

The theme of ‘Sustainability Sciences’ was lucidly placed in the verbal text in terms of relevant knowledge content w.r.t. the local context and comparative advantages; networking with global knowledge networks; multidisciplinary educational programs;... “decentralization”; resource development (see p. xxiii).

The theme of ‘Greening’ is in the verbal text of strategy plans for creating an attractive campus environment, which is culturally symbolic (architecture) (see p. xxiii).

A separate tab for ‘integrated mountain area research centre’ on the main page leads to a detailed overview of the center, and the page for this centre has further sub-tabs. The theme of ‘greening’ has been explicitly followed in the overview by describing its glaciated landscape, “a museum of nature,” and its mountainous location(see p. xxiii) and for

international collaborations for preserving the natural environment and promoting knowledge about it was also disclosed as in the financial and technical support for Karakoram National Park.

The theme of ‘sustainability sciences’ has been manifested in the ‘Objectives’ and mandate of a research center on the integrated mountain areas mainly in terms of the nature of knowledge in that field. They include verbal frames of ‘development of a human resource for sustainable mountain development’; promoting research in that field; designing programs involving community outreach, training, and policy-making (see p. xxiv).

‘Greening’ is evident in the thematic areas which are, in fact, inter-disciplines of all areas related to sustainability especially ‘environmental sustainability’ e.g., “geo hazards, soil sciences, sustainable mineral resource development; ...; glaciology and mountain hydrology; sustainable mountain agriculture; food security; disaster studies; atmospheric sciences and climate change; biodiversity and conservation; and languages” (see p. xxiv-xxv).

The themes of ‘greening’ and ‘sustainability sciences’ in the several international and national ‘collaborations’ of IMARC e.g. with “Academy of Sciences, ... Forests and Wildlife Departments, Agriculture, Livestock & Fisheries Department, Labour, Industries and Minerals, Ministry of Climate Change, WWF- Pakistan), etc.” (see p. xxiv -xxv).

The theme of ‘education for sustainability’ was reflected on the center screen through the picture of ‘career development activities’ arranged by the university graduates organizing job fair; in the verbal text of their ‘Business Incubation Center’ as creating an environment for entrepreneurship in the university (see p. xxviii) through seminars, workshops, and training programs.

The theme of ‘sustainability sciences’ in the verbal text of the vision and mission of KUBIC centre as ‘entrepreneurship in mountain ecology’ in order to improve the socio-economic conditions of the mountain communities (see p. xxviii) enforcing ‘creativity and innovation’ through these skills (see p. xxviii).

The theme of ‘education for sustainability’ of ‘Activity Highlights’ of the centre of KUBIC invokes such as a series of seminars and workshops in collaboration with leading organizations (see p. xxviii) and business plan competitions (see p. xxix).

The theme of ‘greening’ and ‘sustainability sciences’ could be spotted in the verbal written text with visuals of small picture of the flags of two countries on the page of ‘Center for Research on CPEC (KIU-GB)’ describing the implications of CPEC and policy making (see p. xxvi). Several thematic areas, e.g., “Natural Hazards; Bio-Diversity and Conservation; GIS and Remote Sensing; Social Development; Simulation, and Modeling; ICT; Silk Route: Culture, Heritage” (see p. xxvi) etc. were highlighted.

The theme of ‘greening’ was evident in a separate page of ‘green campus’ led by a link on the main page with signifiers of pictures, green tabs of resources, screen shots of newspaper cuttings, and verbal written text about the activities and initiatives. Picture of the officials initiating the plantation drive; the two headings, i.e., ‘UI GreenMetric Guideline 2018’ and ‘GreenMetric Questionnaire’ in green tabs, give guidelines and provide the questionnaire, respectively, for measuring the ‘greening’ of universities. The visual and verbal content of some newspaper cuttings in Urdu and English also proves effective steps, e.g., about the activities of the cleanliness drive, the Green Pakistan drive, ‘World Food Day’, ‘Plantation Day’, and the news headline about the inclusion of this university in the 1000 universities in the world adopting green metrics initiatives.

The proof of the university following all the themes of sustainability was presented by presenting the related documents, like the letter from the University of Indonesia to the VC of KIU inviting to the “2018 UI Green Metric World University Rankings on Sustainability” and the certificate awarded in 2018 to KIU as “the 669th World’s Most Sustainable University.”

The ‘News and Events’ link reflects all the themes of campus sustainability, especially about signing different memoranda of understanding for sustainability issues like energy conservation and research and development issues between the university and other organizations, along with pictures and verbal text giving details.

Greening superseded sustainability sciences in terms of frequency, and finally, the theme of education for sustainability was prevalent in the data on the website.

7. Iqra University

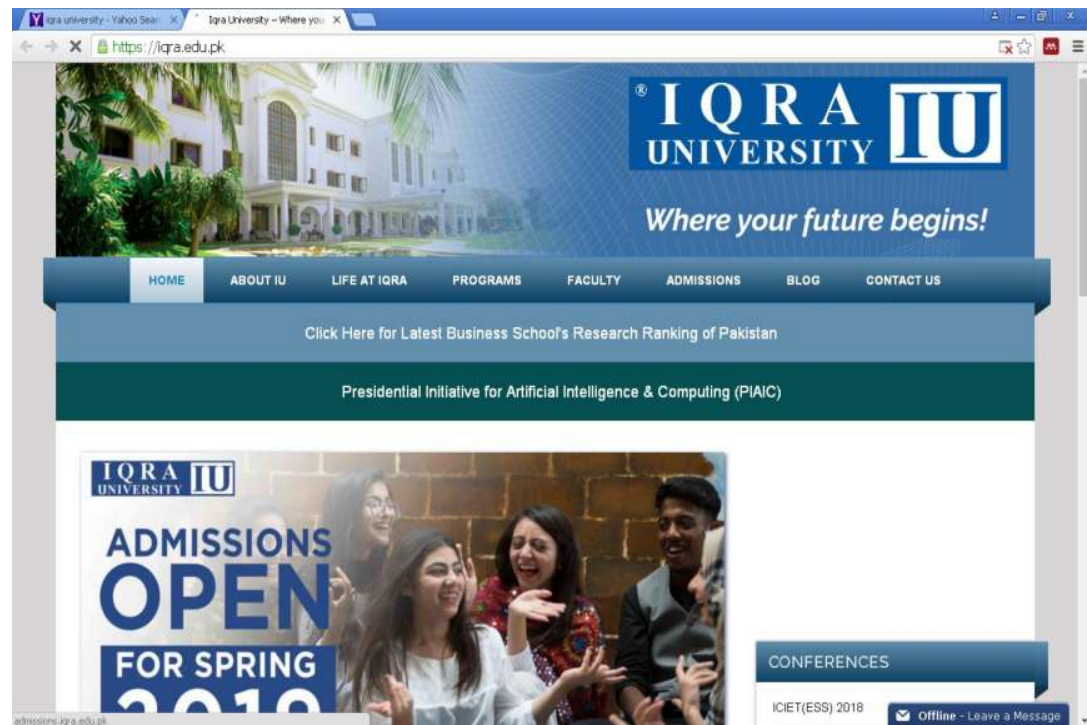


Figure 4.8 Screen shot of the home page of IQRA University (2018).

The main color preferred for the website was blue, i.e., the logo and name in a white and blue combination; the headings and sub-headings, on the page of ‘Mission & Vision’, were in a sky blue color while text in black font and bullets were in a dark blue color. Blue color is included in the colors of ‘greening’ campaign.

Visuals of the building cover the most space on the main page. Also, a picture of a white-colored building with a green plantation in front on the slide show orients towards ‘greening’.

A slideshow in which images about the activities at the university were scrolled. Though this is primarily promotional in nature, the theme of ‘education for sustainability’ could be traced in action. Pictures of happy young students, the young man dressed in a black modern suit, and a caption of a promising future were all related instances.

Text-only (verbal) slides were part of the main page too. ‘Rankings’ were the main subject communicated in them. Some of the slides were a combination of both e.g., a white background merging a blurry image of campus building shows the ranking of the Karachi

campus of university ranked as #1 among the private universities of Pakistan along with a table displaying the top five rankings; the verbal text labelling as number one university as declared by the Sind HEC; verbal text and building pictures on Islamabad campus link revealing it as ‘the best business school in Pakistan’; slide with verbal text presenting as ‘No. 6 among all private and public sector universities’; verbal information of written text illustrated through a digitised image of hand shake of two different coloured hands about collaborations with foreign well recognised business schools for ‘Digital Learning Initiative’. ‘Collaboration’ and ‘rankings’ are subthemes of ‘education for sustainability’, but their orientation towards innovation and technology also leads to the theme of ‘sustainability sciences’.

The verbal text of the page having ‘Founder Chancellor’s Message’ along with his picture signifies the themes of campus sustainability in different ways. The message starts with relating the very name of the university which means ‘read’ leading to ‘knowledge’ seeking which is the main aim of the theme of ‘sustainability sciences’ and focus is on skills like ‘critical thinking’ and ‘technical skills’ along with highlighting the achievements of the university so far. The theme of ‘education for sustainability’ was at work in the words and phrases like ‘public duty’, ‘proper environment’, ‘education as the only solution’ etc.

The verbal text on the ‘Mission & Vision’ page also exuberates the theme of ‘education for sustainability’ by outlining the ‘Core values’ such as “Respect, Merit, ..., Equality,.. Dedication” (see p. ii).

‘Education for sustainability’ was submerged in the ‘Vision Statement’ supporting activities regarding ‘Leadership’ and ‘Training’ while the theme of ‘sustainability sciences’ was at work with terms such as entrepreneurship, ..., Islamic values, industry linkages (see p. ii). The verbal text of the ‘Mission Statement of the Business School’ mixes ‘sustainability sciences’ with the theme of ‘education for sustainability’ in “ethical values in a technologically equipped environment” (see p. ii).

The theme of ‘education for sustainability’ could be observed in ‘Aims & Objectives’ aiming towards “educational and training opportunities that are compatible to changing needs of the students” (see p. iv).

The theme of ‘greening’ was reflected in ‘Aims & Objectives’ as verbal text stating “the environment and infrastructure”, which would be helpful in grooming the youth for creativity, professionalism and service.

‘Aims & Objectives’ cover the theme of ‘sustainability sciences’ as seeking ‘knowledge and skills’; critical thinking, tolerance and keeping intact the values of ‘education for sustainability’ i.e. ethnic and cultural tolerance, ethical human decision making; workplace adaptability; social responsibility; hard work and dedication (see p. iv).

‘Sustainability Sciences’ was the main theme in the backdrop of ‘goals’ under the heading of ‘Education and Research’ such as “inquiry and criticism”; “scientific knowledge for developing national resources”; “new technologies and methodologies”; “Develop strong interpersonal and communication skills” etc. (see p. iv).

The theme of ‘education for sustainability’ was embedded in the heading ‘Why Choose IU?’ on the webpage by presenting the prominent position of the university with respect to rankings in different fields.

The written text of the home page of ‘IU Islamabad Campus’ was informative, sharing the demographics and statistics but also weaving the themes of ‘sustainability sciences’ by stating about “state of the art academic/research facilities” and ‘competitive global curricula’ (see p. iii) and the theme of greening by stating about the setting and environment of the university, i.e. “purpose-built campus is spread over a lush green area” (see p. iii).

The theme of ‘*sustainability sciences*’ was embedded in ‘ORIC Introduction’ when stated the verbal text as “the set of strategic, operational and tactical design” (see p. v); “activities that strengthen and sustain the local and national economy” (see p. v) and ‘ORIC Objectives’ reviews the theme of ‘*education for sustainability*’ in terms of creating awareness “regarding product development, industrial design or sourcing” and “To attract potential investors” while following the theme of ‘*sustainability sciences*’ for ‘internationalization’ (see p. v).

‘*Education for sustainability*’ further prevailed in ‘Role and Responsibilities of ORIC’ focusing on academic research; “Building and sustaining relationships between

internal and external stakeholders” and “Securing IP rights (Patents, copyrights, designs and trademarks)” (see p. v-vi).

Overall, the theme of Education for sustainability was the most frequent and the themes of greening and Sustainability sciences were nearly equal in occurrence through various modes came after it.

8. Qurtaba university



Figure 4.9 Screen shot of the home page of Qurtaba (2018).

The blue and white color theme was used as background color in this visual. There was a slide-show of different pictures related to different activities of the university. Orange and mustard yellow color was prominent in some pictures. ‘Research at Qurtaba’ showed the images of different journals and articles in purple, blue and brown colour with mustard background. Vision of ORIC in white pages with black font and orange color font in the headings was also observed.

The theme of ‘sustainability sciences’ was curated through the image of research articles and journals suggesting the importance of these things in the university’s agenda.

Picture of official contract at international level for cooperation illustrating the university's fruitful efforts for internationalization as the theme of 'Sustainability Sciences' while pictures of labs, scientific equipment, and experiments also fall under this category to gain knowledge.

Photos of the scholars and students wearing their black convocation gowns and convocation caps; group photos of the 'Institutional Performance Evaluation' team are an indication of activities included under the theme of 'education for sustainability'.

Color preferences of the 'greening' theme were also reflected while presenting the outstanding progress of the university in the field of sciences and technology. The colors like green, orange, red and yellow were used in the graph bars to highlight the differences in the rankings. The theme of 'sustainability sciences' goes hand in hand with the theme of 'education for sustainability'.

Certain disciplines were also highlighted on the main page with pictures and captions related to their nature of work, e.g., the caption "civil engineering" showing a young civil engineer working on site; the caption of 'electrical engineering' showing the drawings, flow charts, and drawing tools. This endorses 'sustainability sciences' as a foremost preference.

The picture of the main brown colored building surrounded by plants and a garden reveals 'greening' while the caption on it of being included in 'W3 Category university' refers to the theme of 'education for sustainability'.

In this image, the officials of the university could be seen awarding trophies and medals to the students. The caption tells that it is about "Sports at Qurtaba". Picture on the main page showing the encouragement of students by giving them trophies for sports and extracurricular activities of the students favours the theme of 'education for sustainability'.

After the slide-show, multiple links with pictures, e.g., of books, library, student studying, quality captions and university building display overall campus sustainability discourse.

News of seminars and conferences is indicative of 'education for sustainability'. Giving social networking contacts on a website relates to the theme of 'sustainability

sciences’. The picture and event of seminar on ‘Climate change’ favours the theme of ‘greening’.

A picture of the faculty members attending the 3rd Asia International Conference in a Malaysian university is proof of indulging in the theme of ‘education for sustainability’. The topic of the conference is related to almost all three themes of campus sustainability, i.e., “Advances in Managing Operations and sustainability; Emerging issues in Economics and Finance; Future of Marketing and Management; Global Development in Humanities, Education and Civilization”.

The slogan of the university, i.e., “Let There Be Light and Lifelong Learning” (p. iv), is presented on the vision and mission page. The ideas of ‘enlightenment’ go for ‘sustainability sciences’ and those of ‘life-long learning’ go for the theme of ‘education for sustainability’.

The theme of ‘sustainability sciences’ was invoked in ‘The Vision’ through lexical themes of ‘a knowledge-based society’ with the application of values of tolerance, progressive attitude, and order (socio-economic, political, and moral) developed through applying ‘education for sustainability’.

‘Education for sustainability’ is the theme followed for the verbal text of vision as “truth” is the highest value which has to be inculcated through knowledge for “service to mankind” and ultimately “submission to Allah Almighty” (p. vi) was an extraordinary lexical theme found in the verbal text.

‘Objectives’ promote the theme of ‘*sustainability sciences*’ prominently by differentiating the kinds of knowledge as a form of input and output i.e. ‘Acquisitional’ (through natural and social Sciences) and ‘Revelational’ (‘wisdom’) (p. vi) in which the later should be given preference with orientation of ‘*education for sustainability*’ in areas like public service ; classroom practice ; leadership; creative and constructive thinking ; personal care and academic support ; respecting other cultures, races, faiths and classes’.

The verbal text of ORIC was primarily owing to the theme of ‘*education for sustainability*’ i.e. arranging conferences, seminars and training programs at national and international level with very clearly defined focus on ‘relevance of the researches relevant

to Pakistan's socio-economic needs' and 'private business in informal sector' planned to get through marketing academic excellence along with two types of interaction environment i.e. "Academic – Practitioner" and "Student – Practitioner" which steers it to 'sustainability sciences'.

An event of a seminar favoring 'sustainability sciences' and 'greening' was worth noticing as its focus was on "Climate Change and Sustainable Development using Green Infrastructure for Storm water" (Qurtuba, 2018).

Overall, along with the other two themes, the university's website discourse highly favors the theme of sustainability sciences.

9. SZABIST

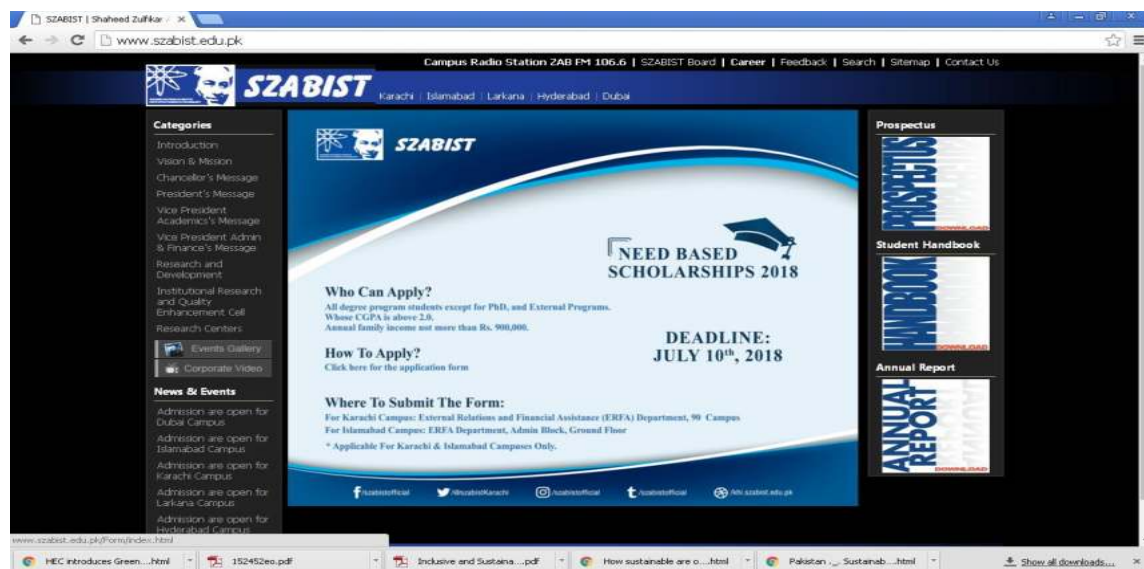


Figure 4.10 Screenshot of the home page of SZABIST (2018).

Black and blue were the colors used on the main page as a background with white font for the headings. 'News and events' were highlighted in white font on a black background color.

Black is the color usually adopted for a corporate, professional or entrepreneurial look while white font is the perfect contrast and gives a neutral impression. Black has also been symbolized in 'greening' discourse but it is still not as frequently used as compared to other colors.

Blue and white color combination was found in the ‘About Us’ link leading to ‘Introduction’. The green and black heading on the SDRC page was another preference of the website discourse of the university. Overall, the choice of colors was different than at other universities.

The theme of ‘greening’ on the ‘About Us’ link was signified with a picture of brown-coloured campus buildings, a blue cloudy sky, green trees, and lush green lawns around. The green leafed logo of the SDRC centre signifies ‘greening’. On the SDRC page, pictures of nature like a blue and white cloudy sky and green plants of different shapes on the green grass show an inclination towards ‘greening’.

A small photo sketch of the famous politician of the country, who had revolutionary ideas, in the logo of the university is a way to support this vision of a better country for the youth and poor people, and that is an inspiration for following the theme of ‘education for sustainability’. The theme of ‘sustainability sciences’ could also be traced through a picture of a galaxy with the logo signifying ‘universality’, ‘globalization’, or ‘internationalization’.

The theme of ‘education for sustainability’ goes hand in hand with ‘Sustainability Sciences’ in the verbal text of vision and mission as “global citizenship responsibility” and “distinction in service,” suggesting the former while “excellence in education, research, and development,” “national and global contemporary needs, hi-tech scientific and technological expertise, current and future socio-economic challenges” agree with the latter.

The theme of ‘Education for Sustainability’ was signified through the image of candle placement with a picture of a political personality in the ‘About Us’ link and vision and mission, which usually symbolize ‘guidance’ and ‘knowledge’, while the picture of a politician symbolizes the inspiration from the leadership and the principles and values to be followed.

A separate page for the centre that was devoted to a specified discourse on all the themes of campus sustainability discourse, i.e., the SDRC (sustainable development research center), was established by the university. Giving the idea of striving for the present and prospering in the future, the slogan captures the essence of the meaning of the term ‘sustainability’. Stating the purpose of this centre besides this logo, the quotation combines the theme of ‘sustainability sciences’ i.e., research and consultation in

collaboration with national and international organizations and with the three main areas of ‘greening’ i.e., energy, environment, and sustainable rural and business development.



Figure 4.11 Screenshot of the SDRC of SZABIST (2018).

Several links and tabs on the home page of SDRC, including a group photo of the SDRC team and a picture of a seminar or presentation, and a news and events section showing the global and national activities about ‘energy’ and ‘environment’, were signifying the active participation of the university in this discourse following the theme of ‘education for sustainability’.

The SDRC logo, surrounded by three big circles with a green-coloured font of written text, signifies the major areas quite clearly, as ‘Energy and Environment’, Sustainable

Business Development', and 'Sustainable Rural Development'.



Figure 4.12 Screenshot of the home page of SZABIST (2018).

The projects started by SZABIST were highlighted on the link to ‘about SDRC’ in the form of pictures through this center. The ‘Education for Sustainability’ theme is reflected in the ‘SDRC Gallery’. There are multiple pictures of seminars, conferences, projects, and other events. The pictures of the wind power plant with different windmills in white, the blue solar panel, a graphical picture of the wind power plant over a green area, and shadow pictures of people moving around and highlighting the university’s initiatives, especially projects of ‘energy conservation’ i.e., “SZABIST solar energy research station,” follow the theme of ‘greening’. pictures of real people involved in the project activities and a long verbal text about creating energy from fossil fuels.

The university not only relies on one center for the solutions as stated in the verbal text of the heading ‘about research centers’ which is proof of an effective discourse through organized and pragmatic ways to follow SDGs and implement ‘sustainability sciences’. Natural Sciences was dealt with in a separate center i.e. center of Biosciences Research (SCBR)’ managing the ‘Stem Cell Research Centre (SCRC)’. The lexical themes and projects cohere with the university’s effective stance on ‘sustainability sciences’ and ‘greening’ efforts.

The heading “SDRC: In Media” (see p. xi–xii) and mention of national and international organizations, the heading ‘SDRC: What You Can Do’ inviting people or

organizations to volunteer and contribute, especially in community service, energy policies, and saving the environment, involve themes like 'education for sustainability' and 'greening'. This involvement in different types of projects shows the serious efforts of the university towards the overall campus sustainability discourse.

Overall, the website discourse of this university communicates all three themes of campus sustainability equally and effectively through visuals and verbal text in a balanced way (SZABIST, 2018)

10. Hamdard University



Figure 4.13 Screenshot of the home page of Hamdard University (2018).

The colors used on the home page are the colors of the theme of 'greening'. Green and white backgrounds were used throughout the web pages. The name of the university and the logo introduction as 'Home' were in green font. All tabs were in green, while the verbal written text was in black font. The QEC page shows headings in green color. The QEC page uses colors like a white background with blue font which are also considered to be the signifiers of 'greening'. In the vision, mission, and objective of the university, the color purple and white as background colors of the picture are pertinent to 'greening' as well as the values that they reflect in sync with 'education for sustainability'. In the slideshow, the presentation of the logo and numbers in the green font for silver jubilee celebrations shows the university's preference for using this color. All of this suggests to be pertinent to the 'greening' orientation of the university in terms of its campus sustainability.

The pictures of buildings on websites are a way to promote the university's image, and the pictures of the main building surrounded by a green garden and flowers outside it; green trees outside; and inside the university, the building 'Idara-E-Said' with its big hall, gate view, and entrance gates illustrate the 'greening' theme for the sustainability of the university.

The page for ‘international memberships’ showed a picture of a white campus building with sky blue mirrors and modern architecture surrounded by a beautiful garden with trees, flowers, and grass outside it. A white campus building with sky blue mirrors and modern architecture is apt to illustrate the inclusion of international networking. Though ‘internationalization’ is a subtheme of ‘sustainability sciences’, the picture of a building surrounded by a beautiful garden with trees, flowers, and grass suggests attention to the theme of ‘greening’.

The theme of ‘greening’ is discernible in the form of verbal written text under these visuals on the home page. The description starts with the geographical details. The words and vocabulary of description related to the physical environment, nature, architectural location, and its geographical and historical value were emphasized.

A picture of a brown building named ‘Bait ul Hikma’ on the home page named ‘house of wisdom’ (translated in English) signifies the theme of ‘Sustainability Sciences’. ‘Model of book stand’ suggests the university’s concern towards seeking knowledge and the habit of reading, which again points towards ‘Sustainability Sciences’.

Producing ‘knowledge on contemporary lines as well as preserving and recreating the previous heritage of oriental knowledge’ and training scholars for it was a predominant theme of ‘Sustainability Sciences’ in the verbal description of the main campus, along with the greening theme of ‘an academic and healthy environment’.

‘Education for sustainability’ was shown through the picture of a convocation ceremony on the slideshow. This theme was manifested through the signifiers of slideshows, pictures, and pictograms.

On the slide show, the news of participation in the education expo, images of degrees with a gold medal, books, convocation caps, books, cards, and the pictogram of a human face where the head or brain area is circled with different colored round pictograms that look like icons ‘settings’ on our smart phones signify contemporary knowledge achievement and innovations influencing human life style and mind refer to the theme of ‘sustainability sciences’.

The picture of the founder of this university on the slideshow is a great advocate of 'sustainability sciences' in Pakistan and a famous personality in the field of herbal medicine and literature, i.e., Shaheed Hakeem Muhammad Said, and his quoted speech in Urdu language, which supports the same curriculum and syllabus for every student in every area of this country, signifies the prominent approach of the theme of 'sustainability sciences'.

The use of the national language for representing silver jubilee celebrations and quotes in Urdu represents the use of both the native language and international language, which comes under the theme of 'sustainability sciences'.

'Creating awareness for civic sense and public service' is one of the major themes apparent in both the visual and verbal discourse of the university. Slogans and visuals on the slide show for safe driving, CSR initiatives, and quotes about the character building of the founder of this university and the founder of Pakistan are directed towards the theme of 'education for sustainability'.

One page with the picture of Hakeem Saeed, highlights 'services' in the verbal text of the quote by him which advocates that the reason of this life is to love and serve Allah which is only possible through the services of His creatures. Qualities and values like sympathy, faith, dignity, honesty, responsibility, helpfulness, and knowledge were stated under the umbrella term of the theme of 'education for sustainability'.

One major way to serve the people is through the awareness and promotion of good health and it is said that the name of the university and its founder organization was named 'Hamdard', i.e. the Urdu word translated as 'a sympathetic person'. This quality of 'sympathy' is linked to the theme of 'education for sustainability'.

'Services to mankind' was the dominant theme along with other qualities like love, determination, and devotion preached by the theme of 'education for sustainability' under the heading 'The Founder' followed by another quote of his telling about his effort to prepare Pakistani youth for future challenges.

On one side of the hall was the picture of Hakeem Said (founder of the university), and the picture of Quaid-e-Azam (founder of Pakistan) was on the other side. These pictures

illustrate the importance of the ideology of Pakistan, as well as the ideology of its founder. Both personalities were supporters of the theme of "education for sustainability".

The vision, mission, and objective of the university include a visual of a great advocate of 'education for sustainability', i.e. a picture of Hakeem Saeed in the national dress. The verbal text projects the themes of 'greening' as 'state of the art educational and laboratory facilities' and 'a conducive environment'.

In the mission, 'Sustainability Sciences' was reflected in the 'Islamic concept of enlightenment' and 'academic programs' according to the contemporary needs of the 21st century. It also suggests the theme of 'education for sustainability' as progress in both a material and spiritual sense, including 'liberal education', sympathy plus action, and 'professional and personality development'.

"Process-driven approach" and the four-step cycle for quality assurance as: "Plan, Do, Check, and Act" (see p. xv) were the main lexical signifiers highlighted in the verbal written text of QEC. These signifiers relate to the theme of 'Sustainability Sciences'.

'International memberships' and other 'Memberships' like the 'INHAAQE' (International Network for Quality Assurance Agencies in Higher Education) and 'The Tallories Network' were illustrated in the corresponding verbal text, and its logo, consisting of a pictogram of a globe, also suggests 'internationalization' and is thus included in the theme of 'sustainability sciences'.

Though 'greening' has been suggested through several signifiers, the discourse is highly inclined towards the theme of 'Sustainability Sciences' while the theme of 'education for sustainability' was also used in conjunction with it. (Hamdard University, 2018)

11. The University of Lahore

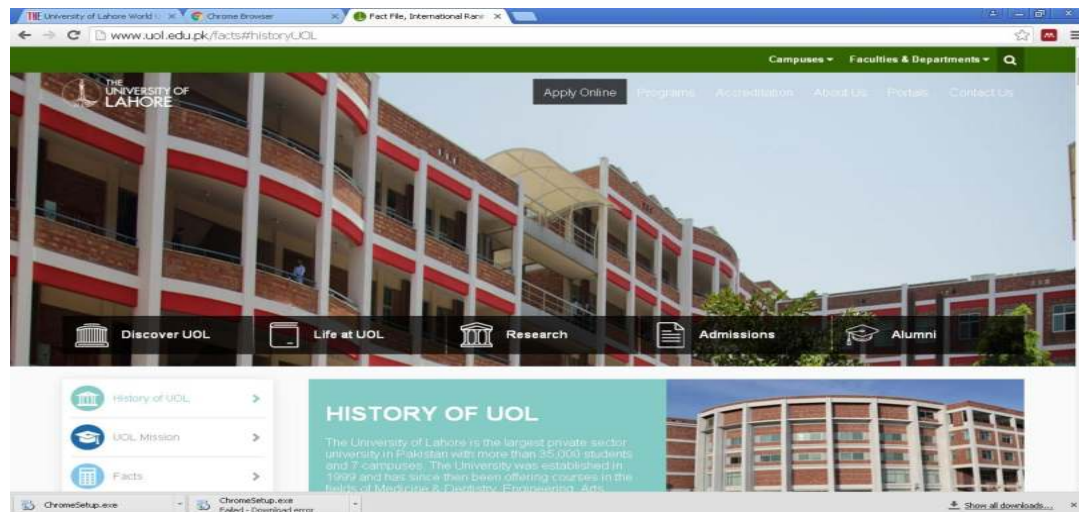


Figure 4.14 Screen shot of the home page of University of Lahore (2018).

Green is the main color used on the home page and other pages with white font; a cyan or sea green colored box of history of UOL; the name and logo of the university in the white font and the green background color and it is the main color suggesting ‘greening’.

‘Greening’ was reflected on the main page in the picture of the building of the university, with students inside, trees in front of the building, and a clear blue sky. On the history of UOL, a picture of the exterior view of the university building and the parking area was shown. The ‘About Us’ page, with pictures of the main entrance building, a green board on the building, and a few pictures of UOL buildings in red and white colored brick walls, communicates the theme of ‘greening’.

‘Greening’ or “green energy” was a preference, as expressed in the statement on the ‘About Us’ page, as the university’s effort “to become sustainable” by investing in ‘solar-powered generation plants and bio-gas plants, and it has brought the university into a position to be well-recognized for its environmental efforts and achievements (see p. xxii).

A picture of a map of Pakistan showing the location of different campuses all over the country is primarily promotional in nature, but it points towards ‘greening’ as it caters to different ecologies and environments with cultural similarities or differences.

On the home page, the theme of 'sustainability sciences' in the verbal written text was reflected through themes like 'teaching and research excellence'; different fields like engineering, medicine, law, etc. equipped with labs; knowledge sharing programs; and information reflecting activities of the 'education for sustainability' like the university achieving prominent positions at different quality-related criteria, e.g., in terms of the Asian ranking or "W4" category given by HEC; HRD programs; internships given to students; and skill development programs.

The theme of 'education for sustainability' was prominent in the verbal text of 'The Mission' in the mention of qualities like entrepreneurship, critical abilities, wisdom, Islamic ethos, and positive social norms without discrimination. The use of the term 'positive social capital' is a relatively new concept in the usual discourse of campus sustainability.

The plans for inculcating 'sustainability sciences' was evident in the heading 'Commercialization and Enterprise' for making 'medical park' and 'IT innovation centre' along with 'three technology parks' and the other headings like 'Teaching Excellence', 'Excellent Facilities', 'organization'. The heading of 'ACCREDITATION' brought 'education for sustainability' into purpose by enlisting several links with many well recognized organizations.

'Internationalization' as a subtheme of 'sustainability sciences' on the international linkages page was illustrated through small pictures of the country flags along with the brief verbal text highlighting the nature of linkage.

The theme of 'Sustainability Sciences' was also evident in the verbal text along with the pictures showing activities of researchers mentioning projects on the 'Research' page as the two main projects i.e. Agri-Bio Technology park and Centre for Research in Molecular Medicine (CRiMM) relate to the field of 'Natural Sciences'. The fields and nature of projects also show orientation towards the theme of 'greening' i.e. the mention of labs, green houses, cactus garden, etc.

As the university's name was based on a city in Pakistan, a separate link / tab on the main page was devoted to a wholesome description of this city i.e. 'About Lahore'. The page was primarily promotional in nature but it exhibits information about the architecture, location, sites, history, literature, culture, and traditions. The theme of 'greening' as well as

the theme of ‘education for sustainability’ was observed to be at work with the help of verbal written text as well as pictures of famous places of the city, museums, buildings, Mughal architecture, green gardens and trees, ponds, busy roads, lights, etc.

On the societies’ link, ‘events’ were illustrated through a slideshow, including pictures of all the events without any verbal text. Activities like the celebration of national and international days from awareness and mobilization point of view, especially from social, environmental, and ethical perspectives, are followed by the theme of ‘education for sustainability’. Creative activities like photography, the Olympics, dramatics, and extra-curricular activities are also part of this realm.

‘Sustainability Sciences’ and ‘education for sustainability’ were applicable in the verbal written text in the ‘Latest events’ section which communicates the collaboration of the university with international scholars and centers which are specially established for sustainability discourse, i.e. the Centre of Sustainability, Research, and Practice (CSRP), to arrange “1ST INTERNATIONAL YOUTH SUMMIT LAHORE 2017”. The platform for discussion on important issues by youth is itself implementation of the steps for campus sustainability.

The theme of ‘education for sustainability’ on the ‘About Us’ page is discernible in the slogan of the university, i.e., “Education is the most powerful weapon” and along with the picture of the university building, the message of the Chairman BOG puts the verbal text in context about sharing details of the ‘largest private sector university of Pakistan’ as the theme of ‘sustainability sciences’ into practice with words and phrases like ‘academic and social skills’; ‘commercialisation and entrepreneurship’; ‘independent thought driven by creativity and critical insight’; ‘experiences outside the classroom’; ‘internationalization’. The theme of ‘education for sustainability’ was imbibed while showing its prominent position in terms of international ranking.

‘Sustainability Sciences’ has been established in the verbal written text of the ‘About Us’ page informing about the campuses, departments, libraries, journals, and various disciplines.

The theme of ‘education for sustainability’ could be traced in the written verbal text, along with pictograms, showing at the end of the page the desire for enhancing creativity of the students.

‘Sustainability Sciences’ was communicated through signifiers, i.e., a pictogram of a galaxy-like structure captioned "Empower," symbolising ‘knowledge and resourceful sharing’; a pictogram of a globe captioned "Engage," referring to internationalization; the theme of ‘education for sustainability’ was rendered through a pictogram of a convocation cap captioned “Graduation” for academic qualification and confidence; and a pictogram of a trophy captioned "Awarding,” suggesting the reinforcement or reward of hard work and efforts.

Overall, the themes of ‘Sustainability Sciences’ and ‘Greening’ seem to be gaining more currency in visual and verbal text as compared to the theme of ‘education for sustainability’.

12. FAST-NUCES

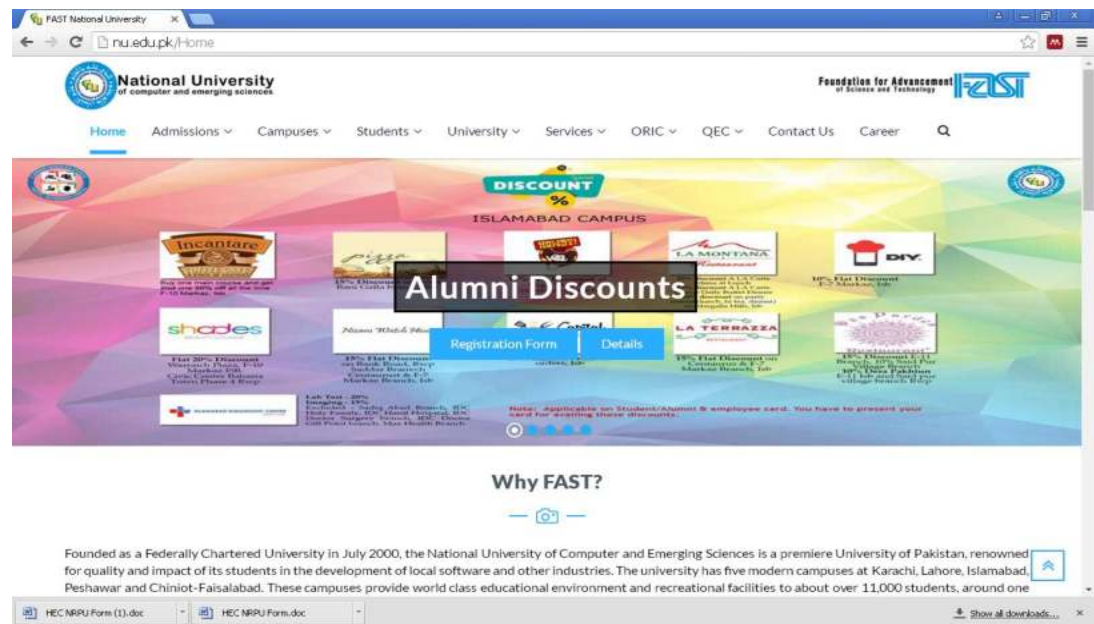


Figure 4.15 Screenshot of the home page of FAST-NUCES (2018).

The main background color of FAST home page was white, while text in the menu bar is of black font which was changed into sky blue color when the cursor is dragged on screen. White and blue are the colors used to denote sustainability and ‘greening’.

‘Greening’ pervades the pictures of the main buildings. There were images on carousel that displayed latest news and some basic information about the institute, pictures of ‘different campuses of the institute’ nationwide with informative captions, aerial view of the university and clipart of either news or event and the corresponding verbal text; the verbal text in headlines one after another in the next rows, endorsing themes of ‘greening’ and ‘sustainability sciences’ in its description of modern campuses and recreational facilities ; the development of local software and other industries”.

The theme of ‘education for sustainability’ could be deciphered in the other pictures, along with captions on the carousel were about various activities picturing ‘students’ life’; with bold font heading of “Higher job rate”, having background image of logos of various renowned corporations, employing its students of ‘financial aid’ in blue and black colors.

On the FAST-NUCES page, additional content was added in the student life section. Pictures along with captions were rephrased and changed. Some more points were added to the description under the heading ‘Why FAST?’ (see appendix IIIA, p.164)

A bold format heading “Why FAST?” is aligned at the centre with a clipart of the camera in sky blue colour and a verbal description of the heading revealing some basic information; Offered programs’ and two YouTube videos of FAST, side by side to each other, were mainly promotional and informative in purpose.

The theme of ‘sustainability sciences’ could be picked up in the promotional verbal written text of ‘Why FAST?’ in talking about “cutting-edge research having a direct impact on the social, economic, and technological needs of Pakistan”.

The theme of ‘greening’ was sensed under the heading ‘History’ in the verbal text, saying about “having spacious buildings and prestigious settings”.

The theme of ‘sustainability sciences’ was adapted in the verbal text of ‘Mission Statement’, aiming to contribute to a knowledge-based society in Pakistan.lead to a civil society with a knowledge-driven economy” (see p. xxiii) and producing graduates in

different sciences like computer, engineering, business management, and basic sciences to create the IT revolution (see p. xxiii). The theme of ‘education for sustainability’ stresses qualities like social equality, helping the poor, creating equal opportunities for them (see p. xxiii), and providing them with strong values (see p. xxiv).

The theme of ‘education for sustainability’ runs in the verbal text of ORIC Overview, which tells about research activities contributing to the national socio-economic stream (see p. xxiv), and in the verbal text of ‘Mission of ORIC’ i.e., partnerships with the industry (see p. xxiv).

The theme of "sustainability sciences" was prominent in the vision of ORIC, which is “to promote research and innovation in the local context” (see p. xxiv). The theme of ‘sustainability sciences’ in the ‘Functions of ORIC’ was evident in the verbal text about promoting pragmatic research according to socio-economic needs....; international and national funding; entrepreneurship (see p. xxiv) while the theme of ‘education for sustainability’ in “To periodically arrange awareness seminars, symposia and workshops” (see p. xxv).

The theme of ‘education for sustainability’ was prevalent in most of the verbal text of ORIC ‘Services’ noticeably in areas i.e. faculty awareness about research policies and grants; technological or social innovations..., and entrepreneurial opportunities (see p. xxv).

Overall, the themes of ‘sustainability sciences’ and ‘education for sustainability’ were equally more visible in the text as compared to ‘greening’ on the website pages.

4.2.1.2 Frequent Themes of Static Text (University Wise)

An overall summary of the themes emerging from modes and signifiers of the static text of each university along with its respective sector is given in the following lines.

In terms of frequency, the highest was the theme of ‘greening’ which was applied in total as 187 times in which it was found 105 times in the public while 82 times in the private sector. The signifiers showing all three themes or telling about overall campus sustainability discourse were the least frequent, i.e. 16 times in the public sector and 05 times in the private sector making 21 times in total in both sectors.

The theme of 'Education for Sustainability' was the second highest in both sectors, i.e. 166 times in total as it occurred equally in both sectors, i.e. 83 times in the public sector and 83 times in the private sector.

The theme of 'Sustainability Sciences' occurred 160 times in total, i.e. 97 times in public and 63 times in private.

The highest frequency of the theme of 'Education for Sustainability' was 35 times in a public sector university. It was found 22 times in private sector universities. The highest frequency of the theme of 'Sustainability Sciences' was 32 times in a public sector university, and that of the theme of 'greening' was 31 times also in a public sector university. In the private sector, the highest number for the theme of 'Sustainability Sciences' was 15 times while it was 20 times for the theme of 'Greening'. The highest frequency of all three themes or telling about overall campus sustainability discourse was 5 times in a public sector university and 3 times in a private sector university. So, the public sector superseded the private sector in presenting all three themes through various modes and signifiers of the static text on the websites.

A final summary of the themes associated with the visual data of the selected static text has been given below in Table 4.1.

Table 4.1: Frequency wise summary of themes of visual static text

Sr. #	Sector	University	Greening	SS	EFS	All 3 themes/ Overall CSD
1.	Public	IIUI	07	09	03	00
2.		COMSATS	23	08	12	04
3.		NUST	24	32	11	05
4.		AU	05	05	08	01
5.		KIU	31	19	14	04
6.		NUML	15	24	35	02
7.	Private	HU	20	15	14	01
8.		QUISIT	08	12	12	03
9.		SZABIST	18	06	07	00
10.		UOL	10	08	14	00
11.		IU	16	15	22	01
12.		FAST-NUCES	10	07	14	00

The following figure shows the percentage of the frequency of the three main themes of campus sustainability on the static type of text on the website discourse of both the sectors of Pakistani universities.

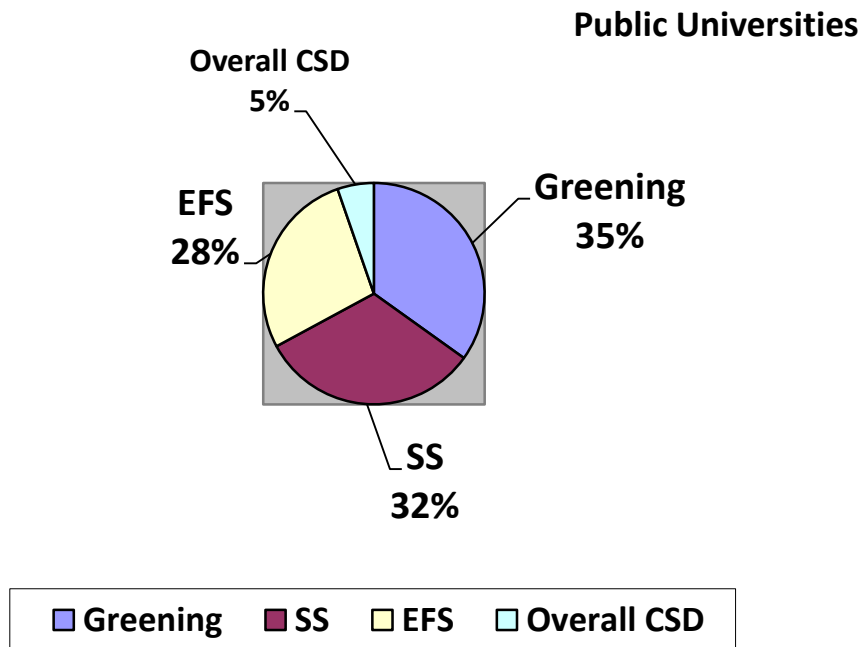


Figure 1 *percentage of themes of campus sustainability in the static text (public sector)*

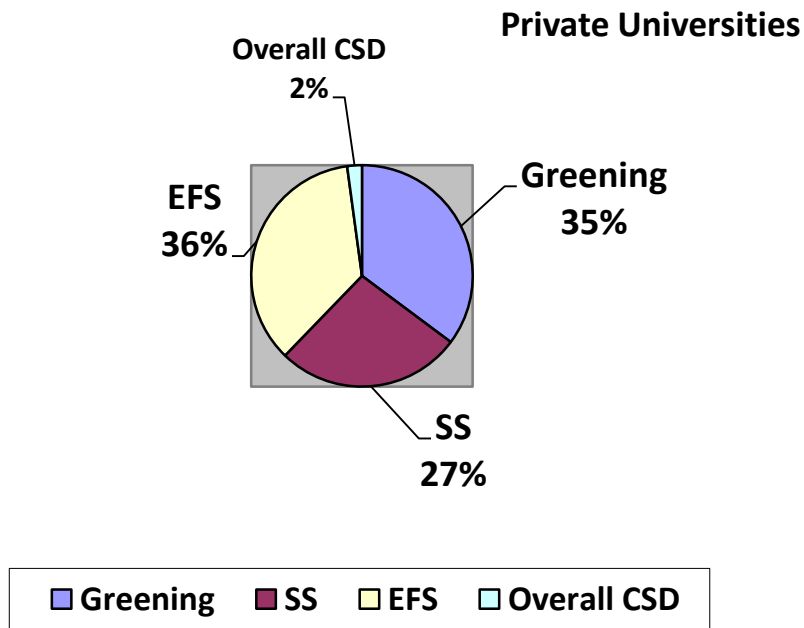


Figure 2 *percentage of themes of campus sustainability in the static text (private sector)*

From the above figures, it can be discerned that the theme of greening was the most frequent in the static text of university websites in both the sectors. However, there is difference in the frequency of the other two themes between the two sectors. The theme of sustainability sciences was the least frequent in the private sector, while it was the theme of ‘education for sustainability’ that had the least frequency percentage in the public sector while it was at the top highest percentage in the private sector discourse of static nature.

The high frequency of "*greening*" in static texts suggests a strong commitment to environmental initiatives such as planting trees, creating green spaces, and implementing sustainable landscaping practices. However, an over focus on greening alone might indicate a narrow approach to sustainability, potentially neglecting the other two. The other crucial aspects such as social sustainability, economic factors, or broader systemic changes might be missed.

4.2.1.3 Thematic Description and Analysis of Signifiers of the Dynamic Visual Text

A theme-wise description and analysis of signifiers in different mode combinations of the dynamic visual text have been done one by one in the following lines. The description and transcription of this text have been attached in the appendix VI (see p. ccxcii-cccliii).

The tables having these observations jotted down in terms of signifiers, modes and themes can be seen in the appendix VI (p. ccxcii-cccliii)

The main observations of the signifiers in the public and private sectors and an analysis of the observation tables with themes have been shared here.

1. The University of Lahore

The main purpose and orientation of this short video were promotional in nature, but the themes of campus sustainability are spotted through some signifiers. Firstly, the colors used throughout the video for the presentation of the content, e.g. in captions were green and white. They are the colors of the flag of Pakistan, which represent the identity of the country. These colors are also prominent colors of the theme of ‘greening’.

The visual had the shots along with brief, short captions and background instrumental music to illustrate the moving images, and it did not have any audio

commentary. The visual signifier was the pictogram of the famous monument, i.e., Minar-e-Pakistan. The place had historical significance too, as the name of the university takes after the name of the city in which this famous place is situated. The theme of 'greening' was being signified in the visuals of the video throughout, while the captions reflect the other themes as well.

'Greening' was signified by an aerial view of the university's surrounding area, a closer view of the location and building structure of the university, while its verbal caption reflects the theme of 'education for sustainability' in terms of presenting the ranking of the university.

With the visual signifier of 'greening' in a closer aerial view showing several students inside the corridors and floors of the building and the pathways and buildings, the theme of 'sustainability sciences' was emergent in the verbal caption about the labs with full equipment. An image of a computer lab with students working on them and the caption presenting "digital computers to allow students to embrace modern technology" also endorse the same theme. The theme of 'education for sustainability' was viable in the two captions about HEC recognition and the facilities of hostels. Along with the signifier, a view of open areas in the university, including the parking area, with the caption indicating playgrounds to motivate students and caring for their health connotes 'greening' and 'education for sustainability'. A scene at the cafeteria of the university, students enjoying and food being cooked with captions about the proper attention to the provision of hygienic food by the cafeteria and favourite items of the students, and the image of the university area surrounded by large green patches with the caption about bus facilities for the students signifies the theme of 'education for sustainability'. The caption stating "Best learning environment" presenting the 'scene of students studying in the library' connotes the theme of 'education for sustainability'. Another visual in which a student was shown picking up the book of his choice from the book rack of the library with the caption telling about the occupation of more than 20,000 books covering all the disciplines by the library also advocates for the theme of 'education for sustainability'.

The theme of 'sustainability sciences' was illustrated through a visual of a scientific lab showing students learning with the help of models of human anatomy, with the verbal

caption telling the availability of well-qualified teachers and medical labs that are fully equipped. It was also signified as an open-space area of the university surrounded by trees, as shown by the verbal caption about the various programmes offered at the university in different areas of natural sciences and social sciences.

The theme of 'greening' was noticed in the visual of young students sitting in the cafeteria enjoying themselves with the caption stating "friendly environment" and students studying together captioned as "group study environment" (see p. ccxcii-ccxciii).

Overall, the theme of 'education for sustainability' seems to dominate the other two themes of the video on the website.

2. COMSATS

The virtual tour of the university used the background instrumental music of a famous patriotic song, which signifies the theme of 'education for sustainability'. The 'greening' theme was the most dominant in the only visual illustrations as the visuals of the gate of the university; optional views of to zoom in, zoom out, reload, rewind, forward, view from all four directions; the reception area surrounded by green plantations and flower beds; the blue sky, clean pavements, and green areas in the background are informative as well as give an idea about the environment of the university. The next most used theme was the theme of 'education for sustainability' connoted by a few captions that were visible while showing different academic blocks and sites of the university, i.e., mosque, library, cafeteria, etc. (see p. ccxciii-ccxciv).

3. Hamdard University

The theme of 'greening' was protruding in the visuals with some instrumental sort of background music, i.e., an aerial view of the university, the main entrance of the university green area around, and different sites and buildings. It was also manifested in the visuals of several beautiful buildings with green plantations around and grey and blue-colored buildings with the caption "Hamdard University City campus" at the end of the video. The theme of 'greening' was prevalent in the signifier of a large world map somewhere in the university, leading to a large reading room where students were studying together.

The theme of 'sustainability sciences' was grafted, showing knowledge as a priority in the visual representation of the model of a book built at the entrance with the caption "25 years of academic excellence". The theme of 'education for sustainability' was prompted by the back-to-back visual of the outer view of the main building, i.e., 'bait-ul-hikma', and the admin office providing information captioned "Pakistan's first private university" and "a magical place for quality education".

The theme of 'sustainability sciences' was reflected in the scene of a computer lab with students using the computers and a side view of the library journals placed on the racks with the caption "a place where you can do and be anything". It was also signified in another visual of some students wearing lab coats and discussing their observations in the scientific and medical labs, with a verbal caption about the security of the students' future. The visual of students moving into fully equipped labs and classrooms with the caption "making the right choice" and the students working on electronic devices with the caption "that I can try anything myself" connote the same theme.

The theme of 'sustainability sciences' was also embedded in the shot of a big corridor decorated with some historical pictures and the picture of the founder of this university leading to a big library with several books and students around, with the caption "South Asia's largest library". It was illustrated through another visual of students studying there and various books in the racks with the verbal caption, i.e., "potential dreams and creative master minds" giving the message of motivation and creativity.

The theme of 'sustainability sciences' also turned up in the shot of students discussing in front of models of human skeleton with the caption "From Medicine to Pharmacy" and in another scene of students working in computer labs with the caption "Information Technology to Law". It was present in the visual of students studying in the classroom, with the verbal caption showing the range of different disciplines being offered, i.e., "from management to philosophy" and "planting the seed through hard work and through investment in mind".

Another shot of the students observing through microscopes in the lab, with the verbal caption revealing the sub-theme of building the stakeholders' trust, which mingles it with the theme of 'education for sustainability'. An aerial view of the university buildings

with green patches around leads to the building of 'Faculty of Eastern Medicine' where the students were dissecting the dead bodies and studying about structures and bones, along with their teacher with the same caption about 'trust' and another one as "This is what my heart craves". The theme of 'education for sustainability' was materialized in the shot of students playing football on the green grounds, with the caption labeling it as a place where the students learn to be brave.

The theme of 'education for sustainability' was figured out in the visual showing some female students walking and chatting in the corridors with the caption of "given freedom and encouragement", which are the values to be established in campus sustainability discourse. It was also manifested in the visual of the building of student-teacher centre with the caption "Hamdard University, your future awaits you"(p. ccxciv-ccv)

Overall, the 'sustainability sciences' theme exceeded its mention compared to the other themes on its website discourse.

4. Air University

The signifiers of the themes of campus sustainability discourse were spotted in the background verbal audio commentary along with the visuals with some light music. Colors are one of the significant signifiers of any theme. The theme of 'greening' was manifested in the blue color of the university logo shown at the start of the video, while we see nature in green color in different visuals of the university throughout the video.

The theme of 'greening' was cropped in the pictures of locations and buildings, e.g., the picture of the main building of the university surrounded by a green area, famous lush green, Margalla Hills, Faisal Masjid, tall buildings, and busy roads in Islamabad, the green sites of the university with the students moving in and out of them, and the close-up visual of the Pakistani national flag at the top of the building along with the university's logo.

The theme of 'education for sustainability' was evident in the pictures of some activities in the university, like some inauguration pictures showing the chief guest and famous personalities; students and faculty involved in academic, curricular, or co-

curricular activities; the visuals of filling out the admission forms; learning and teaching in modern classrooms; highly qualified faculty teaching with the latest audiovisual aids and resources; visuals of student-teacher ratio, etc. A clip of the inauguration speech of the special guest and a written vision statement were also projecting the same theme.

The theme of ‘sustainability sciences’ was also complementing the promotion of different faculties, like the faculty of Engineering by visually showing the number of students and the related latest equipment; the department of Administrative Sciences by showing the teacher-student classroom interaction; the faculty of Basic and Applied Sciences and the Faculty of Social Sciences with verbal descriptions of the activities and achievements accompanied by visuals of teacher-student interaction; students studying together and, using the latest equipment. A distinctive department not found in most other universities i.e. the ‘institute of Avionics and Aeronautics’ was promoted with the visuals of its spacious building, activities in Mechanical Engineering, Aerospace engineering and Avionics department, Optical Fibre network and Local area networks and visuals showing professionals operating the related equipment and doing research. The verbal written slides of industrial linkages; the pictures of specialized labs for each department, and the central library with a large collection of books and digital resources projected the same theme. ‘Internationalization’ was signified by linkages through the names and logos of the international universities. Providing the website link for further information at the end endorses the vigorous use of ‘sustainability sciences’.

The theme of ‘education for sustainability’ was evident in some of the clips in the activities of clubs and societies of the university, the placement office and its activities, workshops and seminars, the counseling cell, medical facilities, sports activities and games, transport services, the monthly magazine 'in the air' for updates, the pictures of young, keen students, the convocation pictures, and clips of chief guests’ addresses.

The verbal frames or signifiers of the background audio commentary over the visuals were analyzed as follows:

While telling about the history of the university and the location of the main campus, the theme of ‘greening’ was prominent in the lexical signifiers of “at the lush

green foothills of Margalla”; “an elegant state-of-the-art accord campus”; “for the development of a peaceful and enlightened society”; “the mountain campus”, etc.

Along with the promotional purpose of telling the number of students, different levels of programmes offered, a balanced student-teacher ratio, and foreign qualified faculty, the theme of ‘sustainability sciences’ was at work for the purpose of “.. professionals to enhance their skills”; “...excelling in teaching, learning, research, innovation and public service”.

The introduction of the main disciplines being offered in the university was primarily promotional but the fields promote ‘sustainability sciences’ i.e., the Faculty of engineering including the department of Electrical Engineering and the department of Mechatronics Engineering; the Faculty of Administrative Sciences; the Faculty of Basic and Applied Sciences including the department of Computer Sciences and Engineering and the department of Mathematics, the department of Physics; the Faculty of Social Sciences including department of Humanities including English, Pakistan Studies, Islamic studies and Sociology; the Institute of Avionics and Aeronautics (IAA) “at the cutting edge of research and development...”

The theme of ‘sustainability sciences’ was promoted in an electromechanical system research project for which grant was awarded “by a British Council and HEC Pakistan to establish a research as a strategic collaboration with the University of Cambridge United Kingdom” and “one of only five such universities that were selected by the British Council as role models for effective knowledge exchange between academia and Industry”.

The theme of ‘sustainability sciences’ was prompted in the description of labs in each department “all in sync with scientific progress and technology”. The number of labs was being told, i.e. “more than 20 engineering laboratories, eight computer labs and one language lab”. Scientific facilities were described as “its own private optical fibre network and a local area network for campus-wide internet connectivity”; “emphasizes education skills in a sophisticated language laboratory ... furnished with multimedia facilities and audio-visual tools”.

The projection of the theme of ‘sustainability sciences’ was done in the description of the “large central library”. Along with the large number of books, “also campus-wide access to more than 22,000 electronic journals ...”; “up-to-date with information in various social and technological fields”.

The aspect of internationalization was reflected in “developed strategic ties with renowned international universities to benefit from the learning of international scholars”.

The theme of ‘education for sustainability’ was evident in the description of “societies provides ... to participate in a variety of co-curricular activities through its clubs which instill leadership, organization and management skills”; “adventure club ...”; “The cultural society”; “career fairs, projects exhibitions and internships and on-campus employment, ... resume writing workshops, interview skills, seminars in lectures from top-level executives, managers and directors from major organizations”; “The counseling cell”; “... competitive events like interuniversity sports and galas”; “The large cafeteria”; “its own transport fleet”; “University's monthly magazine named ‘in the air’” and “excellent job prospects”.

The theme of ‘education for sustainability’ was envisioned while describing its mission, revealing values and qualities as “...to produce graduates with sound professional knowledge, integrity, character , a keen sense of social responsibility, and a passion for lifelong learning ...”; “an environment... conducive for learning”; “ promoting quality education and sound citizenship” (see p. ccxcv-ccxcix)

Overall, the theme of ‘sustainability sciences’ superseded the other two themes, both in the visuals as well as verbal discourse on the website.

5. Iqra university

The video displays the main campus tour only with background music and no verbal commentary. Only visuals with music and captions say it all. In the video tour, different images of activities at the university have been presented, which change from time to time. An image showing male and female students working on laptops in university computer labs is there. Another image is that of the university’s building with trees around and the green shrubs cut in the shape of the university’s name. Pictorial representations of

the computer labs show that the university follows the themes of 'greening' and 'sustainability sciences'.

The theme of '*greening*' prevailed in visuals of the blue sky, a large white-colored building, the greenery all around, the name of the university engraved on the green shrubs, and a building captioned as 'EDC tower'.

The theme of 'sustainability sciences' was conjured up in the visuals displaying the use of technology like in a classroom scene of students using computers captioned as "state of the art classrooms with multimedia"; a student surfing on a tab captioned as 'Wi-Fi facility'. This theme was also vividly exposed in the visuals of the lab e.g., a view of a computer lab showing students working with the caption "digital research lab"; a lab captioned as 'iMac lab' with sub caption i.e. 'with 100+ latest iMacs'; another lab and electrical equipment captioned as 'Engineering Labs'.

It was connoted in the visuals of the library filled with students, selecting books and studying together with the caption "library with 175+k books". The discipline of visual, media, and filmmaking was embedded in the picture of a camera captioned as 'film studio' recording a discussion program of the youth and the visual of audio equipment and the students playing musical instruments captioned as 'sound stud'.

The theme of '*greening*' was associated with the view of enough space and recreation places or opportunities in the shot of a large hall with several chairs captioned as the "main auditorium"; a large pool with clear blue water captioned as 'swimming pool'; a boy diving in the pool with the caption as 'jacuzzi' and separate saloon rooms as 'steam bath' and 'Suana bath'; students learning music labeled as 'music classes'.

The sports and fitness facilities were shown in the scene of a 'boys gym' and a 'girls gym' with the respective captions; students playing basketball, badminton, volleyball captioned as 'basketball court' and 'badminton court' respectively; students playing snooker and table tennis captioned as 'snooker room' and 'table tennis room' respectively; scene of students learning martial arts labeled as 'mixed martial arts classes'.

The opportunities for students' placement and job hunting were evident in the shots of students at the job fair labeled as 'annual job with 100 + organisations' and their logos

were shown. The financial transaction facility in the scene of a person using the ATM captioned as 'on campus ATM'. The verbal slogan in the end i.e. 'Where your future begins' carried the message of future concerns of campus sustainability (p. ccxcix-ccc).

Overall, the mention of the theme of 'education for sustainability' was a more dominant theme than the other themes in the video discourse.

6. FAST-NUCES

The video had the visuals, written captions along with the background voice of Urdu language commentary and the interview clips both in English and Urdu language.

The theme of 'greening' came up in the shot of early dawn with clouds and the sun rays lighting up the sky accompanied by the verbal signifier of a famous writer's quotation about the quality of imagination being unrestricted by science, unlike knowledge which may be. This is an apt visual for illustrating the importance of imagination in building creative and critical skills and this is supported by the theme of 'education for sustainability'. 'Greening' was evident in several visuals of students coming in and out of the beautiful lawns within the university buildings and beautiful fountains within the building.

'*Greening*' was the theme shared in terms of location and buildings or space facilities of the campuses of the university as in the Urdu commentary as "At present, ... five state-of-the-art campuses in The university buildings are open, ventilated, and air-conditioned... well-equipped laboratories, state-of-the-art auditoriums, seminar rooms, and research centers. In libraries, you will find books and research journals on all academic facilities. Our hostels are well equipped. ...food at reasonable prices from the cafeteria here".

The theme of '*sustainability sciences*' is conjured up in the visuals of a few formulas with the name of the university; interaction in the classroom, reading books in the library, the logo of the university reappearing with scientific and mathematical formulas following it. Visuals of students operating the electrical equipment and working in the computer labs with the verbal commentary stressing on 'science and technology' and focus on 'economic, scientific and artistic development'. It was also emphasized in the

verbal clip of interview of the VC in English language communicating the vision and history of the university as: "...excellent education in the field of Science and Technology".

'*Sustainability Sciences*' was communicated through the mention of disciplines in the Urdu commentary such as "... programs in computer science, management sciences, accounting and finance, civil and electrical engineering, mathematics, and applied linguistics". While telling about the origin of this university as a pioneer in the discipline of Computer Science "...has the honor of initiating the Computer Science Undergraduate Program in 1985, which was followed by others... to provide the best trained people to the software industry of this new Pakistan". This was illustrated by the visuals of peers discussing in the computer lab, operating electrical equipment, learning through LED projectors, teaching through electrical lab models, group study, library scenes, advanced scientific equipment, etc.

The theme of '*education for sustainability*' was in the Urdu verbal commentary with lexical signifiers as: "...Highly trained and experienced teachers ... in the areas of best education and practical skills and research. ... with the help of seminars, lectures and tutorials...". Statistical details of graduate students were mentioned, and "... to provide the best academic environment for teaching, research... and acquiring technical skills" and instill values like "... study with satisfaction and dedication".

The theme of '*education for sustainability*' was protruding in the commentary in visuals of students participating in sports activities, pictures of the founders, classroom note taking, students operating equipment, Karachi campus building, Lahore campus building, convocation group photo, the inauguration of new campuses, the beautiful lawns of the campus, student-teacher interaction in the classroom, students coming in and out of the corridors.

The verbal commentary in Urdu signifies the theme in the mission as "to create the best work force". In the comment of the founding rector and chairman Board of governors, the verbal signifiers for the theme were: "... to train quality manpower for Pakistan, to provide an environment for quality training ... national development". It was mentioned in the vice chancellor's interview clip intervened as: "... provide the infrastructure where

academics can proceed and develop in a proper way”. Extra-curricular activities mentioned as “...but also nurtures the extra-curricular activities of the students whether it is sports, culture or technology. 12 student societies that provide the best platform for all kinds of extracurricular activities... talented students and teachers.... to showcase their talents and become active and positive citizens of the society...many events throughout the year, including Nescon, Passion, E-Tech, Job Fair, Convocation and Alumni Dinner”.

‘Education for sustainability’ as the theme was at work in the quick visuals along with the Urdu commentary e.g., graduates showing gold medals in the convocation, Microsoft building, newspaper cuttings, clips of students studying in the library, and publication in Research journals. and pictures of successful graduates along with their achievements mentioned, i.e. pictures of young graduates who got international level honors and contributions in the field of visual effects artist; in the discovery of gravitational waves. The Urdu commentary along with that was: " ...the determined students ... are shining the name of their mother of knowledge all over Pakistan and abroad due to their high academic and technical skills. Success in ... 104 teachers of our institution have so far added 210 high-quality essays. Of these, 78 are used as references to the best research works in the world under the Impact Factor. ... provides equal educational opportunities for poor and deserving students. ..."

‘Education for sustainability’ in terms of giving financial aid to needy students was highlighted in an interview clip from Dr. Amir Mohammed: " ...we provide liberal financial assistance to the students....such that they need assistance". ; in Urdu commentary i.e.:" ..scholarships for students but also issues interest-free loans ...";" not created for financial gain but to meet the social, material and scientific needs of Pakistan."; in an interview clip from the Secretary General elaborated it as: " financial aid of close to 10 crores”.

‘Education for sustainability’ with the visuals of students coming in and out of the university building, the amount of scholarships and financial aid as text on the screen, notice boards, sports activities, etc. and verbal signifiers in terms of inculcating qualities like:

"Transparency in all areas including admissions, administration, offices, faculty, research and our resources Creating the human beings who have best character ";" ... not only to produce top scientists and experts, but also to create the best people with balanced roles ..." in the Urdu commentary. In a student's comment as:" a general out look at life differently than just focusing on your academic purposes. ... how to be professional, how to be a better human being. .." (pg. ccc-ccciii).

Overall, the theme of 'Education for Sustainability' surpasses all in the visuals and verbal text as commentary and interview clips on the website discourse.

7. Qurtuba University

The visuals with background music, captions and interview clips were used in this video.

'Greening' could be the theme represented in the scene of early sunrise at dawn captioned "2001" and then other captions one after another presenting a glorious picture, i.e., "the beginning of a history and identity, excellence, achievements, and revolutions". A picture of a huge building surrounded by trees with the Pakistani flag on top of it.

The theme of 'greening' was viable in the pictures of the famous sites of the city captioned "Peshawar", a building with students moving in and out of it and the staff busy in administrative activities. A staff member gave information about the historical reference of the name of the university with an old place in Urdu language as: "The Cordoba University of Science and Technology, ...established in 2001....., named it after the University of Cordoba... a huge educational center where people from Europe and all over the world used to come to get education. Keeping in view the current decline of Muslims all over the world, Niazi named this institution as Cordoba".

The theme of 'education for sustainability' popped out in the picture of two men and the captions about the administrative statistics and academic achievements and affiliations rolling as:" with 4 departments and less than hundred students"; the picture of sun rising in the clouds as background for the captions about the number of departments and students, programs, research journals, position in KP and in Pakistan private

universities, HEC ranking 2015, PhD qualified, MPhil graduates, recognitions, charters, accreditations by prestigious councils related to different disciplines”.

‘Education for Sustainability’ was emergent in the visual of outside view of the buildings, with the interview comments of faculty members telling the number of departments and programs, recommending it as "Students know until they know how much you care and ... recommend Qurtuba for making your dream come true".

The values aspired in the theme of ‘education for sustainability’ were communicated in the interview clips of different staff members i.e. highlighting the number of PhDs and MPhil graduates and the best positions they acquired:" The establishment of the University of Cordoba is under a missionary spirit..."; a library scene was followed by an interview clip from a faculty member: "...is not the name of an educational institution only. That is the name of quality education where the graduates acquire academic and moral excellence" and a comment like " enter to learn, leave to serve"; " defined new possibilities for the students"; " ... can teach you the skills and gives you the opportunity"; " ... a place where dreams come true"; " ... educating students by keeping in view the market relevance".

The theme of ‘Sustainability Sciences’ was reflected in the interview clip of the CS/coordinator Sciences and IT coordinator as: "... provides a platform where students do not acquire the knowledge of theories also the implementation of these theories" and the interview clip of a lecturer in entrepreneurship/ event coordinator as quoting the Chinese proverb as "... that teach me and I will forget, show me and I might remember but if you involve me, then I will never forget".

The theme of ‘education for sustainability’ could be spotted in the video clips of the celebration of Independence Day of Pakistan in tableau and songs, the background commentary along with the visual of the job fair, students helping the children, sports group photo, Independence Day group photo, students working in lab group photo, students getting the prizes, some more pictures of the officials in meetings, MOUs, awarding shields, famous poets visiting the university, famous days celebrated, etc. as :"...always encourage and motivate students to participate in co-curricular activities and important creativity of the students" The promotional purpose is evident in different students

descriptions of different qualities of the university as "... is great, phenomenal, excellent, exceptional, amazing, awesome, beautiful" (p. cccliii-ccciv).

Overall, the visual and verbal signifiers were in greater frequency for the theme of 'education for sustainability' than the other themes.

9. NUML

The visuals with background music, interview clips and written captions were part of this video.

The theme of 'greening' could be sensed in the pictures of the main entrance and the first main administration block of the university, the outer view of all the blocks and sites, students belonging to both local and foreign areas studying and moving in green lawns, library, cafeteria and pavements of the university, the recording and broadcasting scene in a media lab set up by the department of mass communication, an AV room, the gym, and the outer view of the administrative block surrounded by trees and flowers. Greening represents a concern for the environment. These images are signifiers suggesting the sustainability policy of a 'green' campus vision of the university. According to Adams (2016), universities promote their vision of environmental concern through environmentally focused activities in sunny settings, such as planting sprouts, and web page backgrounds are often occupied with images of green leaves, stylized graphics of trees, and close-up shots of diligent hands at work. The same graphics can also be observed in the images on the main page as well as in the video shots. This focus also makes it clear that the university holds the policy of a green environment and considers it an attractive element for the website's visitors. Projecting the green image of the university is one of the major constituents of campus sustainability discourse.

The theme of 'Sustainability Sciences' was majoring in the outer view of the central library, where the engraving of Arabic verse related to education was on the outer wall of the building, which was translated into 10 different languages there. The Arabic verse was *اَقْرَأْ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ* translated as: "Recite with the name of your Lord Who created"(1). The verse emphasizes the importance of reading and knowledge. Language is an important tool to hide or present the ideological standpoint of an organization. Thus, the use of various linguistic items and techniques in this regard makes it clear that the university

website gives emphasis to sustainability discourse. Moreover, it highlights what linguistic elements and methods can help an organization to establish such discourses.

The theme of ‘Sustainability Sciences’ was overpowering in the interview clip of the then rector telling about the special features of this university that are not common with the other universities in the words like “a unique distinction ...perhaps we are the only university which offers languages courses starting from functional courses up to PhD level and...properly organized departments...separate department for each language.... Way back in 1969... ..it was a modest institute and we were only offering 4 languages that is Arabic, German, French.....and over a period of time, we have produced certain high-quality linguistic professionals”. It was illustrated in some quick visuals of different teachers teaching different languages in the class, especially foreign teachers like Chinese, Korean, Japanese, European, etc., and students sitting in their language labs. The visuals accompanying it were: taking out from a drawer the library cards with Hindi written on them; and classrooms decorated with charts and maps showing student-teacher interaction.

This was also endorsed in the interview clip of the Dean of Languages with verbal signifiers as “NUML is a unique university in Pakistan which offers courses in more than 25 foreign languages ... caters to the needs of general public and govt. institutions. offers a unique 4 years bachelors in modern languages program in which students have a choice to learn 2 foreign languages and specialize in one of them as a major subject. Moreover, in all under graduate and graduate programs ... learning of one foreign language is mandatory”. Another visual connotes the same theme by showing the upper view of the library captioned as: “More than 29 oriental and occidental languages”. The verbal signifiers in the HOD Translation & Interpretation’s interview clip introduced his department as : “... caters for the requirements of translation industry and market at national and international level. .. offering certificate program and BS ... in multiple languages”.

The theme of ‘education for sustainability’ was viable in the scene of classroom interaction where students were keenly listening to the teacher, followed by a scene of several students walking around with the caption telling about the number of students every semester. It was reflected in the interview clip in the visuals of teaching through AV aids

like LCDs, boards, charts, and pictures; foreign students sitting in the classes; seminars in the conference room and library; student-teacher discussion; and the shot of two Chinese students studying on a grassy pasture captioned “800 foreign nationals enrolled in various disciplines”. The verbal signifiers in the interview clip of Dr. Liu Yao (HOD Chinese) were: “Besides already Chinese language classes, we have also launched a series of cultural promotional events, teachers training and many other activities”, accompanied by the visual signifiers: “Chinese teachers teaching Chinese language to students both at a one-on-one level and as a whole class.” A scene of an inter departmental speech contest and audience belonging to different nationalities with the caption “facility of auditorium for different events”; students sitting together with a desktop in front and involved in discussion; a number of laptops available, tall buildings with caption “hostels for boys, girls and foreigners”, students chatting in groups around the trees and sitting on the pavements sharing their thoughts, teacher teaching on power point slides on LCD in the classroom, students making notes in the library and big book racks filled with books in the library with the caption “state-of-the-art-library” show the campus block, surrounded with trees, with caption “alumni strength of over 35,000”.

With promotion of the programmes offered as the main purpose, the theme of ‘education for sustainability’ could be sensed in the interview clip of the Dean of the Faculty of English talking about having well-qualified faculty, i.e., “The faculty of English studies at NUML has been one of the largest faculties that is comparable to any faculty in any university in Pakistan. more than 20 PhDs teaching ..., more than 50 of our faculty have acquired their MS and MPhil degrees and overall, more than 200 faculty members are associated with the faculty of English studies”.

The theme of ‘sustainability sciences’ also permeated, while telling about the number and variety of courses as promotional content, as verbally signified in the interview clip of the then Rector NUML as: “Other than languages, we also offer courses in engineering, computer sciences, management sciences, social sciences”. The courses were more contemporary and technology related as signified in the interview clips of the Dean Faculty of Engineering & Computer Sciences as: “... we are the only faculty which is offering the program which needs latest trends and challenges of 21st century in the information and communication technology” and in the clip of the Dean Faculty of Social

Sciences as: "...one of the most dynamic faculties ... providing conducive learning environment for students by equipping them with knowledge and skills that is required for citizens of 21st century". The visuals running along with it were: students moving towards the campus buildings; two students sitting in the library reading books; a student sitting outside the department and making notes; students in the classroom noting lectures while the teacher is explaining; and a student working on the laptop in the library.

The theme of 'greening' was interweaved with the theme of 'sustainability sciences' by showing the campus lawns filled with blooming flowers and green grass and students walking around it; teachers instructing in language labs and students busy learning on their desktops and then, showing the department building of Faculty of management sciences from outside followed by verbal signifiers in the interview clip of the Dean of Management Sciences as: "... committed to provide real high quality business education to our students with due regard to the emerging and prevailing trends in the international market.... towards entrepreneurship and nurturing, grooming such business traits and qualities ... become good business executives". It was further supported by the visual of an inner view of broadcasting room showing the person operating the equipment captioned as "facility of campus radio" (p. cccv-cccvi).

Overall, the theme of 'Sustainability Sciences' was more frequently used in the visuals and verbal signifiers, with a little less frequency of the theme of 'education for sustainability', and the theme of 'greening' was the least frequent in this video discourse.

10. NUST

The video with soft yet energetic instrumental music highlights some information, e.g., rankings, and campuses, all in short sentences. All the information was on a blue background, while the text in the video was in white font color with blue circles around it. The background of each heading or information contains relevant pictures and short clips captured inside the university. Blue and white are the common colors used to represent the theme of 'greening'.

The theme of 'greening' was connoted in the image in the background, i.e., the aerial view of the NUST, Islamabad campus; a vast land area surrounded by large green patches; image of campus headquarters. The captions, i.e., "NUST", "Islamabad" and

“Public research university” appear on the top of the buildings. The heading tells the reason of being Pakistan’s leading university in terms of rankings with regard to the world, Asia, and the fastest growing universities under 50 years old.

With promotional dimension, the theme of ‘education for sustainability’ was implicit in the visuals i.e. zoomed out view of hostels and different institutes such as IESE and the caption telling about the number of cities, campuses, constituent institutions, and programmes of the university; visuals of students inside a big exam hall followed by military branch students or cadets shot of military cadets in white uniform in rows on university ground, with captions telling about the number and percentage of acceptance rate, merit based admission, students, PhD faculty; the slideshow about ‘internships’ the verbal text captions with visuals as the background i.e. a female student studying with text in phrases as “100% internships, 93% graduates employed, 530+ entrepreneurs”.

The theme of ‘greening’ in the visuals like shows; spaciousness; greenery; aerial views of the buildings of Islamabad campus; the head office building while the caption on it links it to the theme of ‘education for sustainability’ i.e. “Need based Scholarships, USD 16 million since 2010 for 1500+ students”.

The theme of ‘education for sustainability’ was reflected in the visuals captioned as “World Class sports facilities”. The visuals were about the riding club facilities, the gymnasium for students, students playing table tennis, the basketball court, indoor sports hall, students playing on football ground, the squash court, and football ground.

The theme of ‘education for sustainability’ in terms of student clubs and societies; the environment club carrying out their clean drive, i.e., to clean the parks and grounds from trash; clip of a past concert captioned as: “30+ student societies” and on the sub-captions “community service, entrepreneurship, literary/ fine arts, adventure & sports, environment, entertainment & media”; the visual of a visit and talk given by a well-known Pakistani actress, inside the campus; another concert clip showing students enjoying; a group of NUST students performing at an event.

The theme of ‘greening’ was viable in the caption of “campus care” with sub captions as “accommodation, medical services, cafeterias, and shopping centers”. The visuals running in the background of the captions were of students sitting near the lake

inside the NUST, Islamabad campus during the winters. This is followed by a clip of a cricket match being played on a TV inside the male hostel lounge with students clapping, a male student studying outside the cafeteria on the ground, a few girls walking on the campus road, students eating in the student cafeteria, and a male student singing in his room while playing his guitar.

The theme of ‘education for sustainability’ was embedded in the title of the last part of the video i.e. “Diversity and inclusion” showing the visual of international students attending a lecture. The sub captions were: “cultural diversity, socio-economic inclusion, equitable environment for the differently abled” illustrated by a clip of students attending a lecture or talking inside the seminar room and enjoying it. This kind of discourse is significant as Education for Sustainability (EFS) is becoming a substantial agenda of educational institutions worldwide. Thus, the website reveals the concern of the said university in this domain. Additionally, it also meets the requirements of the UNESCO schema for sustainable education, according to which “UNESCO aims to improve access to quality education on sustainable development at all levels and in all social contexts” (<https://en.unesco.org/themes/education-sustainable-development>).

The theme of ‘Sustainability Sciences’ in terms of research facilities was illustrated with the captions “state-of-the-art labs and facilities” and “R&D aligned with industry and society needs” and a visual of a teacher and students’ discussion, images of computing systems and equipment, and a moving robot designed and developed by students; students working on their systems in a lab.

The theme of ‘Sustainability Sciences’ in terms of ‘internationalization’ was visible in the third slide show, i.e., a student working in the lab and the lab of the bioinformatics department. “International linkages-140 institutions, 32 countries” was the caption of the visual showing international students holding a discussion in the background, followed by a short clip of an international student working in a bio lab; another international student studying on his desk; and a small robot developed by students of robotics major.

The theme of ‘Sustainability Sciences’ was applied in the last part of the video as some words appeared and were replaced. The first word “defining” remained unchanged till the end, while the second word “research” was replaced by “innovation” after few

seconds which was further replaced by “entrepreneurship” appears which was further replaced by “Excellence” replaced by “Futures” and then, it stopped making it ‘Defining Futures’ i.e. the main slogan of the university and part of the logo as well (see p. cccic-cccxi).

Overall, the theme ‘education for sustainability’ superseded the other two themes of campus sustainability in the video discourse of this website.

4.2.1.4 Frequency Summary of the signifiers’ themes in the dynamic visual text

The following are the underlying themes that are being illustrated in the form of tables for the selected data. These tables have been presented in the appendix VI (see pg. cxcvi).

Table 4.2: Final summary of the themes of signifiers of the dynamic visual text

Sr. #	Sector	University	Greening	SS	EFS	All 3 themes/ Overall CSD
1.	Public	IIUI	-	-	-	Video not accessible
2.		COMSATS	02	-	-	-
3.		NUST	03	04	08	-
4.		AU	03	11	15	-
5.		KIU	-	-	-	-
6.		NUML	06	14	07	-
7.	Private	HU	04	10	04	-
8.		QUISIT	02	05	07	01
9.		SZABIST	-	-	-	No video available

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collection

10.	UOL	11	04	02
11.	IU	05	06	03
12.	FAST-	07	09	11
	NUCES			
	Total	47	63	57

From Table 4.2, it is evident that the theme of ‘*sustainability sciences*’ occurred in the highest frequency when the statistics from both sectors were combined. This theme was observed 63 times; the second highest was the theme of ‘education for sustainability’, i.e., 57 times, while the theme of ‘greening’ was the least one in comparison to the other ones i.e., 47 times.

The strong emphasis on Sustainability Sciences gives orientation to the research and scientific approaches to sustainability is crucial for innovation and evidence-based solutions. However, the focus on "sciences" may exclude important contributions from the Humanities and Social sciences vital for understanding the societal dimensions of sustainability. A proactive approach to showcasing scientific achievements which has the potential to attract funding and collaboration is suggested by the high frequency of videos. But there is a possibility that too much reliance on videos might not reach all stakeholders effectively, especially those who prefer or require detailed written documentation for in-depth understanding.

The prominence of the theme of EFS indicates that universities are integrating sustainability into their academic system or curricula that is crucial for long-term cultural and behavioral transformation or refinement. But there are challenges of integrating it due

to interdisciplinarity, and the awakening theoretical thinking about sustainability issues across various fields.

The following figure shows the percentage of themes regarding campus sustainability in the public and private sectors.

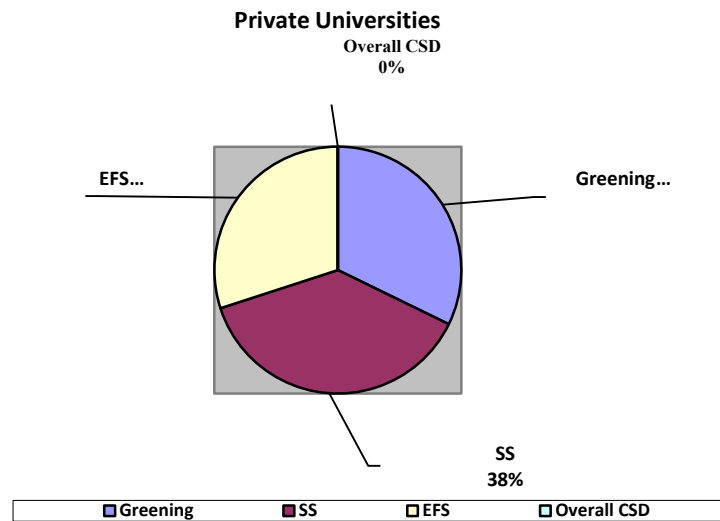


Figure 3 percentage of themes of campus sustainability in the dynamic text (private sector)

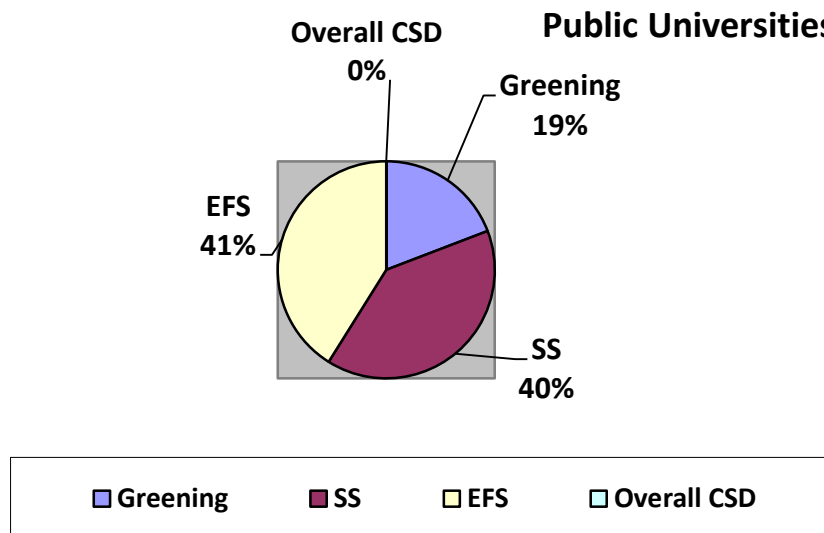


Figure 4 *percentage of themes of campus sustainability in the dynamic text (public sector)*

The above figure shows the percentages of the three campus sustainability themes. The private sector outstood the public sector, i.e., 29 times in comparison to 14 times with respect to the theme of ‘greening’ in the videos. This sector was also dominant in the signifiers of the theme of ‘sustainability sciences’, occurring 29 times in public and 34 times in private sector universities’ websites. The theme of ‘education for sustainability’ was projected a little more, i.e., 30 times in the public sector as compared to 27 times in the private sector videos. The theme of greening was the least used theme w.r.t. the percentages observed in the public sector, in contrast to the other two themes.

The theme of ‘greening’ was illustrated in higher frequency in the private sector videos. The highest one was by UOL video i.e. 11 times. The second highest frequency was also found in a private university i.e. 07 times. A public sector university i.e. NUML also displayed it 06 times.

The main signifiers were as follows: logo as a pictogram of famous monument; captions in green or white colored font; the view of open areas in the university, including the parking area with captions about physical health and sportsmanship; An aerial view of the buildings ; the interior and exterior of campus building from different angles; cafeteria

scenes with the captions about hygienic meals and friendly environment; the captions about bus facility; scene of students studying in the library with the caption about the best quality of learning environment; scene of library showing students using the space of library with the caption about its well- equippedness covering all the disciplines; Scene of few students studying together with the caption of "group study environment"; the building of 'Faculty of Eastern medicine'; Several beautiful buildings with green plantation around spaciousness and greenery; description of buildings are open, ventilated, and air-conditioned; students coming in and out of the corridors; image of famous lush green Margalla hills, famous Faisal mosque, tall buildings and busy roads in Islamabad; green lawns; early dawn with clouds and sky being illuminated by the sun.; a media lab showing scene of broadcasting room facility of auditorium; the person operating the equipment with the caption "facility of campus radio"; student teacher interaction in the classroom, operating equipments; students sitting together with a desktop in front and involved in discussion; a number of laptops available; Student working on the laptop in library; hostels for boys, girls and foreigners ; scene of a gym for boys and girls; a large pool with clear blue water was captioned as 'swimming pool' students playing basketball, badminton, volley ball captioned as 'basketball court' and 'badminton court"; music classes; ATM captioned as 'on campus ATM'.

The highest frequency of the theme of 'Sustainability Sciences' occurred in the public sector more, i.e., 14 times in a public university, i.e., NUML. The second highest frequency i.e. 11 times was found in a public university, i.e., Air University. The third highest frequency, i.e., 10 times was found in a private university, i.e., Hamdard University.

The major signifiers in this regard were: captions like "Public research university"; a scene of an entrance exam or interview waiting room with the caption on it about large figures of several students and PhD qualified faculty; heading regarding research facilities with the caption "state-of-the-art labs and facilities" and "R&D aligned with industry and society needs" which features a short clip of a teacher and students discussing some work followed by images of computing systems and equipment and ending with a robot designed and developed; a student working in the lab and then a short clip of lab of bioinformatics department; "International linkages-140 institutions, 32 countries" by a short clip of an

international students working in a bio lab features a small robot developed by students of robotics major; Sliding captions of “defining” “research” which is replaced by “innovation” after few seconds, Then “entrepreneurship. “Excellence” is the next word in line. And the last word is “Futures”; the scene in a scientific lab where students were discussing with the help of models like human skulls, digestive system with the caption of "highly qualified teachers and fully equipped medical Labs"; with the caption of "programs offered 1. Pharmaceutical Sciences 2. Engineering and Technology 3. Allied Health Sciences 4. Business and Management Sciences".

The verbal text serves as the background voice for the mission, i.e., aspiring to lead through excelling in teaching, learning, research, and innovation. Mentioning of different faculties, i.e., the Faculty of Engineering; Administrative Sciences; Basic and Applied Sciences; Social Sciences; and the Institute of Avionics and Aeronautics (IAA); research projects focusing on micro-electromechanical systems—to establish research as a strategic collaboration with such international universities known as role models for effective knowledge exchange between academia and industry; over 20 engineering laboratories at a university, all in sync with scientific progress and technology, with each department having its own customised lab, its own private optical fibre network, and a local area network; language laboratory; teacher instructing in language labs and students busy learning on their desktops; Descriptions accompanied by visuals of teacher-student interaction, students studying together, and using the latest equipment; the outer view of the central library building, on which engravings of Arabic verse relate to education and are translated in 10 different languages; interview clip of the then rector of the university telling about its unique distinction of offering language courses up to PhD level and a separate department for each language; Different teachers teaching different languages in the class, especially foreign teachers; offering 29 occidental and oriental languages; and the production of certain high-quality linguistic professionals; HOD Translation and Interpretation: The department interview tells about the purpose of catering to the needs of the translation industry and market at the national and international level; offering programmes about the latest trends and challenges of the 21st century in information and communication technology; and also the departments of mass communication, education

and applied psychology, peace and conflict studies, international relations, Pakistan studies, and Islamic studies of the faculty.

Providing conducive learning environment for students by equipping them with knowledge and skills that is required for citizens of the 21st century; not only a centre of excellence but “the diverse university of all general subjects”; a model of a book built at the entrance bears the caption as "25 years of academic excellence"; view of a large hall like corridor decorated with some historical pictures and the founder of this university leading to a big library with several books with the caption as "South Asia 's largest library".

Visual of students studying in the classroom carries the caption "from management to philosophy" and "planting the seed through hard work and through investment in mind; the origin and naming of university in Urdu language for the purpose of revival and renaissance of Muslims and their educational centers i.e. University of Cordoba ; provides a platform where students do not acquire the knowledge of theories also the implementation of these theories"; a quotation by famous writer, Bertrand Russell, about science and knowledge i.e. "science may set limits to knowledge but should not set limits to imagination"; a few formulas with the name of the university in the centre; Key words in commentary like " science and technology"; “committed to artistic development”; their vision was that Pakistan cannot be established as a strong country unless we have excellent education in the field of Science and Technology; specialists serving in higher education and astronomy institutes across Pakistan and abroad; “the best academic environment for teaching, research and acquiring technical skills; telling about their students’ achievements in different fields of knowledge as determined studentsdue to their high academic and technical skills. Success in research used as references to the best research works in the world under the impact factor.

The highest frequency of the theme of ‘Education for Sustainability’ was found in the public sector i.e. 15 times in a public university, i.e., Air University. The second highest was found 11 times in a private university, i.e., FAST-NUCES.

The major signifiers were: text mentioning the achievement of university in terms of rankings; internships; graduates employed; Scholarships; a quick shot of students

coming in and going out of the department and then entering into fully equipped labs and classrooms with the caption "making the right choice", the students working on electronic devices with the caption "that I can try anything myself"; student societies ; the captions "community service, entrepreneurship, literary/ fine arts, adventure & sports, environment, entertainment & media; caption is of "campus care" which is sub captioned as "accommodation, medical services, cafeterias and shopping centers"; "Diversity and inclusion" as the title of the last part of the video, in which international students are shown standing and listening to a lecture. The sub-captions were "cultural diversity, socio-economic inclusion, and an equitable environment for the differently abled." This is followed by a clip in which these students are attending a lecture or talk inside the seminar room about leadership, organization, and management skills. adventure club. The cultural society includes career fairs, project exhibitions and internships, on-campus employment, resume writing workshops, interview skills seminars, and lectures. The counselling cell encourages sports for students to develop physically as well as mentally through competitive events like interuniversity sports and galas. The mission of a university is to achieve excellence in teaching and research to produce graduates with sound professional knowledge, integrity, character, a keen sense of social responsibility, a passion for lifelong learning, quality education, and sound citizenship; convocation pictures and clips of the chief guest's address; a large number of students enrolled; a series of cultural promotion events; teacher training; and many other activities; Chinese teachers teaching Chinese language to students both at one-on-one level and as a whole class; A student standing on the dice and participating in inter-departmental speeches with an audience belonging to different nationalities; the caption "given freedom and encouragement"; students playing football in the green grounds with the caption, i.e., "This is where I learned to be brave"; a visual of the job fair; students helping the children; a sports group photo; an Independence Day group photo; students getting the prizes.

The background commentary about encouraging and motivating students to participate in co-curricular activities and the creativity of the students; state-of-the-art campuses; and the best platform for all kinds of extracurricular activities.

Pictures of the officials in meetings, MOUs, awarding shields, famous poets visiting the university, famous days celebrated etc. ; mission was to train quality manpower for

Pakistan, to provide an environment for quality training for brilliant students so that they can play a role in national development; the best possible facilities for our students and provide the infrastructure where academics can proceed and develop in a proper way; “talented students and teachers”; “ active and positive citizens of the society”; “ hosts many events throughout the year, including NESCON, Passion, E-Tech, Job Fair, Convocation and Alumni Dinner; “..... provides equal educational opportunities for poor and deserving students; Transparency in all areas”; “.... Creating the best human beings who have best character to produce top scientists and experts, but also to create the best people with balanced roles so that Pakistan can serve the world”.

Hodge & Kress (1997) are of the view that there is a possibility of interaction between modality and ideology. The current exploration also follows this by probing the different signifiers (both verbal and visual) in different modes interacting with the idea of campus sustainability discourse on the websites (p. 37).

4.3 Modes of Static and Dynamic Data

A frequency-wise description and comparison of modes first in the static text and then in the dynamic text of videos have been done one by one in the following lines.

4.3.1 Frequency of Visual Modes of Static Text

The modes used by the still text and the dynamic text, i.e., videos, were similar and different in several ways. The following observations were noted:

There were a total of 412 occurrences of the modes, of which 212 appeared in the private sector and 200 in the public sector. Some of the modes have been repeated in a combination in such a way that they have been placed as the ones that utilised more space and content as the first and the next counterpart, and the later one was mentioned in the combination, e.g., the combination of modes like ‘verbal written text + photo’ where the first mentioned was more in content than the mode of photo. Mode combinations or multimodal ensembles are of special significance to such studies where there is a link between particular themes to identify the type of overall discourse. as “Kress is particularly interested in how structures of (multimodal) communication are symptomatic of ideologies and the distribution of power relations in a community or society” (Forceville, 2011, p. 2).

With respect to the discourse of academia, the campuses show their orientation to the different themes of sustainability. It might not be their 'ideological' orientation in the strictly literal sense of this term, but it shows through their preferences by using multimodal discourse on different public platforms.

The following is a list of modes, submodes and their combinations found in the static data in the descending order of their frequency.

1. Color
2. verbal written text
3. Map
4. social media links
5. Slide show (PPT)
6. PPT slide
7. Diagram
8. picture on the slide show
9. Language (Urdu)
10. Language (Arabic)
11. Banner
12. slide show
13. clip art
14. Icons
15. Video
16. Videos
17. Photo
18. Photos
19. Picture
20. Pictures
21. Sub link
22. Sub links
23. Photo on the slide show
24. Photos on slide show
25. logo

26. logos
27. pictogram
28. pictogram+ caption
29. pictograms+ captions
30. logo+ caption
31. logo+ captions
32. picture +caption
33. pictures+ caption
34. caption+ pictures
35. Photo+ caption
36. Photo +captions
37. Photos+ caption
38. photos+ captions
39. graph+ caption
40. Photo+ Verbal written text
41. photos+ Verbal written text
42. map+ verbal written text
43. verbal written text+ photo
44. Verbal written text+ photos
45. Small photo icons+ verbal written text
46. photo on the slide show + captions
47. Photos on the slide show+ captions
48. PPT slide +caption
49. Slide show+ caption
50. Photo+ picture +caption

4.3.1.1 Comparison of Modes of Static Text in the public and private sector

The following graph shows the frequency level of the most frequent modes found in the static text of the website discourse of Pakistani public universities.

Public Sector

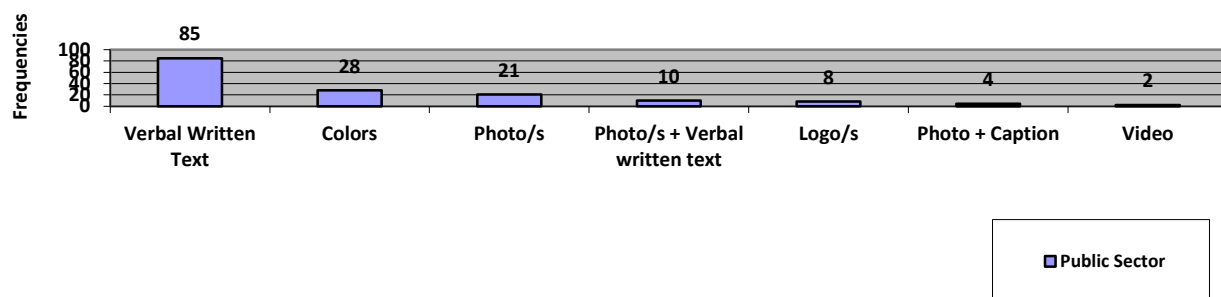


Figure 3 Frequent modes of static text in the public sector

The most highly frequent mode was ‘verbal written text’, i.e., 143 times in total. The private sector used it 58 times, whereas the public sector used it 85 times. The second highest was the sub-mode of ‘colors’, i.e., 81 times in total, while appearing 53 times in the private sector and 28 times in the public sector. The mode of ‘photo/s’ was the third highest, i.e., 45 times in total. It occurred 24 times in the private sector and 21 times in the public sector.

‘Photos + verbal written text’ was employed 17 times in total. It occurred seven times in the private sector and 10 times in the public sector. ‘Logo/s’ was also a prominent sub-mode. It was visible 14 times in the private sector and 8 times in the public sector. ‘Photos+ caption’ was used in 4 different combinations or 11 times in total. It was employed 7 times in the private sector and 4 times in the public sector.

The languages other than English, i.e., Urdu and Arabic, were found as modes of verbal text that appeared six times in total at various places in the text. Urdu was only used three times in private universities, whereas Arabic was twice as common in the public sector as in the private sector.

‘Video’ as an icon on the still text was mentioned five times in the private sector only, while a ‘video portal’ on which different videos are uploaded was found to be contributing two times in the public sector only to communicate sustainability themes.

Most of the modes were found in both the sectors, but some of the modes were present only in one sector, i.e., they were either public sector specific or private sector specific. The only mode that appeared in the public sector only was: ‘Photos on the slide show+ captions’.

The modes that appeared in the private sector only were: *social media links, Slide show (ppt), Ppt slide, diagram, picture on the slide show, clip art, Photo+ picture +caption, Slide show+ caption, small photo icons+ verbal written text etc.*

The prominent modes that were found in both the sectors in equal numbers, i.e., *map, banner, video/s, Photo+ verbal written text, etc.*

The prominent modes that were found in the private sector more: *picture/s, logo/s, Photos + captions, verbal written text+ photo, Ppt slide +caption etc.*

The prominent modes that were found in the public sector more were: *slide show, icons, sub links, photo/s on the slide show, pictogram, etc.*

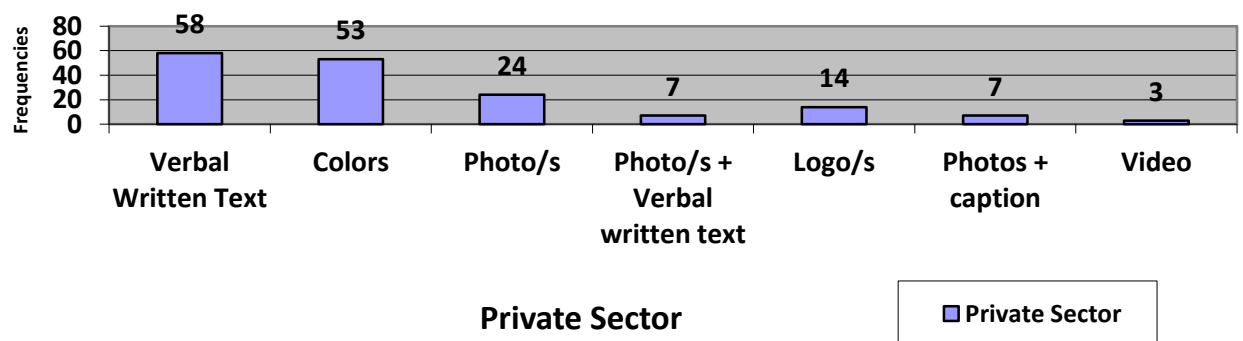


Figure 4 Frequent modes of static text in the private sector

4.3.2 Analysis of modes in the static text

Among the 50 modes and submodes, the private sector was more active in prioritizing a larger more number of modes and their combinations, i.e., almost 32 which signify campus sustainability themes.

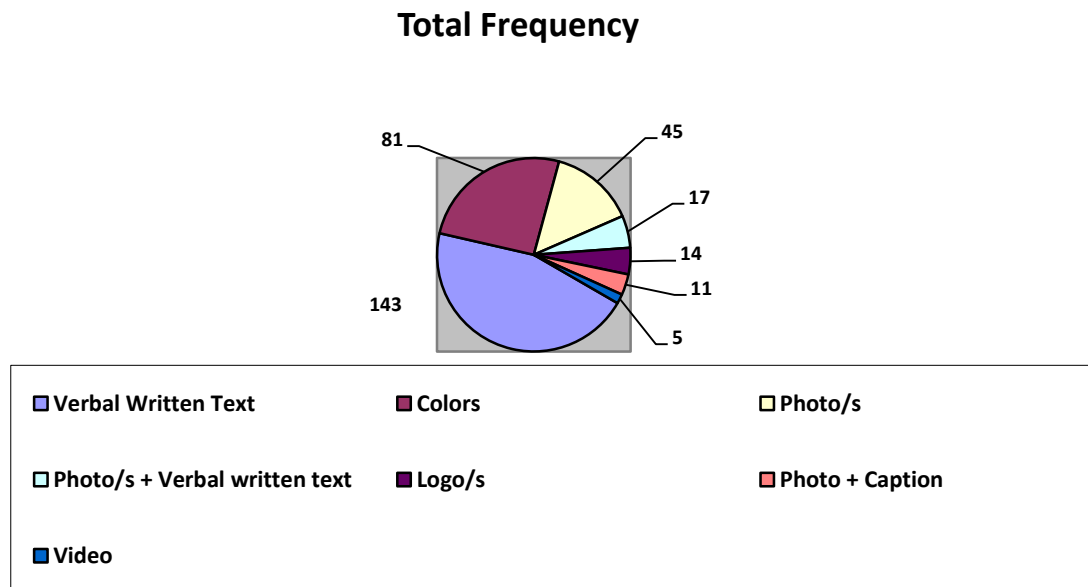


Figure 5 Total frequency of both sectors in the static text

The mode of a *‘verbal written text’* was utilized in the highest form, as this visual in different forms was the choice of most of the universities in both sectors to communicate the matters of campus sustainability. This mode brings clarity, authenticity, and formality to the verbal themes, and the public sector was found to be more prone to using it than the private sector.

‘Color/s’ were also the most frequently employed modes in the private sector than in the public sector. They are subtle but attractive submodes to communicate sustainability themes, as they are usually part of other modes and their combinations and are usually used purposefully to illustrate and signify certain content of the text.

A visual in the form of pictures, photos, or maps combined with verbal written text was a common mode and was utilized almost equally in both sectors, as this mode is easy to communicate and also helps in comprehending the message. This mode is time- and space-efficient, but it may, sometimes, not be fully understood unless carefully crafted.

‘Photo+ caption’ was also favored more as it is brief, precise, and time saving in terms of composing the message and getting it completely on the receiver’s end. This visual with different variations was preferred mostly by the private sector.

Two universities used virtual tours to get an idea of their location, architecture, and ecology. Often, universities choose to show their campus sustainability tours. The virtual tours of universities were also found, but scarcely on Pakistani university websites. Studies have shown its significance, which is

“In 2014 and 2015, a gray literature search of university websites revealed that more than 60 universities in the USA utilize campus sustainability tours to educate and illustrate sustainable aspects of campus...These tours can expose the “hidden curriculum” of value messages represented by the physical campus. In turn, tours can educate the campus population through hands-on, place-based learning and support the formal teachings of environmental sustainability presented by the university” (Orr, 1996; Cotton, Winter, & Bailey, 2013 as cited in Trahan, North, Gripshover, & Huss, 2017, p.909).

But a detailed view of sustainability matters was not shown in the virtual tours of Pakistani universities, and this needs further attention. Kress & van Leeuwen's (2001) conception of modes as abstract meaning-making resources generates a system of meanings that are not bound to any one material means of communication. For example, language can manifest as speech or writing, and close shots can materialise in various visual forms such as still images, moving images, photographs, or paintings. They function as designing resources for semiotic themes, events, or artifacts.(Van Leeuwen, *Multimodality*, 2011,2015, p. 674).

4.3.3 Modes in the Dynamic text

The modes, submodes and their various combinations found in the dynamic text of the websites and their frequency details in the private and public sectors are described below.

4.3.3.1 Nature and meaning of some sub modes

In the dynamic text, i.e., videos, the plural form of modes, e.g., 'images', etc., were not considered a separate type of combination of modes as the text was already moving and the plurality of visuals was not easily discernible in the video text. Still, they have been

counted as one category to analyze the frequency. The photos are actually still photos in the videos. The dynamic photos of videos will be termed ‘pictures’ as they are defined as the main submode of the main modes of any movie, documentary, or video.

Some of the modes were repeated in the form of different combinations of submodes, which reflect different visual effects by creating and influencing various signifiers that act broadly as frames. This is important in multimodal analysis, as

“Multimodal analysis has two main concerns: investigating the similarities and differences between different semiotic modes; and studying how different semiotic modes are integrated into multimodal texts and communicative events. Both require attending to the semiotic resources and their communicative potential, as well as to the way they are taken up in concrete settings. In other words, multimodal analysis is concerned with structure as well as agency, and needs to pay close attention to their mutual influence on each other” (Van Leeuwen, *Multimodality*, 2011,2015, p. 673).

The meaning in which these submodes explored has been termed as the following in the current study:

- i. ‘*Audio*’ was the mode which consisted of instances like background music or the music to fill pauses in the background commentary and instrumentals of famous patriotic song with the same visuals in the videos.
- ii. ‘*Audio+ pictures*’ was the mode which conjoined background music with a quick succession of photos coming one after the other.
- iii. ‘*Verbal written text*’ was the mode with colored font of captions.
- iv. ‘*Background commentary/verbal oral text*’ with random visuals which were not exactly related to the content or topic of the current verbal commentary running along with it.
- v. *Photos* mentioned mean ‘photos’ in the still form, whereas ‘moving photos’ are termed as ‘picture’ in the analysis of modes and submodes.

The submode of '*oral interview*' was further manifested in some of the shots in some university website videos in various combinations of its submodes, i.e., *picture + verbal oral text (oral interview)*; *picture(s)+ background commentary/verbal oral text (oral interview)*; *picture+ +captions+ verbal oral text (oral interview)*.

Background commentary/ verbal oral text are the random visuals with commentary. 'vector buttons/pointers for site navigation of video' were presented as a replacement for still text maps/ icons.

The following is a list of modes found in the videos in the descending order of their frequency.

1. logo
2. pictogram
3. color
4. map
5. picture
6. photo
7. photos
8. verbal written text
9. audio (music/sound)
10. audio+ pictures
11. pictures+ captions
12. picture+ captions
13. pictures+ caption
14. picture+ caption
15. picture+ verbal written text
16. logo+ captions
17. background commentary/ verbal oral text
18. picture+ background commentary/ verbal oral text
19. picture+ verbal oral text (oral interview)
20. picture+ captions+ verbal oral text (oral interview)
21. contact links

22. social media link
23. language (Arabic)
24. language (Urdu)
25. vector buttons /pointers for site navigation (icons/map)
26. icons

The following figure shows the percentage of the most frequent modes in the list of the dynamic text.

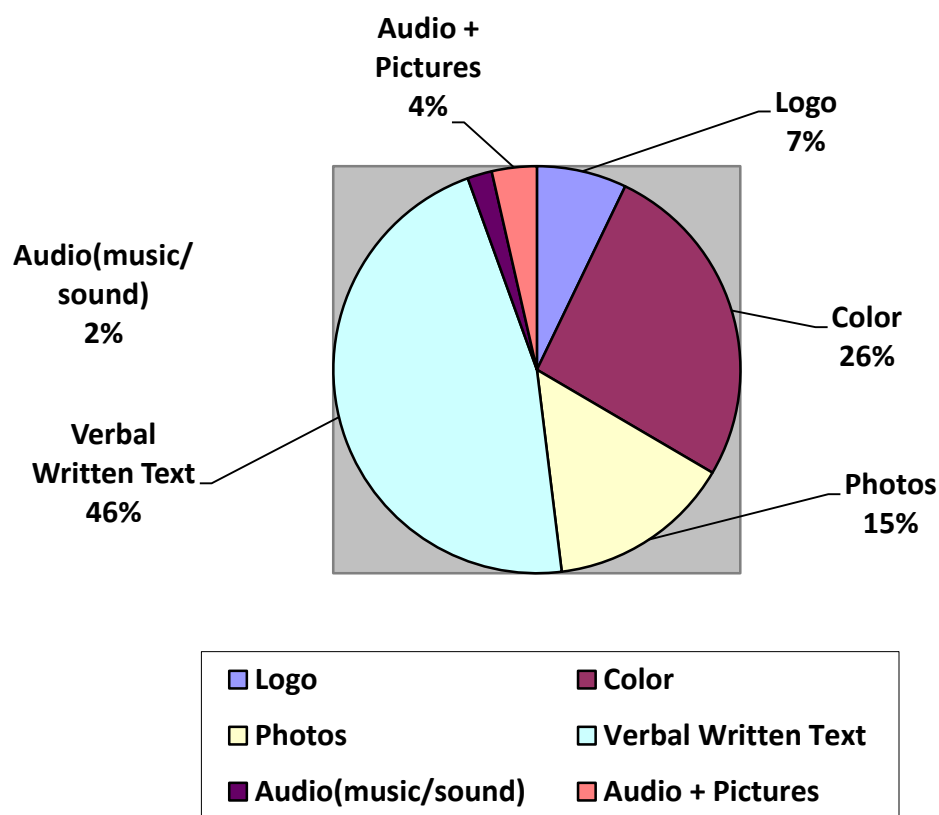


Figure 6 Frequently displayed modes in the dynamic text

Visual commentary and captions can make the content more engaging and accessible to a wider audience.

The following graph shows the most frequent modes and their combinations in the dynamic text of the websites through a comparison of the public and private sectors.

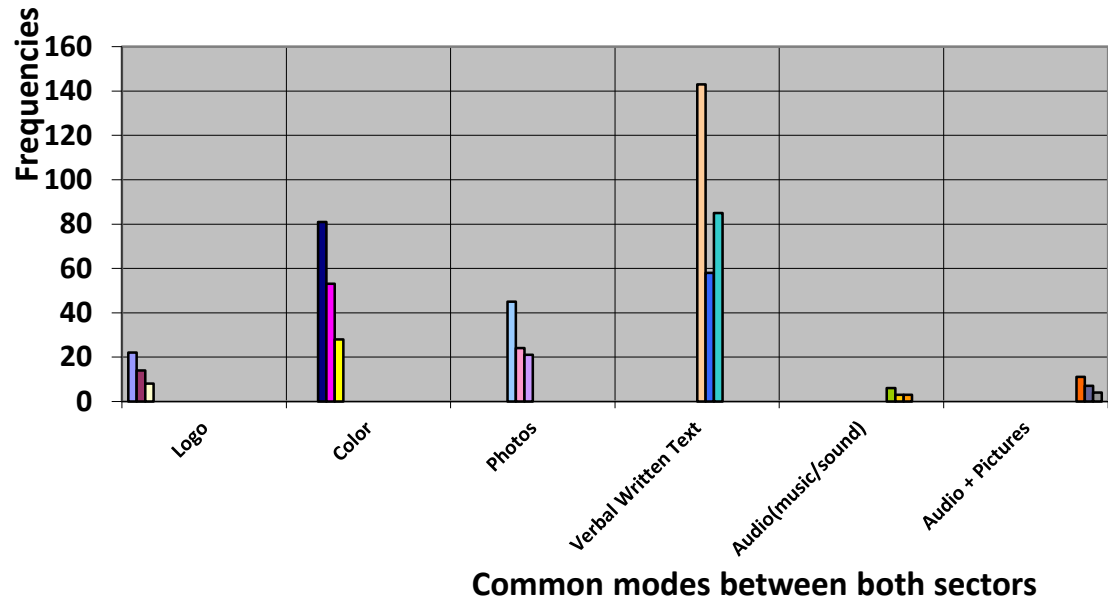


Figure 7 Common modes between both sectors in the Dynamic text

From the above figure, it can be deduced that verbal written text was the most favourite mode of even the dynamic text of both sectors. Avoiding purely visual mediums without accompanying text ensures that the content is not just visually appealing but remains informative, and important sustainability messages are not diluted by relying solely on images. Also, the mode of colors and photos have a common influence on both sectors in this type of text on the websites. The usage of audio+pictures commonly in greater frequency shows the affordance of this mode almost equally utilized by both sectors.

4.3.3.2 Frequency-wise analysis of Visual mode of videos

Numerous identity categories can be communicated through both verbal and visual means. However, not every category lends itself to expression in every mode. The manner in which identical categories are conveyed in diverse modes introduces distinctions and contributes additional layers of meaning and values, as articulated by Van Leeuwen in "Multimodality" (p. 671). This has been kept in mind while outlining different modes in different sectors.

The table given below illustrates the different levels of frequency of sub-modes used in the videos displayed by the public and private sector universities.

Table 4.3 **Table of sector-wise frequency of modes in videos**

Sr.#	Modes	Frequency in Public Universities	Frequency in Private Universities	Total Frequency in both sectors	Total frequency of similar modes
1.	pictures+ captions	2	6	8	60
2.	picture+ captions	3	22	25	
3.	pictures+ caption	5	9	14	
4.	picture+ caption	5	8	13	
5.	background commentary/ verbal oral text	15	8	23	
6.	picture+ verbal oral text (oral interview)	7	9	16	
7.	logo	5	8	13	
8.	logo+ captions	0	1	1	
9.	color	5	4	9	

10.	picture	6	2	8	
11.	picture+ background commentary/ verbal oral text	2	4	6	
12.	photo	1	2	3	05
13.	photos	1	1	2	
14.	language (Arabic)	1	1	2	03
15.	language (Urdu)	0	1	1	
16.	verbal written text	0	3	3	
17.	map	1	1	2	
18.	audio (music/sound)	2	0	2	
19.	audio+ pictures	2	0	2	
20.	picture+ captions+ verbal oral text (oral interview)	1	0	1	
21.	pictogram	0	1	1	
22.	contact links	1	0	1	
23.	social media link	1	0	1	
24.	Picture+ verbal written text	0	1	1	
25.	vector buttons /pointers for site navigation (icons/ map)	1	0	1	

26. icons	1	0	1
27. slideshow (ppt)	1	0	0

4.3.4 Comparative Analysis of the Modes in Dynamic Text (sector wise)

The following figure shows the percentage of the most frequent modes in the public and private sector discourse of dynamic text.

Frequency in Public Universities

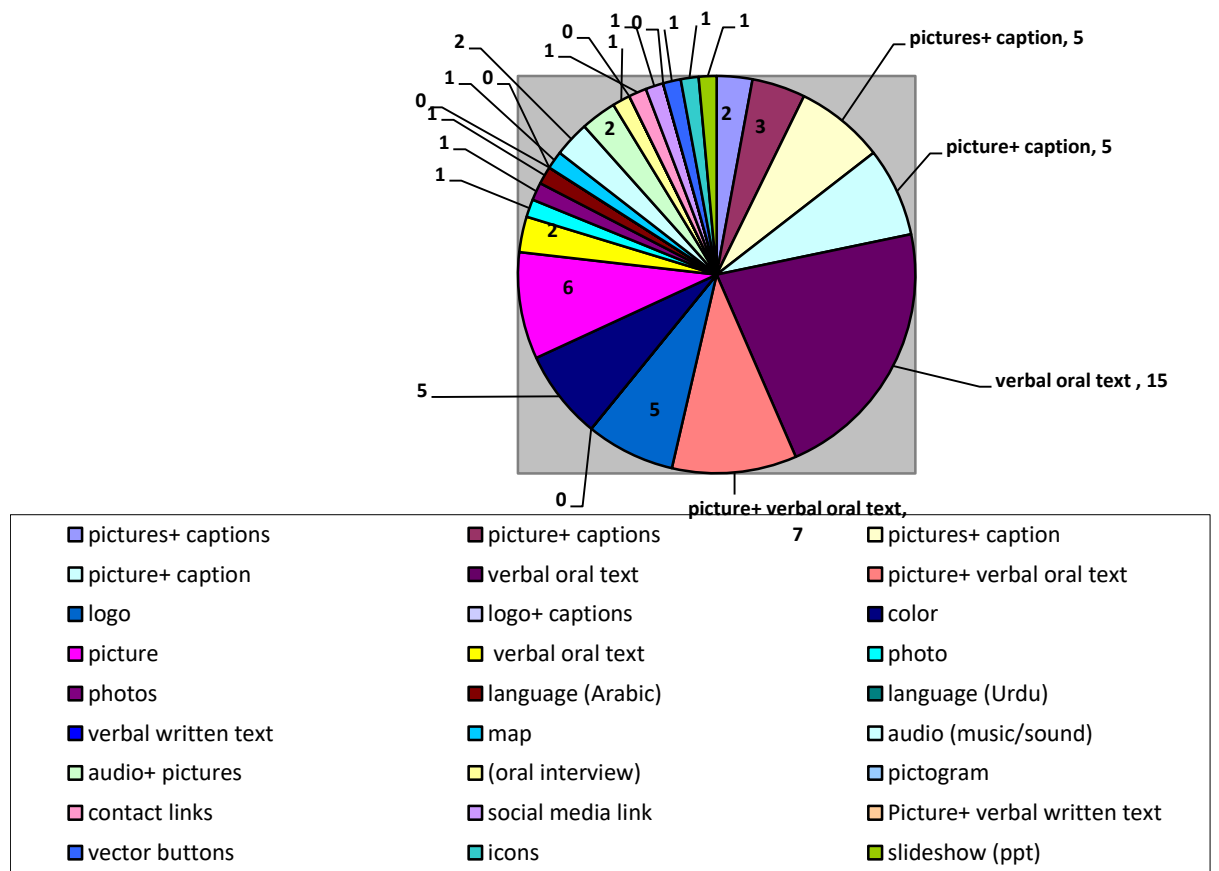


Figure 8 Frequency of modes in the dynamic text (public sector)

Overall, the mode of *'picture with caption'*, in similar variations of plural or singular form of modes, was used the most, i.e., total 60 times, for signifying the different activities and information about the university. In the private sector, it was used comparatively more than in the public sector as highlighted in this table. Combining audio, visual, and written text can cater to different learning preferences and provide a more comprehensive understanding. Written text can help clarify and reinforce spoken information so that the key messages are clearly communicated. Frequent use of diverse modes suggests a more innovative and flexible approach to communication.

The sub mode of *'picture+ captions'* was the most frequent one, i.e., 25 times by the 12 Pakistani universities of both the public and private sectors. It was used in different combinations as plural and singular forms of one or both of the submodes, i.e., the most commonly used in these forms was the submode combination of *'pictures'* and a *'caption'* while the sub mode of *'picture with more than a caption'* was in nearly equal frequency too. The other forms of combinations of this sub mode were also prevalent in the discourse as frequently used sub modes. The combination of audio, visual, and written modes in a text can cater to a diverse audience and ensure that the main themes are conveyed clearly and effectively. The private universities used them more than the public ones.

Frequency in Private Universities

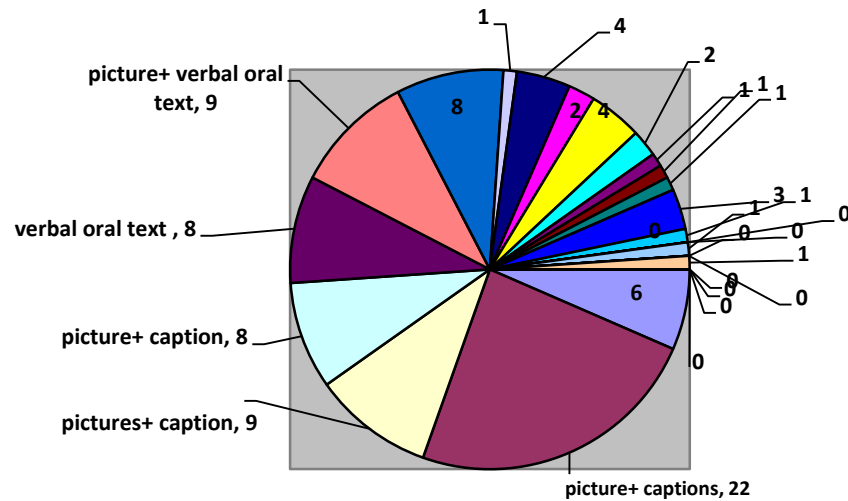


Figure 9 Frequency of modes in the dynamic text (private sector)

The second most used submode was the *'background commentary/verbal oral text'* used by the public universities, i.e., 15 times while it was used once in conjunction with a picture as 6 times in total. Over-reliance on written text might not be as effective for audiences with visual impairments or those who prefer purely auditory content. The use of visual-based commentary and interviews makes the content more relatable, and engaging that does result in potentially attracting more viewers and stakeholders. On the contrary, the lack of detailed written content in videos might result in a superficial understanding of the topics covered.

Another mode closer in frequency to this one was found to be *'picture+ verbal oral text (oral interview)'* i.e. 16 times used in total where it was used a bit more in private universities than the public ones, and the comparative frequency in both sectors was nearly equal. Oral interviews are significant in providing personal insights and testimonials. This

dimension of this mode adds a human element to the sustainability discourse. Contrarily, this mode may lack the depth, detail, and recording potential that written texts provide to present the ideas.

The sub-mode of a *'logo'* was utilized in a bit lesser frequency than the above-mentioned higher frequency modes, i.e., 13 times in total but found more in the private sector i.e. 8 times as compared to 5 times in the public sector.

The next most used submode were various *'colors'* symbolizing different aspects of sustainability at the campuses in the total frequency noted as 9 times, but as color is present in every visual, the actual frequency could make it up as the most highly frequent submode present in almost equal frequency in both sectors.

A *'picture'* as a submode was used 8 times in total in the videos on the websites of Pakistani universities, where it was utilized more by the public universities than the private universities.

'Photos' were visual submodes, used individually as well as in plural form, 5 times in total in both sectors, used almost equally in both the sectors, while more than one photo was used 2 times in total as in equal frequency in both the sectors.

'Language' as a submode in terms of languages other than English was utilized in the videos 3 times in total out of which the Arabic language was utilized 2 times equally in both the sectors and Urdu language was used once in the private sector only.

The mode of only *'verbal written text'* as a visual in the videos was only utilized as 3 times in the private sector. Some of the modes listed were used very less by the university websites. The *'verbal written text'* only was used by the private sector only thrice in their video discourse.

The mode in the videos that was only public sector specific was *'Audio with pictures'* which was employed 2 times in the public sector only. The *'contact links'* and the *'social media links'* were highlighted on the public sector websites only.

The mode that was only private sector specific was *'verbal written text'* utilized thrice. The sub modes that were used once in the private sector only were: *a pictogram; picture+ verbal written text; logo+ captions; picture+ Background commentary/verbal*

oral text while the sub modes used in only a public university video were: '*picture+ captions+ verbal oral text (oral interview)*' and '*vector buttons/ pointers for site navigation (icons/map)*'.

The modes which had more frequency in the public sector were: *Audio; Background commentary/ verbal oral text (oral interview)*.

The modes which had more frequency in the private sector were: *picture(s) + caption(s); picture + Background commentary/verbal oral text*. Relying heavily on visual elements might lead to inconsistencies in message delivery if not well-coordinated.

The total frequency of different modes used to highlight campus sustainability themes was more in private universities than in the public universities used in their video discourse. This shows that it was a bit more used in the private sector, but there is not a great difference of frequency in both of these sectors.

4.3.5 Comparison of modes in static and dynamic text

Comparing the static text to the dynamic text, the modes, and their combinations are slightly different from each other despite several common signifiers. Their number in the videos was limited to 26 different types, while it was 50 in the still text. This shows a variety of modes and their combinations were presented in the still text as compared to the dynamic text, i.e., videos which allow lesser affordance for combining different modes but is more direct and interactive even with limited potential. (Forceville, 2011) reviewed Kress's (2010) discussion on the contemporary multimodal social semiotic approach to communication and found that the two significant modes dominant in every visual were language and pictures. There are particular constraints or affordances of each mode and they are usually irreplaceable (p. 185). Concrete meanings can be conveyed through the visual mode but it is deficient at expressing abstract concepts. Therefore, it is important to put combinations of verbal modes with nonverbal modes to express the meaning in the complete sense.

In static text, the most highly frequent mode was the 'verbal written text' used more in the public sector. This may also be due to the affordance of videos, which limit the frequent use of verbal written text. In its place, the sub-mode of '*background commentary/*

verbal oral text' coming up with random pictures that are not related to the content or themes of the verbal commentary in oral medium was one of the major submodes communicating the different themes of campus sustainability and rated as the second most frequent mode. This was absent in the static text and it is usually replaced by either the main mode of *'verbal written text'* or the *'captions'* conjoined with different visuals.

The second highest frequency was that of the submode of 'colors' as an adjoined mode in the private sector more than the public one. In dynamic text, colors do play a role in signifying different sub-themes, but they do not come out as exquisitely because they are part of moving photos or pictures, which make it colorful but not defining enough to signify the themes.

The mode of *'photo/s'* was the third most highly frequent mode in static text used more in the private sector and used almost equally in both sectors of dynamic text while the moving photos, i.e., a *'picture'* as a submode was presented more in the public sector than the private one. This shows that it was the most preferred choice in both still and dynamic text by both the public and private sectors.

'Logo/s' were also the popular common submodes found in the private sector of both types of textual data communicating different signifiers of campus sustainability discourse.

'Photo/s + Verbal written text' was the submode found in the public sector while the sub mode replacing this was the most used in the private sector videos i.e. 'picture+ verbal oral text (oral interview)'. It might be due to nature of the dynamic text that such combinations of modes of written text were not found very often in the videos of any sector.

'Photos+ caption' was a prominent mode of static text in the private sector. In video, the sub-mode of 'picture' with captions in various combinations was used the most in the private sector. This space-saving and easily comprehensible mode was found more frequently in the private sector in the still text, while the public sector used it more in the videos. It is considered to be a very useful mode, as "In the case of 'illustration', the text is primary, and the image interprets it in a particular context and for a particular audience.

In the Middle Ages, Barthes said, ‘illustration’ was the dominant text-image relation (Van Leeuwen, *Multimodality*, 2011,2015, p. 674).

The languages other than English i.e. Urdu and Arabic were also the sub-modes used to communicate the themes in the dynamic text. Arabic was used in both sectors, while Urdu language was used in only the private sector. Urdu language as a mode in the static text was utilized in private universities only, while Arabic was utilized more in the public sector.

‘*Video*’ as an icon on the still text was mentioned in the private sector only, while a video portal’ on which different videos are uploaded was found to be contributing in the public sector only. In the dynamic text, an on screen ‘*oral interview*’ was the mode used with the pictures, background commentary/ verbal oral text, and captions were a different mode as compared to the static text.

The only mode in the static text that was public sector specific was of ‘*photos on the slide show+ captions*’. The mode in the videos that was only public sector specific were ‘*Audio with pictures*’ and the ‘*contact links*’ and the ‘*social media links*’; ‘*picture+ captions+ verbal oral text (oral interview)*’ and ‘*vector buttons/ pointers for site navigation (icons/map)*’.

The modes in the static text that were private sector specific: *Photo+ picture +caption, small photo icons+ verbal written text* etc. while these sub modes in the dynamic text in the private sector appeared as a combined sub mode i.e. ‘*picture+ verbal written text*’.

The prominent modes in the static text that were found in both sectors in equal numbers: *map, banner, video/s, Photo+ verbal written text, etc.*

The prominent modes in the static text that were found in the private sector more: *Photos + captions, verbal written text+ photo, Ppt slide +caption* etc. while these sub modes in the dynamic text commonly as similar sub mode in the form of ‘*picture(s) + caption(s)*’ and ‘*picture + Background commentary/verbal oral text*’.

The prominent modes in the static text that were found in the public sector in a more frequency were: *slide show, icons, sub links, photo/s on the slide show, pictogram,*

etc., while there were different prominent modes in the dynamic text that appeared in the public sector more, i.e., *Audio; Background commentary/verbal oral text (oral interview)*.

The submodes that were only video specific were: *'visual accompanying the background commentary/verbal oral text (oral interview)'*; *'background commentary/verbal oral text'*; *Audio*; *'Audio + picture'*. These were absent in the still text.

The private sector videos were more prone towards visual based commentary, captions and oral interviews while the public sector videos were disposed to *'Audio + Visual'* and *'verbal written text'* mediums. The visual carrying verbal written text only and the use of only pictures were not used in any one of the videos. The total frequency of different modes used to highlight campus sustainability themes was higher in private universities than in public universities. High frequency does not always equate to high quality; the effectiveness of the communication also depends on how well the content is produced and delivered. Too much content could overwhelm the audience or lead to diminishing effects, and there is a risk of over-saturation.

4.4 Linguistic Analysis of Verbal Signifiers

An analysis of only highly frequent key words of sustainability and their relevant themes has been given as follows.

4.4.1 Verbal Analysis of Static Text

Through the Ant Conc. software, separate word lists of public and private universities' textual data were prepared. These word lists were then cleaned by deleting functional lexical items and irrelevant words, and only those content words were saved that seemed to have a direct or indirect relation to the three major sustainability themes, their subthemes, and buzz/key words of campus sustainability discourse. The following steps were taken for analyzing the collected data:

1. All the verbal and textual data was uploaded into the software. Two separate texts from the public and private sectors were uploaded separately.

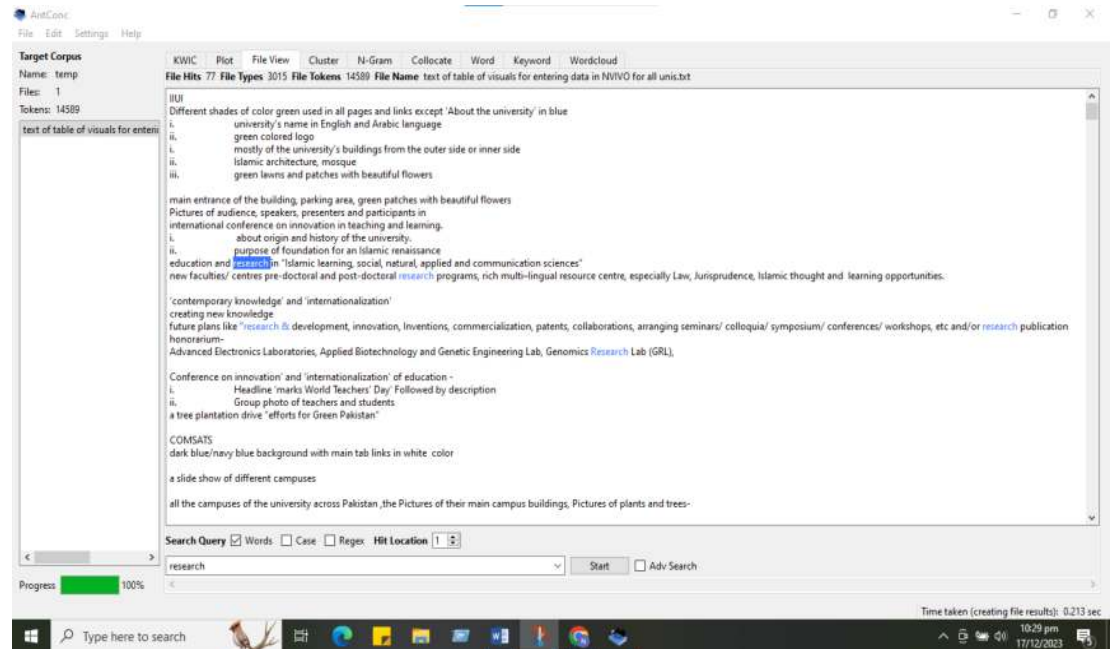


Figure 10 Screen shot of AntConc. Software used for locating the key words related to campus sustainability

2. First, the key terms or concepts were detected as the most frequently occurring words or phrases.

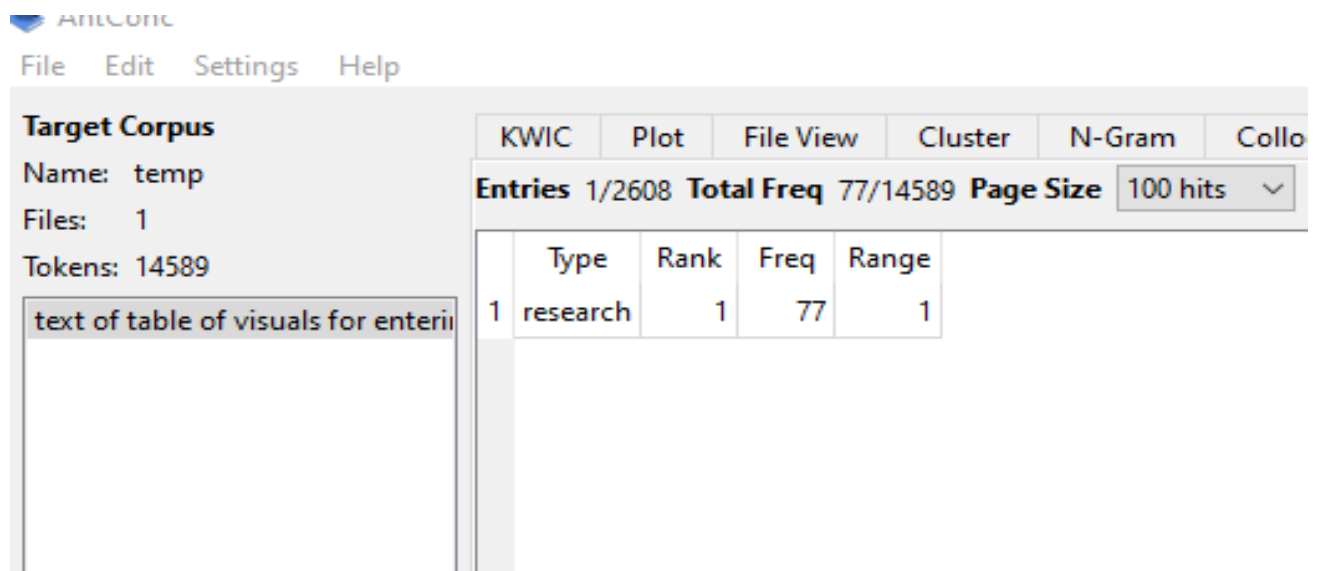


Figure 11 Finding the frequency of particular keywords through the software

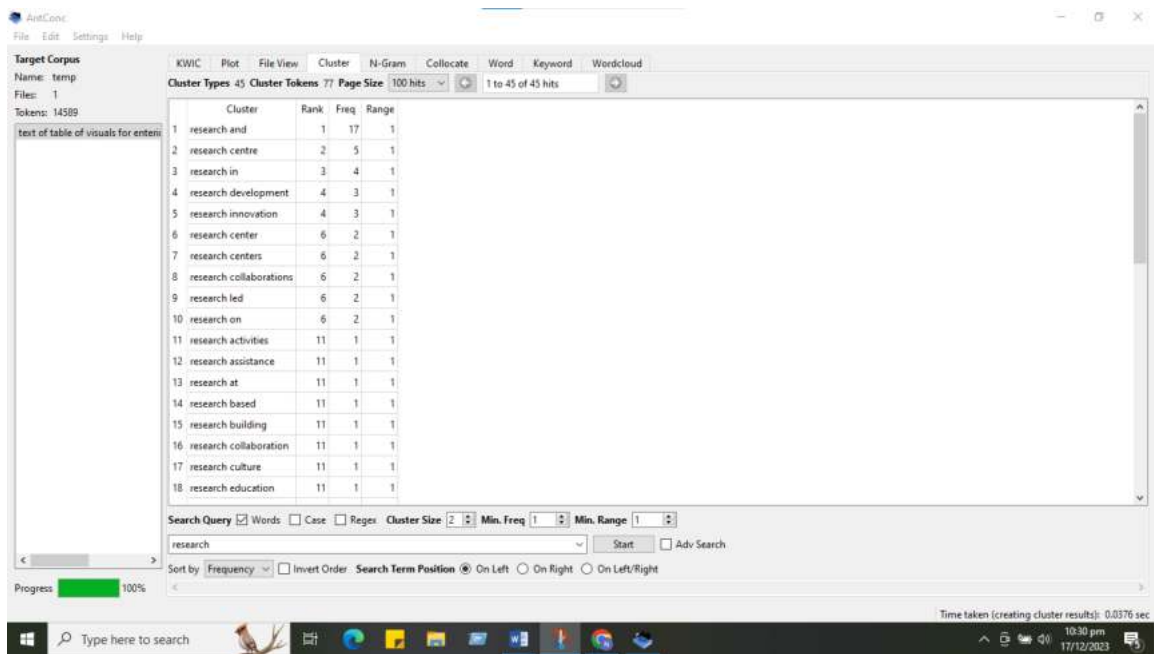


Figure 12 Generation of wordlists through the software

3. After this, the frequencies of selected words were examined and again two new lists for public and private sector were prepared.

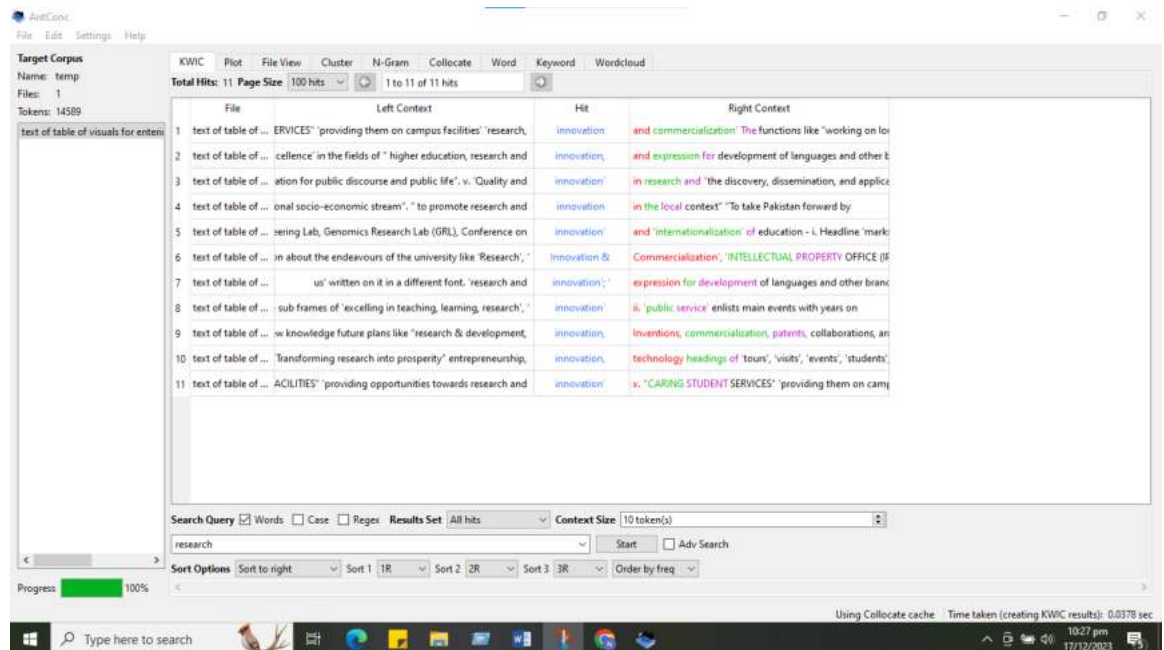


Figure 13 Finding the verbal context of the most frequent key words through software

The criteria for selecting frames for further exploration and discussion were:

- i) top five highest frequency words common in public and private universities,
- ii) word forms of the concept of lexical item ‘sustainability’ and
- iii) any lexical reference to the three major themes of sustainability as mentioned in theoretical/ conceptual framework.

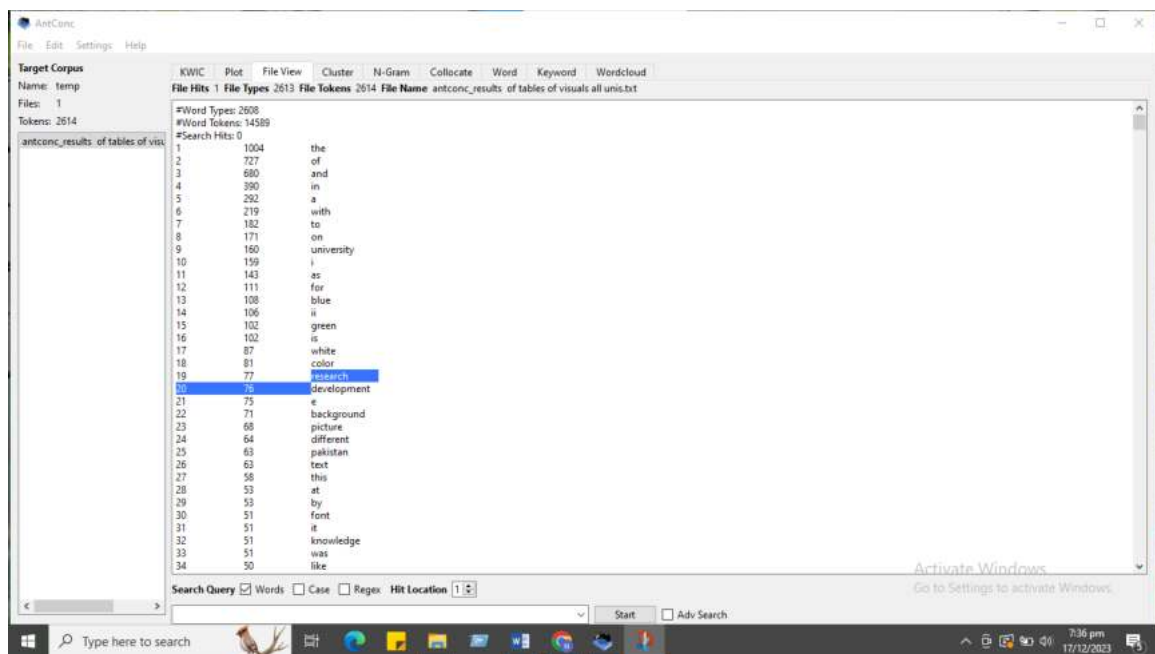


Figure 14 Cleaning the word list by removing the functional words

4. Out of the total list of 3170 words, the top five common highest frequency words were chosen as frames to be analyzed as it is impossible to explain the contextual framing of all these words in the given word limit of the thesis. Secondly, choosing the highest frequency words in relation to the use of sustainability related themes is significant because the higher a lexical item is used in the text, the more probability is there to trace the preference of particular frames a university chooses to adopt to present its efforts of campus sustainability.

```

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#Word Types: 3180
#Word Tokens: 16755
#Search Hits: 0
1      911    and
2      871    the
3      707    of
4      483    to
5      349    in
6      270    xb
7      230    a
8      196    university
9      187    research
10     174    for
11     156    with
12     146    x
13     138    xa
14     129    is
15     116    on
16     109    as
17     103    that
18     96     by
19     93     pakistan
20     91     development
21     90     education
22     89     at
23     87     students
24     75     are
25     62     an
26     62     international

```

Figure 15 Screen Shot of some part of the word list generated by the software

The following were the lexical items representing the overall concept of ‘sustainability’.

1. sustenance
2. sustainability
3. sustain
4. sustainable
5. SDGs
6. sustained
7. sustenance
8. sustaining

4.4.1.1 Verbal Frames/ Signifiers of the Static Text

Following are the two separate lists of word frames related to the three themes of campus sustainability and the overall campus sustainability discourse which were finalized for further focus.

Table 4.4: List of Verbal Frames in the Public sector

Word token	frequency	word	related theme
1) 8	93	research	Sustainability sciences (SS)
2) 18	45	development	Sustainability sciences
3) 22	39	international	Sustainability sciences
4) 24	35	knowledge	Sustainability sciences
5) 49	21	environment	Greening (G)
6) 86	14	sustainable	over all sustainability theme
7) 89	13	green	Greening
8) 242	6	sustainability	over all sustainability theme
9) 336	4	developed	Sustainability Sciences
10) 337	4	developing	Sustainability Sciences
11) 345	4	environments	Greening
12) 759	2	internationalization	Sustainability sciences
13) 760	2	internationally	Sustainability sciences
14) 891	2	sustain	overall sustainability theme
15) 1451	1	greening	Greening
16) 1619	1	less greenhouse	Greening
17) 1726	1	international	Sustainability sciences
18) 1314	1	environmentally	Greening
19) 2046	1	sustenance	overall sustainability theme

The following table shows the frequency of the top five frequent verbal signifiers in the selected text of the private sector universities.

Table 4.5: List of Verbal Frames in the Private Sector

Word token	frequency	Word	related theme
1 9 96		research	Sustainability sciences
2 19 46		development	Sustainability sciences
3 33 25		environment	Greening
4 35 23		international	Sustainability sciences
5 36 23		knowledge	Sustainability sciences
6 47 19		sustainable	overall sustainability theme
7 149 07		green	Greening
8 177 06		environmental	Greening
9 206 06		SDGs	overall sustainability theme
10 417 03		greenhouses	Greening
11 800 02		sustainability	overall sustainability theme
12 801 02		sustained	overall sustainability theme
13 1704 01		research	Sustainability sciences
14 1707 01		researches	Sustainability sciences
15 1834 01		sustain	overall sustainability theme
16 1835 01		sustaining	overall sustainability theme
17 1836 01		sustenance	overall sustainability theme

Following is the diagrammatic representation of these categories in the private and public sector w.r.t. the lexical items related to the campus sustainability themes that were delimited .

Table 4.6: Selected Verbal Frames in Both Sectors

overall concept of 'sustainability'		
Word list category		
Sustainable (public & private)		
Sustainability (public & private)		
Sustain (public & private)		
SDGs (private)		
Sustained (private)		
sustaining (private)		
sustenance (public & private)		
Campus Sustainability themes		
Greening	Sustainability Sciences	Education for Sustainable Development
Word list category	Word list category	Word list category
Environment (public & private)	research (public & private)	
environments (public)	researches (private)	
environmental (private)	development (public & private)	
environmentally (public)		

Green (public & private)	knowledge (public & private)	
greening (public)	international (public & private)	
greenhouses (private)	Internationalization (public)	
less greenhouse (public)	Internationally (public)	

5. Now, these selected words were focused one by one as ‘frames’ in the text, and their contexts were noted with their locations. Examples of a word as a verbal signifier with similar context were collected, and then the approximate frequency in the text was determined. That word was taken as a sub-frame of the main frames, i.e., the three themes of sustainability. In the end, all these contexts were summarized concerning the public and private sectors first within static and dynamic text separately, and then, common signifiers in both texts were pointed out.

6. The summarized contexts of common top-frequency words were then compared in terms of their differences and similarities in the public and private sectors of Pakistani universities. Their preferences were highlighted in terms of their relation to campus sustainability discourse themes. That is how framing has been explored in the selected text of the universities, which is one of the ways to trace

sustainability themes they prefer to incorporate in their campus sustainability

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#Word Types: 3180
 #Word Tokens: 16755
 #Search Hits: 0

1	911	and
2	871	the
3	707	of
4	483	to
5	349	in
6	270	xb
7	230	a
8	196	university
9	187	research
10	174	for
11	156	with
12	146	x
13	138	xa
14	129	is
15	116	on
16	109	as
17	103	that
18	96	by
19	93	pakistan
20	91	development
21	90	education
22	89	at
23	87	students
24	75	are
25	62	an
26	62	international
27	62	its
28	59	has
29	58	knowledge
30	57	faculty

discourse.

Figure 16 some of the prominent most frequent words

As the verbal text of static text had a greater frequency in the selected sample and there was a long list of verbal signifiers, the common signifiers in both the public and private sectors were then separated and listed. Among them, the top five verbal frames of static text in common to the verbal frames of videos have been analysed in the current study to

highlight the main focus of verbal discourse with respect to the corresponding themes on the websites of public and private sector universities of Pakistan.

The analysis presented below involves the overall summary of the table; frequencies of lexical items connoting sustainability theme; highest and least frequency item and their relation with major themes; lexical items and context of highest frequency and a comparison of contexts of public and private sector frames.

4.4.1.2 Analysis of Static Text Verbal Signifiers/ Frames

Framing is an intricate cognitive-linguistic process that is manifested through verbal and nonverbal signifiers to create meaning in the text. In terms of verbal framing,

“the text contains frames, which are manifested by the presence or absence of certain keywords, stock phrases, stereotyped images, sources of information, and sentences that provide thematically reinforcing clusters of facts or judgments. The frames that guide the receiver’s thinking and conclusion may or may not reflect the frames in the text and the framing intention of the communicator” (Entman R. , 1993, pp. 52-53).

The top most frequent verbal signifiers in the static text of websites that act as frames of campus sustainability discourse have been presented as follows. Their respective frequencies, in both sectors, have also been highlighted and compared.

Table 4.7: Frequencies of static text verbal frames (sector-wise)

Sr.#	Verbal Signifier	Total frequency	Sector
1.	Research/es	187	Public: 93 Private: 96
2.	development	91	Public: 45 Private: 46

3.	international/ internationalization/ internationally	67	Public: 44 Private: 23
4.	Environment/s/ environmentally/ environmental	59	Public: 28 Private: 31
5.	knowledge	58	Public: 35 Private: 23
6.	Sustainable /sustainability /sustain/ed/ sustenance/ sustaining	49	Public: 23 Private: 26
7.	green/ less greenhouse/ greening/ greenhouses	25	Public: 15 Private: 10
8.	SDGs	06	Private: 6

In terms of SDGs, the salient verbal frames shown in the table point towards more focus on SDG 4 (quality education).

The following chart shows the total frequency of the most frequent verbal frames in the static text.

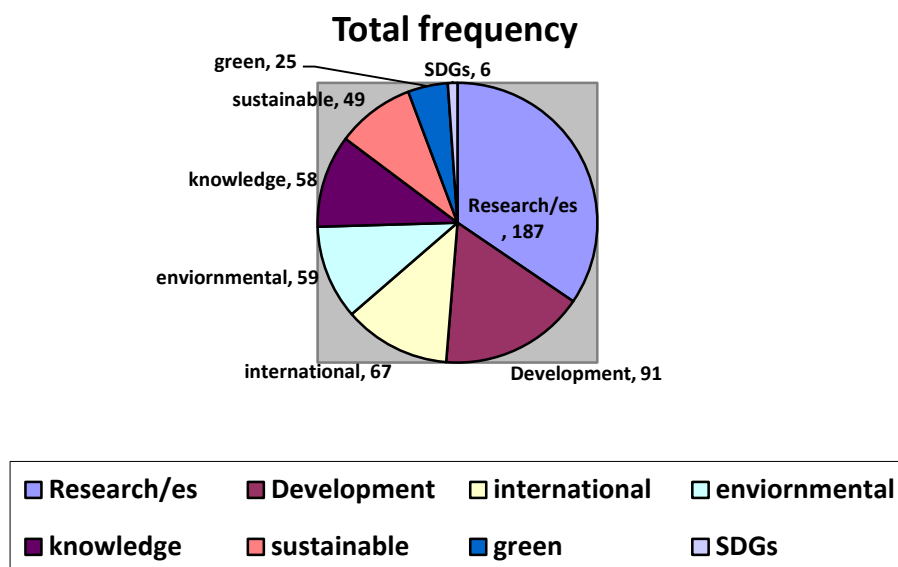


Figure 17 *Most frequent verbal frames in the static text*

4.4.1.3 Comparison of Static Text Verbal Frames Sector-wise

The most frequent word used in the still text is ‘*Research/es*’ i.e., 187 times. The private sector was a bit ahead in terms of frequency stats but it was very close to public sector frequency. ‘*Development*’ was the second most used frame i.e., 91 times which had nearly equal frequency in both the public and private sector as a difference of one does not show that the use was unequal. ‘*International*’ came third in terms of frequency 67 times where the public sector took precedence over the private sector. ‘*Environment/s/environmentally/environmental*’ was the fourth one i.e., 59 times where the private sector was slightly more active in terms of frequency. With just a difference of one, ‘*Knowledge*’ was the fifth most frequent frame more purported in the public sector than the private one. ‘*Sustainable/ sustainability/ sustain/ed/ sustenance/ sustaining*’ occurred 49 times in total where the private sector was slightly ahead of the public. ‘*Green/ less greenhouse/ greening/ greenhouses*’ were the lexical frames displayed 25 times where the public sector seems to be propagating it more in terms of frequency. ‘*SDGS*’ was mentioned 6 times by private sector only.

4.4.2 Linguistic Analysis of the Dynamic Text

An observation sheet of the most frequent verbal signifiers common to both sectors in the text has been attached as appendix VII (see pg. cccliv-cclx).

Pauwel's (2012) framework of multimodal text found on the websites highlights the verbal signifiers, and visual signifiers among other ones. The summary of verbal frames found to be the most frequent in the dynamic visual text is presented as follows.

Table 4.8: Frequency (in descending order) of verbal frames in the dynamic text

Sr. #	Verbal signifier	Total	Sector	University: frequency	Frequency	Theme
1.	Research	17	Public: 02 Private:03	i. NUST: 03 ii. AU:05 i. FAST- NUCES: 07 ii. IU : 01 iii. QUISIT :01	08 09	SS
2.	International	11	Public:03	i. NUML: 03 ii. AU: 03 iii. NUST: 05	11	SS
3.	Environment	09	Public: 02 Private:02	i. NUML: 01 ii. NUST : 03 i. UOL: 03 ii. FAST:02	04 05	G
4.	Knowledge	06	Public: 02 Private:01	i. NUML: 01 ii. AU: 02 i. FAST: 03	03 03	SS

5.	Development	03	Public: 01	i. AU: 01	01	Over all CSD/ SS
			Private:01	i. FAST- NUCES: 02	02	

4.4.2.1 Verbal frames of the dynamic text

The most frequent word used in the audio commentary or written captions in the videos was *'Research'*, i.e., 17 times. The frequency is nearly equal in the public and private sectors. *'International'* was the second most frequent but it was only found in 3 out of 6 public sector universities, i.e., 11 times. *'Environment'* was also prominent as third place in terms of frequency, as it is nearly equal in the private and public sectors.

'Knowledge' was the frame that had exactly the same frequency in the private and public sectors. *'Development'* was also indicated in the public and private sectors at nearly the same frequency.

The following graph shows the frequency level of the most frequent verbal frames in the static text of the private sector.

Static Private Frequencies

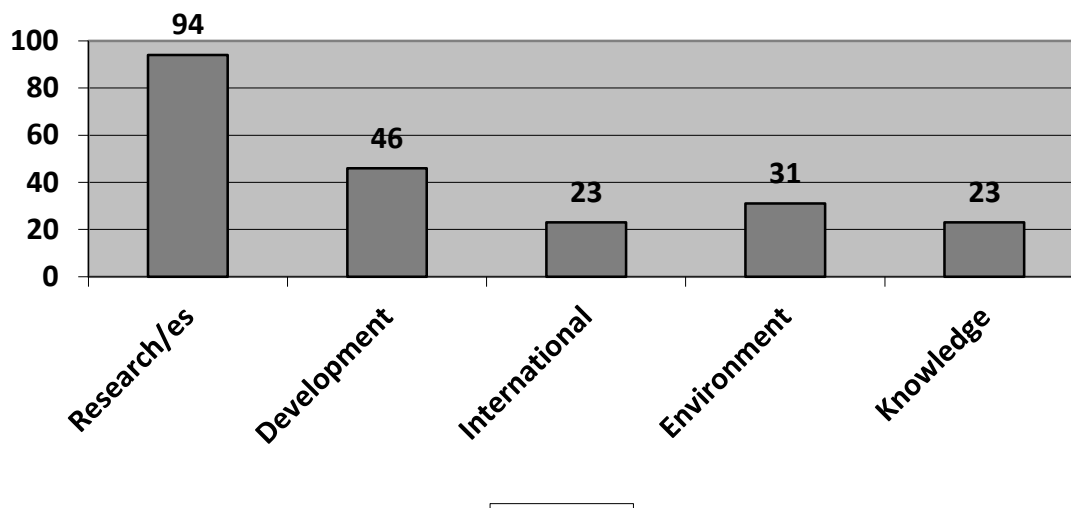


Figure 18 The most frequent verbal frames in the static text (private sector)

According to Kress, participants and contexts are significant to make meaning (Kress & Van Leeuwen, 1996; Hodge & Kress, 1988) in any institution. He considers the domains of the public and private sectors to be crucial variables for signifiers and modes used for the discourse in institutions. The same goes with the other institutions in the social ecology i.e. public and privately governed educational institutions. This academic and social setup of HEIs is not considered sustainable without the involvement of this cardinal variable of different sectors.

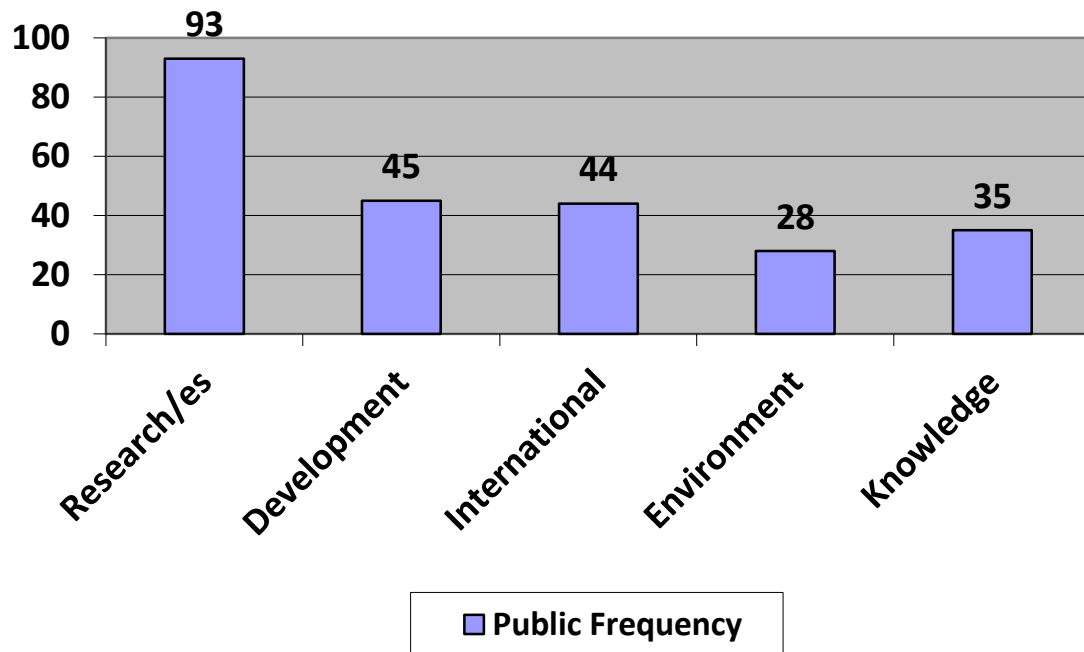


Figure 19 Frequency level of the most frequent verbal frames in the dynamic text (public sector)

In these common frames, the dominance of *research*, *development*, *international*, *knowledge* portrayed that the theme of ‘Sustainability Sciences’ was the dominant theme while the theme of ‘greening’ also was common in one frame. i.e. *environment*. The theme of ‘Education for Sustainability’ seems to be missing in the top five verbal frames of website discourse of videos.

4.4.3 Comparison of Common Static and Dynamic Verbal Frames

A comparison of the verbal signifiers of higher frequency common to both dynamic and static text with their sector-wise occurrence has been presented below.

Table 4.9: Comparison of Common Static and Dynamic Verbal Frames

Dynamic text				Static text			Theme
Sr. #	Verbal signifier in videos	Total frequency	Sector wise frequency	Verbal signifiers in static text	Total frequency	Sector wise Frequency	
1.	Research	17	Public: 08 Private: 09	Research/es	187	Public: 93 Private:94	SS
2.				Development	91	Public: 45 Private: 46	Over all CSD/ SS
3.	International	11	Public: 11	International/ internationalizat ion/ internationally	67	Public:44 Private: 23	SS
4.	Environment	09	Public: 04 Private: 05	Environment/s / environmentally /environmental	59	Public: 28 Private: 31	G
5.	Knowledge	06	Public: 03 Private: 03	Knowledge	58	Public: 35 Private:23	SS

6.	Development	09	Public: 05 Private: 04	Development	91	Public: 45 Private: 46	Over all CSD/ SS
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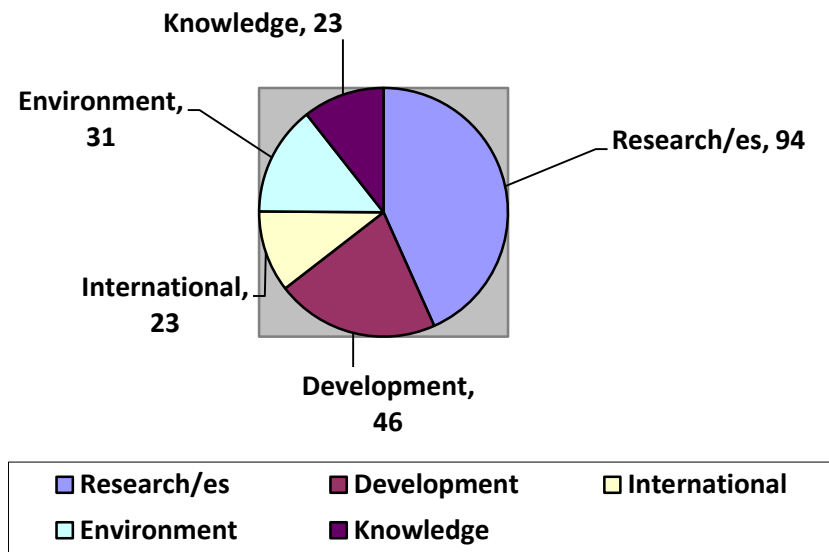


Figure 20 Frequency share of the most frequent verbal frames in the dynamic text (Private sector)

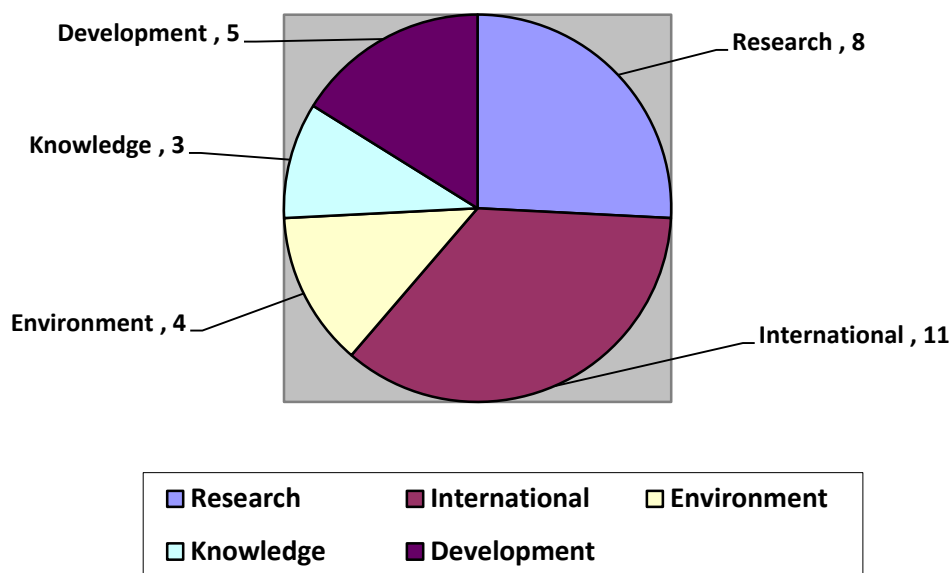


Figure 21 Frequency share of the most frequent verbal frames in the dynamic text (Public sector)

From the above table and figures, it is clear that there is a categorical difference in the frequencies of static and dynamic text. This was foreseen and is logically sound, as the sample sizes of both texts were not equal to each other. Still, an interesting thing to find out is that when the selected top frequent verbal frames of static text were compared with the same verbal frames of the videos, the hierarchy of frequencies came out as quite similar. From the top most in static text till the last one, the order of verbal frames was similar in the videos except for the frame of ‘development’. It was the second-highest in the still text, while it was the last one in the video text. This shows that the trends and preferences of the verbal text on the website were similar in any form of text. The themes of campus sustainability linked to these verbal frames were also indicative of the preference of the verbal discourse; e.g., the theme of ‘sustainability sciences’ of campus sustainability discourse is evident in the verbal signifier ‘Research’ as the most frequent word that is used to frame this theme. This seems like a good sign that both the public and private sectors are actively pursuing this in their discourse as their aim and vision to contribute towards sustainable development goals. Andrea Cornwall (2007) talks about the buzz words that have acquired the status of special jargon, catchwords, or phrases for a

certain type of discourse, and the above comparison shows the presence of these particular words that act as verbal frames in Pakistani context.

The theme of ‘Sustainability Sciences’ was overpowering in these verbal frames, as the majority of them were related to this theme. Only one out of 5 top frames was related to the theme of ‘greening’ while the theme of ‘Education for Sustainability’ did not fall into the first top five frequencies in the word list, and the main terms related to this theme had less than 10 times their frequency if they appeared in the list. One frame, i.e., ‘development’, is mainly related to ‘Sustainability Sciences’, but it depends sometimes on the context in which it is used. So, it is also a buzzword of ‘overall campus sustainability discourse’ which includes all these three themes. The private sector dominated the public sector frequency-wise in terms of the presentation of these themes in both types of text, with the exception of two frames. First, it was the verbal frame ‘international/internationalization’ in which the public sector advocated it more than the private sector in the still text, while in the videos, it was only the public sector that mentioned it. The second one was ‘knowledge’ in which the public sector dominated in the still text but was equal to the private sector in the verbal text of videos. Frames refer to the definition of a phenomenon or its problematization in a certain way. Though their interpretation is said to have an influence on the social and cultural context, they are primarily influenced by the basic underlying assumptions of a general discourse.

The above findings lead to the idea that there is a dearth of the discourse presenting the themes of ‘greening’ and ‘education for sustainability’ on the websites of Pakistani universities.

4.5 Observations of Static Visual Signifiers Common to both sectors

Visual spaces not only take the verbal mode but also the nonverbal mode into account. Even the written verbal medium can be safely called a visual mode as it has non-verbal aspects attached to it, and their frequent usage makes them visual signifiers of a specific type of discourse expressing different themes. This is an agreed-upon reality that “spoken language cannot be adequately understood without taking non-verbal communication into account; and that many forms of contemporary written language cannot

be adequately understood unless we look, not just at language, but also at images, layout, typography and colour” (Van Leeuwen, *Multimodality*, 2011,2015, p. 668).

Both types of text utilize different submodalities, and these modes have been represented in the form of different signifiers depending upon the choice of the agents that are being displayed on the websites. The static text on websites is comprised of all types of visual, i.e., non-verbal, along with verbal written text. The dynamic text is usually comprised of audios and videos with moving visuals, non-verbal, written, or oral verbal commentary, captions, recorded interviews, etc. From the sample, this written or oral verbal text was separated, and word lists have been prepared. Then, they were scrutinized to find the campus sustainability themes for the present study. The list was edited to include only the words that relate to these three themes and the overall concept of campus sustainability themes. Their frequency and context were then counted in the public and private sector universities, and then this was highlighted in the form of tables to analyse the presentation of various campus sustainability themes.

The observation sheet of the frequency table of common static visual signifiers (university wise) can be seen in the appendix V (p. cclxxviii- ccxcii). Given below is the total frequency of occurrences of the common signifiers of static visual text in both the private and public sectors.

Table 4.10: Frequency of common static visual (Nonverbal +verbal) signifiers/ frames sector wise w.r.t saliency

Sr.#	Signifiers	Private sector frequency	Public sector frequency	Total frequency in both sectors	Themes related
1.	Nature			144	G
i.	Greenery/ green patches/ green lawns/ plants and trees/ green areas	19	15	34	

ii.	Tree	11	11	22	
iii.	Clouds	02	05	07	
iv.	Mountains	0	24	24	
v.	Sky	04	04	08	
vi.	Sun	00	05	05	
vii.	Water	02	16	18	
viii.	Moon	00	02	02	
ix.	Star	02	02	04	
x.	Bird	00	01	01	
xi.	Eagle	00	01	01	
xii.	Ecosystem	00	04	04	
xiii.	Earth	00	03	03	
xiv.	Leaves	00	02	02	
xv.	Flowers	03	06	09	
2.	Color Blue/ Blue/ Blue font	66	41	107	G
3.	Architecture			89	G
i.	Building/s	48	19	67	
ii.	Entrance/ parking area	03	03	06	
iii.	View	07	09	16	

4.	White	70	18	88	G
5.	Color Green	27	17	44	G
6.	Color Black/Black/Blackish	30	05	35	G
7.	Activities	14	16	30	EFS
8.	Ranking /Category	23	05	28	EFS
9.	Color Yellow / Mustard	13	10	23	G
10.	Language	03	20	23	SS
11.	Faculty	07	14	21	EFS
12.	Seminar/s /conference/workshops	11	09	20	EFS
13.	Technology / students working on computer/ laptop/ networks	05	11	16	SS
14.	Book	08	07	15	SS
15.	Officials/ staff	03	10	13	EFS
16.	Color red/ red colored	09	03	12	G
17.	Plantation/ movement/green drive	01	10	11	G
18.	Color brown	08	02	10	G
19.	Convocation	06	04	10	EFS
20.	Group Photos	05	04	09	EFS

21.	Labs/ laboratory/ies	07	01	08	G/SS
22.	Students societies	01	07	08	EFS
23.	Famous/ famous Personality	07	01	08	EFS
24.	Solar Power/ Panel/ Power Plant	05	03	08	G
25.	Color orange	05	02	07	G
26.	Flag/s	02	04	06	EFS
27.	Facebook	01	5	6	SS
28.	Globe	03	02	05	SS
29.	Classrooms/ Class	04	01	05	G
30.	CSR- CSRP/ driving- Cars , social service/ public service	03	02	05	EFS
31.	MOU	01	04	05	EFS
32.	Degree	04	00	04	EFS
33.	Color Purple	02	01	03	G
34.	Students achievements	02	01	03	EFS
35.	Transport	00	02	02	G
36.	Bow	00	01	01	EFS

Images of this nature are created by the websites to seamlessly integrate into multimodal designs. The complementary role of different colors and page layouts with the accompanied text creates such visuals that become generic, and they are utilized to convey the identities of individuals and locations. For instance, a 'laptop' represents a work place or official work and a skyscraper indicates an "urban area." The deliberate design can be used across various contexts, making it cost-effective. Machin & Leeuwen (2007) delved into the expressive potential of this visual 'language, and revealed the prevalence of positive values in contemporary corporate discourse, encompassing themes such as freedom, creativity, innovation, determination, concentration, spirituality, and well-being (Van Leeuwen, *Multimodality*, 2011, 2015, p. 671). This theme of well-being, along with the other mentioned subthemes, lies at the core of the discourse on sustainability. For example, the above-mentioned signifiers in the table do reflect the campus sustainability themes in the visual text, combining the verbal and nonverbal modes, i.e., the students working at the laptops, labs, and books are some signifiers that are generic of knowledge seeking and technology integration frames. They link up to the theme of 'sustainability sciences' and thus help in the visual framing of text in different mode combinations. The substitution of visual images with verbal messages is not always the right option as "usually the process is represented only visually, and the written text either does not paraphrase it at all, or provide contradictory or even misleading glosses" (Kress & van Leeuwen, 2006, p. 61 as cited in Nasti, Venuti, & Zollo, 2017, p. 40).

Following is a description of the data and analysis with respect to frequencies in the different sectors. The less frequent visuals with a total frequency of less than 7 have not been discussed in the final summary tables and comparison.

1. The first most observed signifiers were 'the different things present all around us in our natural ecosystem', i.e., 144 times. Such things as trees, clouds, flowers, mountains, etc. fall under the category of nature. These have been shown in different ways and frequencies on the websites, but together they took up more textual space on the websites. The instances of green areas had a greater frequency, i.e., 34 times in total, where all six public universities and

five out of six private universities displayed them frequently. The mention of trees, mountains, and water was also greater in number than the other elements of nature, as mentioned in the table.

2. Among all colors, the color ‘blue’ was the most used color on the websites. This visual signifier was the most used by all the selected universities in the current research sample of both public and private universities. The number of occurrences of its use was higher in the private sector than in the public sector. This visual signifier or mode was utilized as the background color of the pages, especially the home page, as the font color of the verbal text, logo color, highlighter, and pictograms. Then, it was also used as a representative color of one university, i.e., NUST. It is a carefully chosen color, as stated under the heading ‘NUST IDENTITY’ where it was mentioned that the objects like a book, the rising sun, and the color blue are visual signifiers that signify certain qualities intended to be the motto and identity of the university. These are values sought under the theme of ‘education for sustainability’ in the campus sustainability discourse. The university views this color as representative of the future, professionalism, commitment, poise, etc. (see p. xviii). Kress describes various colors as signifiers of meanings that are not only socially constructed but also dependent on the “immediate conditions of their interaction” (Hodge & Kress, 1997, p. 37) e.g., red as a signifier to stop may mean different things when put into different contexts and interaction patterns.
3. Next is the signifier of *architecture that was observed in the form of a building or buildings, entrance or parking area and the inner or outer view of the university area or buildings*. The private sector universities displayed it more on their web pages that was 48 times as compared to 19 times in the public sector.
4. The color *white* was the next most used signifier in the common modes used by the universities, i.e., almost 88 times in total. The color *green* was also among the prominent signifiers utilized as around 44 times in total in the public and private sector. The color *black* was also among the prominent colors used by the private sector mostly, as it can be figured out from the table.
5. The display of *university ranking or category* in terms of performing well in any area was also a recurring visual.

6. *Activities* were also equally shown by the public and private sectors in various modes, i.e., photos, slideshows, pictograms, banners, etc.
7. Among colors, the color *yellow or mustard, red, brown* were more prominent, while the color *orange and purple* were also used in lesser frequency.
8. Another common signifier was verbal in nature, but its appearance was observed on the websites as influencing the visual effect and content of the verbal text on them, i.e. '*language/s*' which was visible as a medium and as the term itself. Universities used it in their logos, names, slogans, newspaper cuttings, captions, quotes, and as an option to interact with the audience or translate in the given languages. The languages that were used on the websites were English, Urdu, and Arabic languages.
9. '*Faculty*' was the visual and verbal signifier that appeared 21 times on 7 out of 12 university websites. It was used mostly as group photos of them and in the verbal text about promoting, developing, and their involvement in different activities.
10. '*Seminar/s /conference/workshops*' was the next signifier used almost equally by both public and private universities. It was used visually as photos of such events and as verbal written text.
11. '*Technology/students working on computer/ laptop/ networks*' were the next visual and verbal signifiers used in an equal number of public and private sector universities but the number of occurrences in the public sector was more than private sector.
12. '*Book*' as a visual and verbal symbol has been used almost equally by both public and private sector universities, but the number of private universities utilizing this signifier was greater than the number of public sector universities. The visuals, such as the student handbook, model of a book, a book stand, the vertical placement of books, book cards, images of books and libraries, an open book-like pictogram, and the verbal text—about the number of books, books of knowledge, blue notebooks—about graduate studies, including mention of books—were displayed on the websites.

13. *'Officials/ staff'* involved in different academic and extracurricular activities of the university were visible in the photos with captions and some verbal text carrying mostly the idea that staff and officials are the main beneficiaries and autonomies of the university resources which play a role in campus sustainability.

14. *'Plantation/ green movement/green drives'* appeared in both visual and verbal written text where the modes of slideshow, and photos with captions supported the written text. In the public sector, one university was noted to be displaying this more than any other university of the selected sample i.e. almost 9 times.

15. *'Convocation'* was the event displayed commonly in the public and private sectors equally in the form of photos, slide shows, visuals with captions, or on the video portal. *'Group Photos'* were also the visuals accompanied by captions and verbal text. They were utilized by both the public and private sectors almost equally.

16. *'Labs/ laboratory/ies'* were adverted in the modes of photo with captions; verbal written text and video on the websites, wherein 7 out of 8 instances were found in the private sector, while only one public university used it once.

17. *'Students' societies'* were indicated more by the public sector than the private one. It was mainly used in verbal written text in terms of indicating their presence and details, as well as visually in the form of the logo of the offices of clubs and societies, showing links or lists of clubs and societies, photos, and a slide show of their events and activities. The most occurrences were on the public sector university website, where an interest-based society was indicated, which was unlike the other common societies in the university. That was 'mountain societies' based on the geographical vicinity and purpose of origin of that university.

18. Adverting any *'Famous (anything) Personality/ famous Personality'* was also a common signifier displayed more frequently by the private sector, 7 out of a total of 8 times. Utilizing the modes of photo, verbal written text, and visual slide show, it came out in the form of sketches or pictures of famous politicians, photos of famous places, verbal text about personality development, personality as an inspiration and symbol of some positive work, and famous quotes.

19. *'Solar Power/Power Plant/Solar Panel'* was highlighted by an equal number of universities in the public and private sectors. A private university known for its sustainability research centre adverted it more than the other universities. It was betokening as a visual allied with captions and verbal written text on the websites.

20. Other common signifiers having lesser frequency than the ones discussed above were *flag/ s; facebook; globe; classrooms/ class; csr- csrp/ driving cars, social service/ public service; different activities of university; MOU; degree; color purple; students' achievements; transport; bow* etc.

21. From the observed frequency of different common signifiers in the table and their connection with the themes of campus sustainability discourse, it is evident that the theme of 'greening' was the dominant theme among the still visuals. The theme of 'education for sustainability' was the next most frequently occurring theme perceptible, both explicitly or implicitly, among the common signifiers. The least apparent was the theme of 'sustainability sciences' in terms of the frequency of common still visuals.

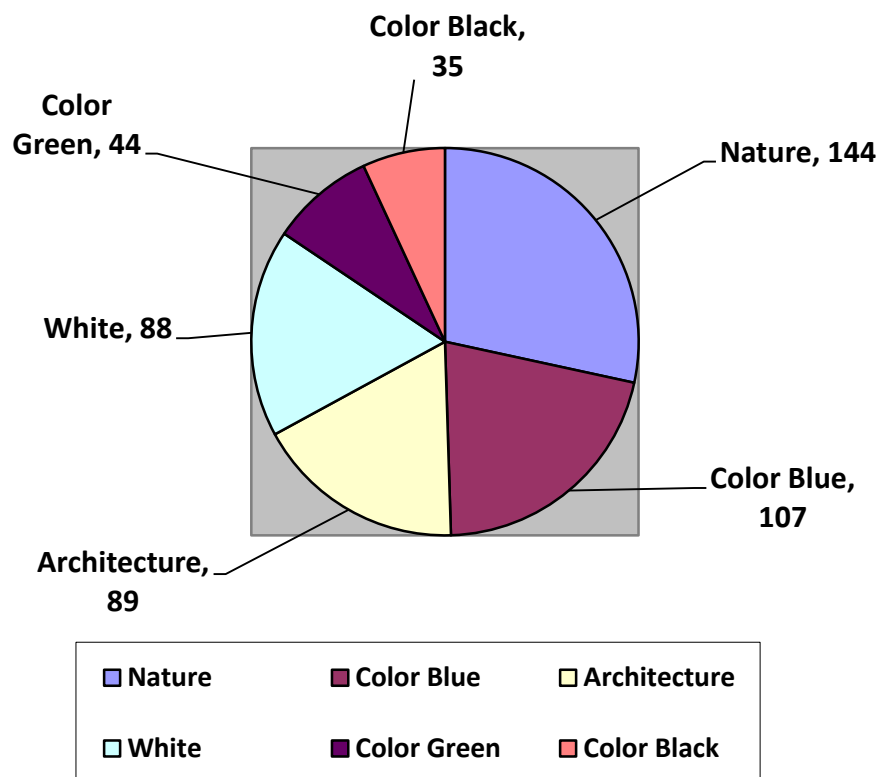


Figure 22 Total frequency of the most frequent signifiers (verbal+nonverbal) common to both the sectors

4.6 Comparison of Verbal and visual (Verbal and non-verbal) frames in static text

A comparison of verbal and visual (verbal +nonverbal) frames is illustrated in the following table.

Table 4.11 Comparison of verbal and visual frames of static visual text

Verbal	Frequency	Higher frequency sector	Visual (Non-verbal+verbal)	Frequency	Higher frequency sector
1. Research/es	187	Private	Lab/s/ laborator/ laboratories	42	private

2.	Environment/s/	59	Private	Nature	186	Private
	environmentally/			Architecture	156	Private
	environmental					
3.	knowledge	58	Private	Book /s	17	Private
				Degree/s	05	Private
4.	green/ less	25	Public	Green	44	private
	greenhouse/					
	greening/					
	greenhouses					

'*Research*' was the most expressed key word verbally while its coordinate in the nonverbal mode was connoted in the photos of *labs* shown on the websites which suggest experimentation and the sites where research is put into action. This frame was the more actively pursued on the private sector websites in terms of frequency.

The key word of '*Environment/s/environmentally/environmental*' was among the top five most frequent key words in the word list related to campus sustainability discourse. *Nature* and ecology are integral constituents of creation of any environment. This category was found to be the top most in terms of its frequency in different forms visually in the non-verbal form with the associated verbal data. Another category in nonverbal text was '*architecture*' as the building/s; view i.e. aerial, outside, inner, upper view; entrance and parking area shown exhibit the location, geography, aura and space. These all are part of physical ecology and environment. This was more implied by the private sector in both the cases which shows that the theme of 'greening' is the major focus, of especially the private sector, in all types of text displayed on the Pakistani university websites.

'Knowledge' as a verbal frame was executed in nonverbal mode as *'book/s'*. They symbolize the medium of conveying knowledge and are taken as primary sources of getting and sharing knowledge. Another symbol was *'degree/s'* which is a signifier of achievement of a certain level of qualification, knowledge and scholarship. All of these were employed more actively in the private sector.

'Green/less greenhouse/ greening/ greenhouses' was the verbal frame more prevalent in the public sector while the color green visually was also a preferred choice of the Pakistani university websites but more in the private sector.

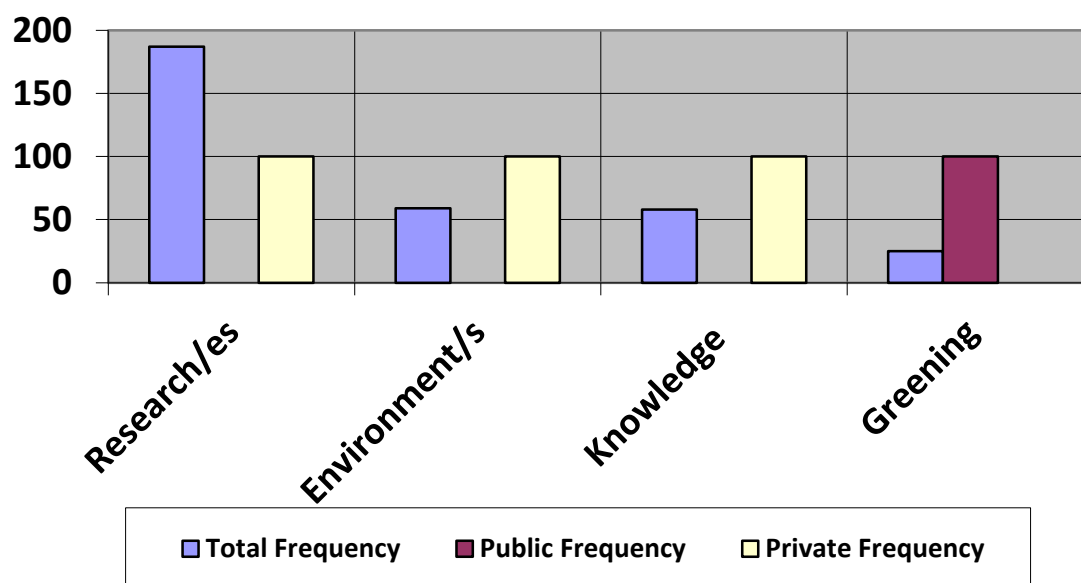


Figure 23 Graph comparing the most frequent verbal frames in the static text sectorwise

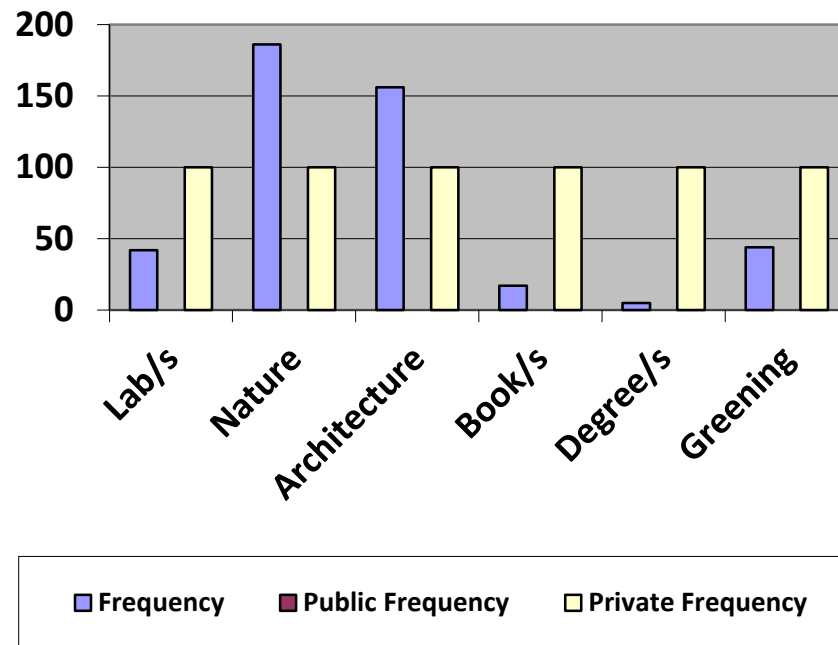


Figure 24 Graph comparing the most frequent visual frames (nonverbal+verbal) in the static text sectorwise

This comparison of non-verbal data supported by verbal data and the verbal only data shows that the themes of ‘greening’ and ‘sustainability sciences’ were the highly preferred themes, and the private sector of Pakistani universities is more open to displaying the related content both in verbal and nonverbal modes. The theme of ‘education for sustainability’ lags behind in the combined integrated text of nonverbal and verbal data placed on the websites.

The most frequently used items are considered to be salient and this saliency helps in framing as

“Frames highlight some bits of information about an item that is the subject of a communication, thereby elevating them in salience. The word salience itself needs to be defined: It means making :i) piece of information more noticeable, meaningful, or memorable to audiences. An increase in salience enhances the probability that receivers will perceive the information, discern meaning” (Entman R. , 1993, p. 53).

4.7 Frequent Signifiers in the Visual (Non-Verbal And Verbal) Dynamic Text

A final frequency table (in descending order) of selected common signifiers in the visual (nonverbal and verbal) dynamic text is given as follows. The initial university wise observation sheet has been attached in the appendix VI (p. ccxcii-cccliii)

Table 4.12: Frequency table of selected common signifiers in non-verbal and verbal text of videos

Sr.#	Common signifiers	Total	Sector	University: frequency	Frequency in the sector	Theme related
1.	Architecture	67				G
i.	Building/s	39	Public: 03	i. NUML:06 ii. NUST: 04 iii. AU :04	14	
			Private: 05	i. UOL :03 ii. HU: 07 iii. IU :04 iv. FAST-NUCES :08 iv. QUSIT: 03	25	
ii.	View/aerial view/closer view/viewed/outside	28	Public: 03	i. COMSATS: 02 ii. NUML: 06	11	

	view/inner			iii. NUST :03	
	view/upper view/				
	outer view				
			Private:04	i. UOL: 04 ii. HU:06 iii.IU :04 iv. QUSIT: 03	17
2.	Nature	42			
	i.				
	Green / green	22	Public: 04	i. COMSATS :02	11
	patches/ green			ii. NUML :03	
	plantation/ green			iii. AU: 04	
	areas/ green			iv. NUST :02	
	grounds/ lush green				
	foothills/ green				
	studded/ green				
	shrubs/ green lawns/				
	green grass/ greenry				
			Private:04	i. UOL :03 ii. IU: 2 iii.HU:04 iv. FAST- NUCES :02	11
	ii.				
	Tree/s/	20	Public : 02	i. NUML: 05	07
	Clouds	=5+		ii. COMSATS: 02	

	/sky/	3+				
	Sun/sunrise/	04+				
	water/	03+				
	star/	01+				
	flowers	01+				
		03				
			Private: 04	i. UOL: 01 ii. QUSIT : 06 ii. FAST- NUCES:04 iv. IU :02	13	
3.	Lab/s/engineering lab/computer lab/ scientific lab/ medical lab/ electrical lab/ laboratories/ laboratory/ bio lab	34	Public: 03	i. NUML: 03 ii. NUST: 05 iii. AU :04	12	G/SS
			Private: 05	i. UOL:04 ii. HU:06 iii. IU :06 iv. QUSIT: 01 v. FAST- NUCES: 05	22	

4.	Library/ central library/ digital library	27	Public: 03	i. COMSATS: 01	15	G/SS
				ii. AU :03 iii. NUML:11		
			Private: 04	i. UOL: 03 ii. HU: 05 iii. FAST- NUCES: 03 iv. QUSIT: 01	12	
5.	Language/ s	26	Public: 02	i. AU: 01 ii. NUML: 21	22	SS
				Private: 02		
6.	Classroom/s/ Class/es	22	Public: 03	i. NUML: 08 ii. AU:03 iii. NUST: 01	12	G
				Private: 04		

7.	Book /s	17	Public: 02	i. NUML : 04 ii. AU : 02	06	SS
			Private: 04	i. UOL: 04 ii. HU:03 iii.IU: 02 iv.FAST- NUCES: 02	11	
8.	Blue/ blue sky/ blue colored/ blue water/ blue buses/ blue circle/ blue background/ blue chair/ blue lights	15	Public:04	i. COMSATS: 01 ii. AU: 01 iii.NUML: 02 iv.NUST: 07	11	G
			Private: 03	i. IU :02 ii. HU: 01 iii.FAST- NUCES :01	04	
9.	White/ white font/ White color/ white line/ white line/ white walls/ white uniform/ White text	12	Public: 02	i. NUML: 01 ii. NUST :08	09	G

			Private: 03	i. UOL: 01 ii. IU university: 01 iii. FAST- NUCES: 01	03	
10.	Activities	12	Public: 02	i. NUML : 01 ii. AU: 05	06	EFS
			Private: 02	i. QUSIT :02 ii. FAST : 04	06	
11.	Famous	10	Public: 03	i. AU: 03 ii. NUST: 01 iii. COMSATS :01	05	EFS
			Private:03	i. FAST- NUCES : 01 ii. QUSIT :03 iii. UOL: 01	05	
12.	Technology/ ies	10	Public: 02	i. AU :02 ii. NUML :01	03	SS
			Private:03	i. UOL:02 ii. HU:01	07	

				iii. FAST-NUCES :04		
13.	Seminar/s	06	Public: 03	i. NUML :01 ii. NUST: 01 iii. AU: 02	04	SS
			Private: 01	i. FAST-NUCES:02	02	
14.	Achieve/ment/s/ing	06	Public: 03	i. AU: 02 ii. NUST: 01 iii. NUML : 01	04	EFS
			Private: 02	i. QUSIT :01 ii. FAST :01	02	
15.	Convocation	04	Public: 02	i. NUML: 01 ii. AU :01	02	EFS
			Private: 02	i. FAST-NUCES:02	02	
16.	Flag/s	03	Public: 01	i. AU :02	02	EFS
			Private: 01	i. QUSIT: 01	01	
17.	Rank/ing/ ed	03	Public: 01	i. NUST: 01	01	EFS
			Private: 02	i. QUSIT :01 ii. UOL: 01	02	
18.	Group photo	03	Private: 01	i. QUSIT : 03	03	EFS

19.	Workshop	02	Public: 02	i. AU :02	02	EFS
20.	Transport/ ation	02	Public: 01	i. AU: 02	02	G
21.	Degree/ s	01	Public: 01	i. NUML: 01	01	EFS
22.	Red	01	Public: 01	i. NUST:01	01	G
23.	Conference	01	Public: 01	i. NUML:01	01	EFS

Under the category of *'architecture'*, the signifier of *'building/s'* was the most frequently used visual and verbal frame in the videos of universities, while its frequency was more on the websites of private universities. It occurred 39 times while it was observed 25 times in the private sector where 5 out of the total 6 universities utilized this image and 3 out of the 6 public universities involved this signifier. This frame is conjoined with the theme of *'greening'*. *'View/aerial view/closer view/viewed/outside view/inner view/upper view/ outer view'* was presented in the videos. This was seen at a higher frequency in private universities as compared to the public, where it was slightly lower in frequency. It illustrates the theme of *'greening'*.

The second most frequent common visual and verbal frame category was *'Nature'* that was described in different ways in the form of various visual and verbal signifiers like *'Tree/s/clouds/sky/Sun/sunrise/water/ star/flowers'* in a prominent frequency more in the private sector than it was in the public sector which had half the frequency of the private sector. These encapsulate the theme of *'greening'*.

'Green' as a color as well as a natural element, i.e., *'green patches/ green plantation/ green areas/ green grounds/ lush green foothills/ green studded/ green shrubs/ green lawns/*

green grass/ greenery' in exactly the same frequency in the public and private sector. The color connotes the theme of 'Greening'.

The third most frequent was '*Lab/labs/engineering lab/computer lab/scientific lab/medical lab/ electrical lab/ laboratories/ laboratory/ bio lab*' in the public and private sector, i.e., 34 times as visual with verbal illustration in the videos. 5 out of 6 private universities presented this 22 times while it was lesser in the public sector where 3 universities used it 12 times. It is the exponent of the theme of 'Greening'.

'*Library / central library/ digital library*' was also one of the prominent images used by the universities in terms of frequency. Its frequency in the public sector was a bit higher than the private sector. This space executes the theme of 'Greening'.

'*Language/s*' was also the most used frame in the public sector, where a university used it 21 times out of a total of 26 times in both sectors. The private sector used it sparingly. It was cognizant of the theme of 'Sustainability Sciences'.

The image of '*Classroom/s or Class/es*' was also noticeable in nearly equal frequency in the visual and verbal discourse of videos of both the sectors. This instantiates the theme of 'Greening'.

The image of '*Book /s*' was predominant in the private sector more than the public one. It connotes the theme of 'Sustainability Sciences'.

Color '*blue*' in different contexts (blue sky/ blue colored/ blue water/ blue buses/ blue circle/ blue background/ blue chair/ blue lights) was also shared commonly between the public and private sectors. It appeared at a higher frequency in the public sector as compared to private sector universities that is 11 times out of a total of 15 times. It vibes with the theme of 'Greening'.

Color '*white*' (white font/ White color/ white line/ white line/ white walls/ white uniform) was also the prominent visual frame used by the public and private sector in different frequencies. The frequency was higher in the public sector as compared to the private sector share where it was sporadically used. This frame insinuates the theme of 'Greening'. Kress quotes the classic example of traffic lights where there are three colors as signifiers (Hodge & Kress, 1988, p. 37) which create meaning for social regulations.

This also applies to the semiotic discourse in academic settings for the purpose of sustainability themes that become their choices to communicate their message.

The frame of *'activities'* was equally presented in terms of frequency by the public and private sectors. It designates the theme of 'Education for Sustainability'

'Famous', as a frame, was nearly equally utilized in the public and private sectors in the visual and verbal text. It intimates the theme of 'Education for Sustainability'.

'Technologies' were highlighted more in the public sector than the private one. This frame advocates the theme of 'Sustainability Sciences'.

As a frame in the private sector, *'Seminar'* was nearly half of the frequency in the public sector. It commends the theme of 'Education for Sustainability'. *'Achievements'* were highlighted in the same ratio as the previous one, where it was more prominent in the public sector. It is also the exponent of the theme of 'Education for Sustainability'.

'Convocation' was highlighted at exactly the same frequency in the public and private sectors. It is mainly the proponent of the theme of 'Education for Sustainability'

Image of *'flags'* was used in the public and private sector in nearly equal frequency.

'Ranking' was adverted a bit more in the private sector as compared to the public sector. It melds into the theme of 'Education for Sustainability'.

'Group photo' was used in the private sector only by a university. It adjoins the theme of 'Education for Sustainability'.

'Workshop' was highlighted only in the public sector by a university. It navigates to the theme of '*education for sustainability*'.

'Transport' was also adverted by a public university only. It espouses the theme of '*greening*'. *'Degree'* was highlighted once by a public university only. It conforms to the theme of 'Education for Sustainability'.

'Red' as a color was used once by a public university only. It traces the theme of '*Greening*'. *'Conference'* was highlighted once by a public university only. It accedes to the theme of '*education for sustainability*'.

In the private sector, *'Building/s'; 'Lab/s'; 'View (every type)'; 'Library'; 'Nature' ('Tree/trees/clouds/sky/Sun/sunrise/water/star/flowers)'; 'Book/s'; 'Seminar'; 'Ranking'; 'Group photo'* were preferred. This means that the theme of *'greening'* was the most dominant, then came the theme of *'Education for Sustainability'*. The least used was the theme of *'Sustainability Sciences'*.

In the public sector, *'language/s'; 'white'; 'blue'; 'technologies'; 'achievements'; 'workshop'; 'transport'; 'degree'; 'red'; and 'conference'* were prioritized. This shows that the themes of *'greening'* and *'education for sustainability'* were nearly equal in frequency in terms of the prominence of the above-mentioned frames. The theme of *'sustainability sciences'* was the least used.

In both sectors, *'Classroom/s or Class/es'; 'Green'; 'activities'; 'Famous'; 'Convocation'; and 'flags'* were shared in exactly equal or nearly equal frequency. The theme of *'Greening'* and *'Education for Sustainability'* equally shared the prominence while the theme of *'Sustainability Sciences'* was missing in this context.

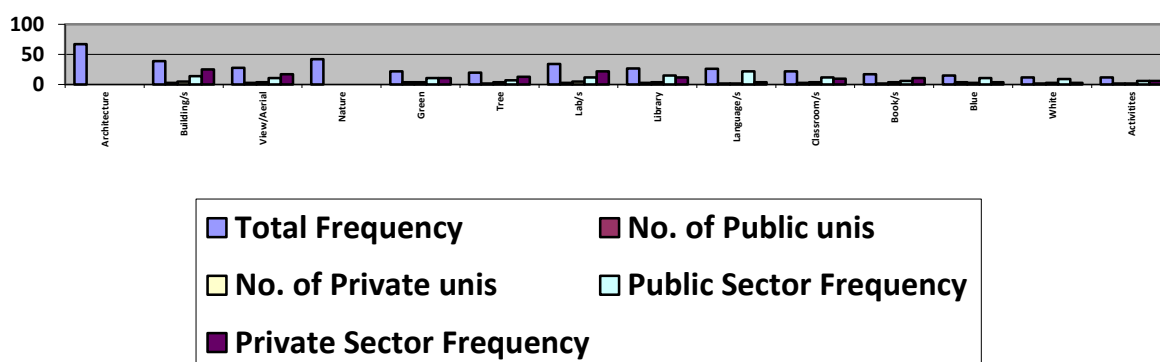


Figure 25 Graph showing the frequency level of common signifiers in non-verbal and verbal text of videos

4.8 Comparative Analysis of the Visual Signifiers of the Static and Dynamic Text

Table 4.13 given below illustrates the comparison of signifiers in the static and dynamic data of the websites.

Table 4.13 Comparison of common signifiers of the static and the dynamic text

Sr.#	Common signifiers in videos	Total frequency	Frequency in the sector	Common signifiers in static data	Total frequency	Frequency in the sector
1.	Architecture	67		1. Nature	144	
i.	Building/s	39	Public: 14 Private: 25	i. Greenry/ green patches/ green lawns/ plants and trees/ green areas	34	Public: 15 Private: 19
				ii. Tree	22	Public: 11 Private: 11
ii.	View/aerial view/closer view/viewed/o outside view/inner view/upper	28	Public: 11 Private: 17	iii. Clouds	07	Public: 05 Private: 02

	view/ outer view					
				iv. Mountains	24	Public: 24 Private: 00
2.	Nature	42		v. Sky	08	Public: 04 Private: 04
iii.	Green / green patches/ green plantation/ green areas/ green grounds/ lush green foothills/ green studded/ green shrubs/ green lawns/ green grass/ greenery	22	Public: 11 Private: 11	vi. Sun	05	Public: 05 Private: 00
				vii. Water	18	Public: 16 Private: 02
iv.	Tree/s/ clouds/sky/ Sun/sunrise/ water/	20	Public: 07 Private: 13	viii. Moon	02	Public: 02 Private: 00

	star/ flowers				ix. Star	04	Public: 02 Private: 02
3.	Lab/s/ engineering lab/computer lab/ scientific lab/medical lab/ electrical lab/ laboratories/ laboratory/ bio lab	34	Public: 12 Private: 22		x. Bird	01	Public: 01 Private: 00
					xi. Eagle	01	Public: 01 Private: 00
4.	Library/ central library/ digital library	27	Public: 15 Private: 12		xii. Ecosys tem	04	Public: 04 Private: 00
					xiii. Earth	03	Public: 03 Private: 00
5.	Language/ s	26	Public: 22 Private: 04		xiv. Leaves	02	Public: 02 Private: 00
					xv. Flowers	09	Public: 06 Private: 03

6.	Classroom/s/ Class/es	22	Public: 12 Private: 10	2. Color Blue/ Blue/ Blue font	107	Public: 41 Private: 66
				3. Architecture	89	Public:31 Private:58
7.	Book /s	17	Public: 06 Private: 11	i. Building/s	67	Public: 19 Private: 48
				ii. Entrance/ parking area	06	Public: 03 Private: 03
8.	Color Blue	15	Public:11 Private: 04	iii. View	16	Public: 09 Private: 07
				4. White	88	Public: 18 Private: 70
9.	Color White/ white font/ white line/ white walls/ white uniform	12	Public: 09 Private: 03	5. Color Green	44	Public: 17 Private: 27
				6. Color Black /Blackish	35	Public: 05 Private: 30
10.	Activities	12	Public: 06	7. Activities	30	Public: 16

			Private: 06			Private: 14
				8. Ranking /Category	28	Public: 05 Private: 23
11. Famous	10	Public: 05 Private: 05		9. Color Yellow / Mustard	23	Public: 10 Private: 13
				10. Language	23	Public: 20 Private: 03
12. Technology/ ies	10	Public: 03 Private: 07		11. Faculty	21	Public: 14 Private: 07
				12. Seminar/s /conference/wor kshops	20	Public: 09 Private: 11
13. Seminar/s Conference /Workshop	06+010 2=09	Public: 04 Private: 02		13. Technol ogy / students working on computer/ laptop/ networks	16	Public: 11 Private: 05
				14. Book	15	Public: 07 Private: 08

14.	Achievement/s /achieve /achieving	06	Public: 04 Private: 02	15.	Officials / staff	13	Public: 10 Private: 03
				16.	Color red/ red colored	12	Public: 03 Private: 09
15.	Convocation	04	Public: 02 Private: 02	17.	Plantation/ green movement/gr een drive	11	Public: 10 Private: 01
				18.	Color brown	10	Public: 02 Private: 08
16.	Flag/s	03	Public: 02 Private: 01	19.	Convoca tion	10	Public: 04 Private: 06
				20.	Group Photos	09	Public: 04 Private: 05
17.	Ranking/ ranked	03	Public: 01 Private: 02	21.	Labs/ laboratory/ies	08	Public: 01 Private: 07
				22.	Students societies	08	Public: 07 Private: 01
18.	Group photo	03	Private: 03	23.	Famous/ famous Personality/Pers onality	08	Public: 01 Private: 07
19.			Public: 02	24.	Solar Power/ Power	08	Public: 03

				Plant/Solar Panel		Private: 05
20.	Transport/ transportation	02	Public: 02	25. Color orange	07	Public: 02 Private: 05
21.	Degree/ s	01	Public: 01	26. Flag/s	06	Public: 04 Private: 02
22.	Red	01	Public: 01	27. Facebook	6	Public: 05 Private: 01
			Public: 01	28. Globe	05	Public: 02 Private: 03
				29. Classroo ms/ Class	05	Public: 01 Private: 04
				30. CSR- CSRP/ (driving cars etc.) , social service/ public service	05	Public: 02 Private: 03
				31. MOU	05	Public: 04 Private: 01
				32. Degree	04	Public: 00 Private: 04
				33. Color Purple	03	Public: 01 Private: 02

34. Students' achievements	03	Public: 01 Private: 02
35. Transport	02	Public: 02 Private: 00
36. Bow	01	Public: 01 Private: 00

Hodge & Kress (1988) in 'Social Semiotics' explain the meaning-making process in discourse as a form of organization socially placed concerning the institution as they say that "Discourse in this sense is the site where social forms of organization engage with system of signs in the production of texts, thus reproducing or changing the set of meanings and values which make up a culture" (p. 6). Kress illustrates this by giving an example of the institution of medicine where a specific set of meaning-making takes place with the help of the processes socially appropriate to this institution through its participants e.g., doctor, surgeon, nurse, patient, researcher, etc. (Hodge & Kress, 1988, p. 6). The same applies to educational institutions, where texts are produced for certain discourses through signifiers appropriate to the relevant themes. The discourse of sustainability on the websites of private and public sector universities must be one of them.

4.9 Comparison of static versus dynamic visual text (sector wise)

Kress and Leeuwen's visual framing (1996) sees the technique of the way different components of a visual composition are displayed by separated/connected frame lines, or other framing devices like color and other visual attributes (Van Leeuwen, 2005) which act as signifiers of certain themes in the visual text of static and dynamic nature. Following is the comparison of such signifiers in terms of frequency and commonality in both types of text.

The highest frequency of visuals in the still text of both sectors, i.e., around 144 times under the category of 'Nature', was illustrated through different signifiers present all around us. In the videos, nature as a category signified by several signifiers (i.e. Tree/s/ clouds /sky / Sun/sunrise/ water/ star/ flowers) was placed at number 8 in terms of frequency in the descending order, i.e., 42 times. In the static visuals, the public sector displayed it more, i.e., 60 times, as compared to 40 times in the private sector. In the videos, it was the private sector that dominated the public one, as shown in the table. The signifier of 'greenery', in the form of green patches, green lawns, green plants, and green area, was the most used one in the category of 'nature'. The color *green and the nature's most observed features (i.e. green patches/ green plantation/ green areas/ green grounds/ lush green foothills/ green studded/ green shrubs/ green lawns/ green grass/ greenery)* were illustrated 34 times in the still visuals, while it was 22 times in the videos. In the videos, the public and private sectors had equal frequency of this signifier, while the private sector dominated in the static visuals. 'Tree/s' as a sign of 'nature' was also used at a higher frequency in the static visuals than in the videos. *Clouds, sky, sun, water, moon, star, flowers* were common signifiers dominant in private sector in videos while the public sector was dominant in the static visuals.

The most frequently used visual in both private and public sectors in the videos, was the 'architecture' i.e. 'buildings' and 'view' that took up the most space i.e. 67 times. The 'view' in videos included aerial view, closer view, outside view, inner, upper and outer view i.e. 28 times. The architecture including buildings, views, entrance. parking area was the fourth most prominent frames in the still visuals i.e. 89 times while in the videos, this frame was ranked as the most frequent i.e. 67 times. The private sector dominated the public sector in both types of visuals i.e. static and dynamic visuals (videos).

The color 'Blue' was also commonly illustrated in both modes, but it was less frequent in the videos, i.e., 15 times as compared to 107 times in the still visuals. The private sector utilized it with more frequency in the still visuals, while it was more frequent in the public sector, as shown in the table. The color *white* was the fourth highest frequency signifier and the third most prominent one among the frequent still visuals, i.e., 88 times, while in videos, it had a much lower frequency, i.e., only 12 times. The private sector utilized it more than the public sector in both types of visuals.

'Language/s' was Also, an important aspect occurred 49 times in total, as illustrated in the videos, i.e., 26 times, but also in the still text, i.e., 23 times. The public sector dominated both types of text.

'Lab/s' of different types were illustrated 42 times in total as showing 34 times in the videos while in the still visuals, it was 8 times. The private sector dominated in both types of visuals.

Different *'activities'* were also frequently highlighted in the same total frequency as that of *'labs'* but they were more displayed in the still visuals as compared to the frequency in videos. The public sector dominated in both types of visuals.

'Book /s' was also a noticeable signifier i.e. 32 times in total out of which 17 times in the videos while 15 times in the videos was observed. The private sector dominated in terms of frequency in both type of visuals.

'Ranking/ ranked /Category' of the respective universities was also displayed several times on the websites, but it came out more on the still visuals, i.e., 28 times, than on the videos, i.e., 3 times. The private sector dominated both types of visuals.

'Seminar/s Conference /Workshop' were also highlighted in the still visuals, i.e., 20 times more than nine times in the videos. The private sector had a bit more frequency in the still visuals, while the public sector was a bit more active in displaying this signifier in the videos.

'Classroom/s/Class/es' were displayed more in the videos, i.e., 22 times, than in the still visuals, i.e., 5 times. The public sector was at the forefront of the videos, while the private sector was leading in the still visuals.

'Technology/ies' was illustrated through visuals and verbal text, commonly 10 times in videos and 16 times in still visuals. The public sector predominated in the still data, while the private sector domineered in the videos in terms of frequency.

'Famous' things, places or personalities have been highlighted through the verbal text and visuals as nearly equal in terms of frequency in the videos, i.e., 10 times as well as 8 times in the still visuals. The private sector preponderated in the still visuals, while it was equal to the public sector in the videos.

'*Convocation*' was exhibited more, i.e., 10 times in the still visuals as compared to 4 times in the videos. The private sector in the still data was a bit more active in exhibiting this than in the videos, where it was equal to the public sector universities.

'*Red*' was domineering 12 times in the still visuals, while in the moving text, i.e., videos, it was illustrated only once in a public university.

'*Group photo/s*' prevailed more in the still visuals, i.e., nine times as compared to three times in videos. The private sector displayed it a bit more than the public sector in the still visuals, while it was found only in the private sector university videos.

'*Achievement/s/achieve/achieving*' were highlighted more, i.e., six times in videos and three times in the static data. The private sector was a bit higher in frequency in the still visuals, but the public sector was dominant in the videos.

'*Flag/s*' were displayed in still visuals, i.e., 06 times more than 03 times in the videos. The public sector dominated in both types of visuals.

'*Transport/ transportation*' was adverted equally as 02 times both in videos and in still visuals while it was utilized in the public sector only in both type of visuals.

'*Degree/s*' was exhibited only once in public sector videos while it was 04 times in still visuals in the private sector only.

The common frames that were more frequent in the videos and lesser in the still visuals were: '*Classroom/s/Class/es*'; '*Achievement/s/achieve/achieving*'.

The common frames that were more frequent in the still visuals and lesser in the videos were: '*seminar/s*'; '*convocation*'; '*flag/flags*'; '*ranking/ ranked*'; '*group photo*'; '*workshop*'; '*degree/s*'; '*red*'; '*conference*'.

Equally frequent in the videos as well as the still visuals was the frame of '*Transport/ transportation*'.

The frame of '*library*' i.e. 27 times was only present in the videos.

The frames of '*Solar Power/Power Plant/Solar Panel*'; '*Color orange*'; '*Facebook*'; '*Globe*'; '*CSR- CSRP(driving)*'; '*social service/ public service*'; '*MOU*'; '*Color Purple*'; '*Bow*' were only present in the still visuals.

The consistent appearance of symbolic or verbal forms in different texts visually, e.g., certain words, or phrases, and images is defined by Entman (1993) as framing. So, the above mentioned signifiers tend to frame the themes of campus sustainability when appearing frequently in the texts. Following is the list of signifiers common to both videos and still visuals present on the websites of public and private universities in Pakistan, and these are the visual subframes connected to the main frames (themes) of campus sustainability.

1. Nature (Green / green patches/ green plantation/ green areas/ green grounds/ lush green foothills / greenry/ plants and trees/plantation/ green movement/green drive; tree/s/ clouds/sky; sun/sunrise/ water/ star/ flowers)
2. Architecture (Building/s; View/aerial view/closer view/viewed/outside view/inner view/upper view/ outer view; entrance/ parking area)
3. Color Blue/ Blue/ Blue font
4. White
5. Language/ s
6. Lab/s/ laboratory/ies
7. Activities
8. Book /s
9. Ranking/ ranked /Category
10. Seminar/s Conference /Workshop
11. Classroom/s/Class/es
12. Technology/ies / students working on computer/ laptop/ networks
13. Famous/ famous Personality
14. Convocation
15. Red
16. Group photo/s
17. Achievement/s/ achieve/achieving / Students' achievements
18. Flag/s
19. Transport/ation
20. Degree/s

Table 4.14 : Comparison of common signifiers of the static and the dynamic visual text

Sr.#	Common signifiers	Total frequency in dynamic text	Higher frequency Sector	Total frequency in static text	Higher frequency sector	Total frequency in both static and dynamic text	Themes related
1.	Nature	42	Private: 26>21	144	Public: 60>40	186	G
i.	Greenry/ green patches/ green lawns/ plants/ green areas	22	Public: 11=11	34	Private: 19 >15		
ii.	Tree /s	05	Public:3>2	22	Public: 11=11		
iii.	Clouds/ Sky/ Sun/ Water/ Moon/ Star/ Flowers	15	Private:13 > 07	07+08+05 +18+02+0 4+09=38	Public: 34>10		
2.	Architecture	67	Private:42 >25	89	Private: 58>	156	G

					31		
i.	Building/s	39	Private: 25 >14	67	Private: 48>		
					Public: 19		
ii.	Entrance/ parking area			06	Public: 03=		
					Private: 03		
iii.	View /aerial view/ closer view /viewed /outside view/ inner view /upper view/ outer view	28	Private:17 >11	16	Public: 09>07		
3.	Color Blue/ Blue/ Blue font	15	Public:11 > 04	107	Private: 122 66> 41		G
4.	White	12	Private: 03> 02	88	Private: 100 70>18		G
5.	Language/ s	26	Public: 22> 04	23	Public: 49 20>03		SS

6.	Lab/s/ laboratory/ies	34	Private: 22> 12	08	Private: 07> 01	42	G,SS
7.	Activities	12	Public: 06= 06	30	Public: 16>14	42	EFS
8.	Book /s	17	Private: 11> 06	15	Private: 08>07	32	SS
9.	Ranking/ ranked /Category	03	Private: 02 >01	28	Private: 23> 05	31	EFS
10.	Seminar/s Conference /Workshop	06+01+02 =09	Public: 04 > 02	20	Private: 11> 09	29	EFS
11.	Classroom/s/ Class/es	22	Public: 12 >10	05	Private: 04> 01	27	G
12.	Technology/ ies	10	Private: 07> Public: 03	16	Public: 11 > 05	26	SS
13.	Famous/ famous Personality	10	Private:05 = 05	08	Private: 07> 01	18	EFS

14.	Convocation	04	Public: 10 02= 02	Private: 14 06> 04	EFS
15.	Red	01	Public: 01 12	Private: 13 09> 03	G
16.	Group photo/s	03	Private: 03 09	Private: 12 05> 04	EFS
17.	Achievement /s/achieve /achieving	06	Public: 04 03 > 02	Private: 9 02> 01	EFS
18.	Flag/s	03	Public: 06 02> 01	Public: 09 04> 02	Overall SD/ EFS
19.	Transport/ ation	02	Public: 02 02	Public: 04 02	G
20.	Degree/ s	01	Public: 01 04	Private: 05 04	EFS

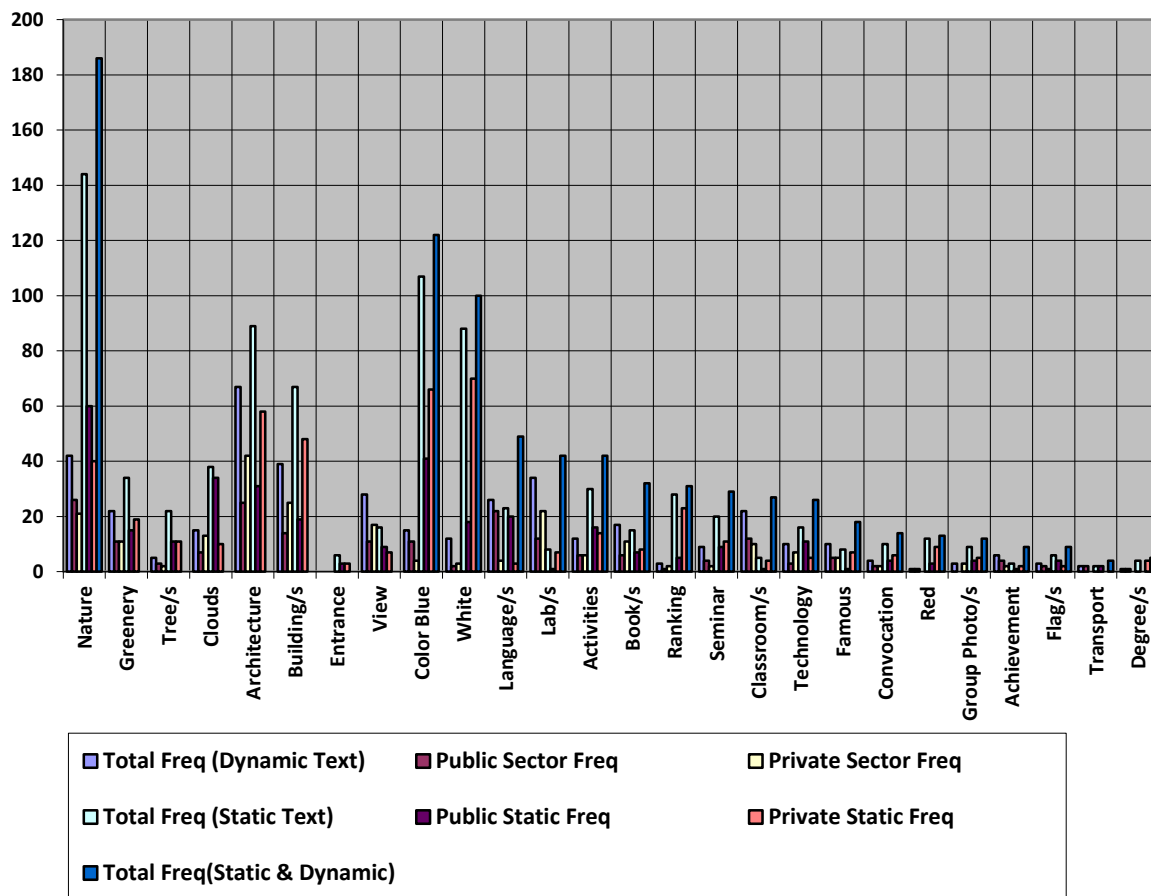


Figure 26 The most common signifiers frequently used in both static and dynamic text sector wise

The 20 common signifiers illustrate the themes of campus sustainability discourse, and the highest frequency was of the theme of 'Greening', i.e., 8 signifiers, as well as the theme of 'EFS', i.e., through the 9 categories of signifiers. The less presented was the theme of 'Sustainability Sciences' i.e., 4 categories of signifiers of both the private and public university websites.

Nature (green patches/ green plantation/ green areas/ Plantation/ green movement/green drive; Tree/trees/ clouds/sky; Sun/sunrise/ water/ star/ flowers); *Architecture* (Building/s; View/aerial view/closer view/viewed/outside view/inner view/upper view/ outer view; entrance/ parking area); *Colors* like blue, white, red; *Lab/s/ laboratory/laboratories*; *Classroom/s/Class/es*; *Transport/ transportation* were the signifiers framing the theme of 'greening'. From the perspective of SDGs, the goal 7

(Affordable and Clean Energy); the goal 6 (Clean Water and Sanitation); the goal 15 (Life on Land); the goal 3 (Good Health and Well-being); the goal 11 (Sustainable Cities and Communities); the goal 13 (Climate Action) are relevant to the above mentioned frames of campus sustainability discourse .

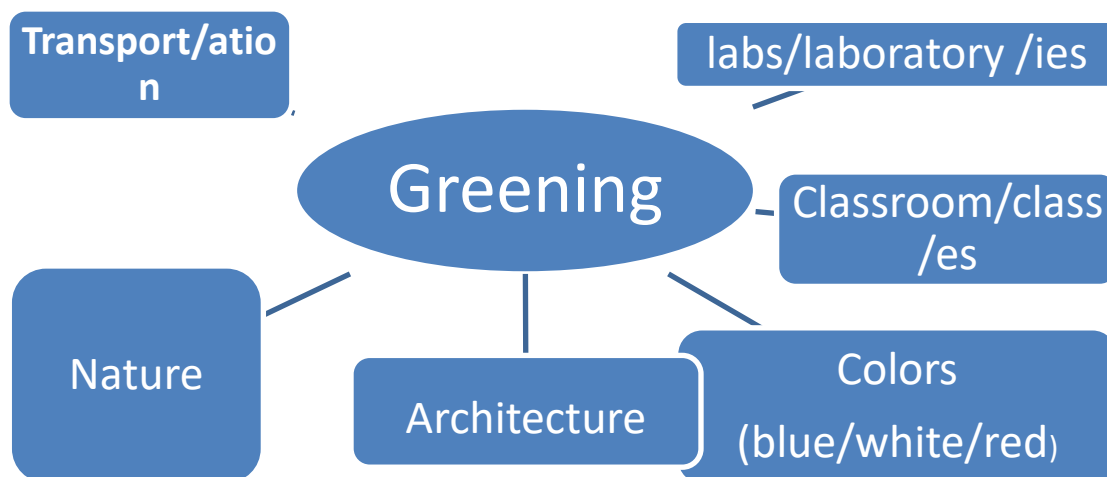


Figure 27 Prominent common Signifiers w.r.t the theme of greening

Language/s; book/s; technology/ technologies / students working on computer/ laptop/ networks were the signifiers connoting the theme of ‘Sustainability Sciences’. The related SDGs to these most frequent frames are the goal 9 (Industry, Innovation and Infrastructure); the goal 4 (Quality Education); the goal 17 (Partnerships) .

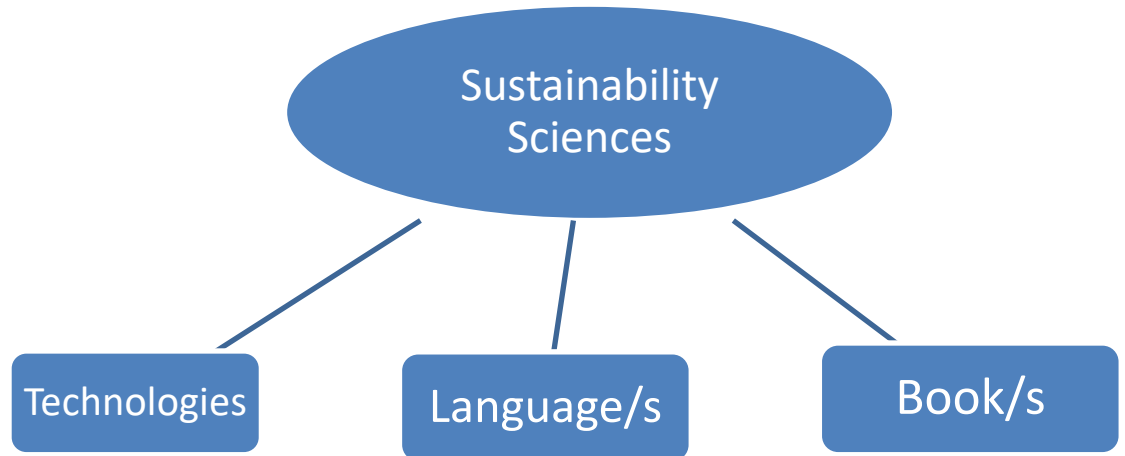


Figure 28 Prominent common Signifiers w.r.t the theme of Sustainability Sciences

Activities; ranking/ ranked/category; seminar/s conference/workshop; famous/famous personality; convocation; group photo/s; achievement/s/achieve/achieving/ students' achievements; flag/s; degree/s were the signifiers showcasing the theme of 'Education for Sustainability'. The goal 9 (Industry, Innovation and Infrastructure); the goal 10 (Reduced Inequality); the goal 4 (Quality Education); the goal 17 (Partnerships); the goal 8 (Decent Work and Economic Growth) were relevant to these frames.

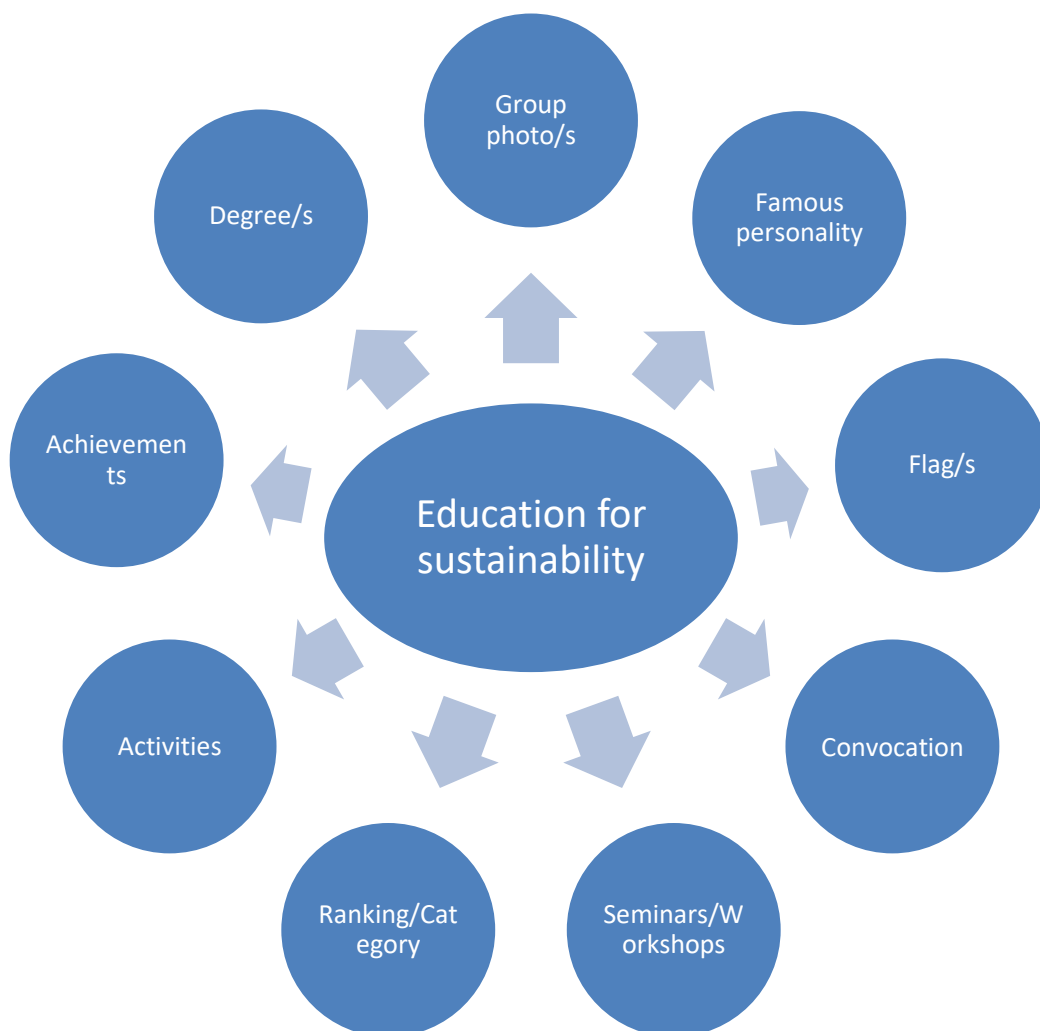


Figure 29 Prominent common Signifiers w.r.t the theme of Sustainability Sciences

The seamless integration of multimodal designs, including verbal and nonverbal modes, to signify the concepts and themes in a discourse, like on these higher education websites, creates visuals that are 'generic'. This is achieved by using a restricted or specific vocabulary and decontextualizing elements. For instance, a 'laptop' represents an 'office,' and a skyscraper indicates a 'city' (Van Leeuwen, *Multimodality*, 2011,2015, p. 671). These icons or images are visual signifiers that are deliberately designed to convey the themes. Machin and van Leeuwen delved into the expressive potential of this visual 'language', and their exploration revealed the prevalence of positive values in contemporary corporate discourse, encompassing themes such as freedom, creativity, innovation, determination, concentration, spirituality, and well-being (p. 151).

This chapter describes the processing of data analysis and outlines the main signifiers w.r.t various domains of the nature of visual data (verbal or non-verbal), types of website text (static or dynamic), and the sectors of HEIs (public and private) domains. It also gives a detailed view of the main results in the form of quantitative and qualitative findings and interprets them in the light of theoretical and conceptual frameworks. Drawing from the above-mentioned discussion, the main findings will be outlined and discussed to synthesize the main conclusions in the next chapter.

CHAPTER 5

FINDINGS AND DISCUSSION

The following findings have been summarized from the analysis done in the previous chapter. The analysis involved the observations taken from both the verbal and nonverbal data collected from the static text, the dynamic text, the common signifiers of static and dynamic text; the prominent signifiers and the modes with respect to the public and private sector universities and the three themes of campus sustainability discourse.

5.1 Main Findings

The findings discussed here represent the exploratory results, which were inferred to give an overall picture of the answers to the main research questions. The discussions have been based on such findings, which could lead to some outputs that may be generalized or made specific with respect to the campus sustainability discourse in the Pakistani context.

5.1.1 Links and Pages Showing Campus Sustainability Discourse

The categories of links and pages of the websites used for collecting static and dynamic data were around 65 in number after rounding off the similar ones. After collection, categorization, and categorization/ editing of relevant data, it was found that the most static and dynamic text was found on the main page, or 'home page', with respect to different campus themes. There were almost 292 occurrences of the relevant data found, out of which 215 occurrences were available on the 'home page' of the private universities, while there were 77 instances on the same page of the public sector universities. The second most occupied category of links having related text was 'News and Events/ News and Upcoming Events/ Latest Events/ Latest News and Events/ 'Activity Highlights' and the third most was the 'ORIC page'. In these two links, the public sector websites showed more data than the private sector. A detailed picture of all the links and pages with their respective frequencies has been given in the tables.

Among the usual links found on most of the websites of the universities, some of them were quite unique to the respective universities. A noteworthy link among them was of a centre established for campus sustainability discourse that is an exclusive centre established for this purpose at a private university, i.e., SDRC (Sustainable Development Research Center), which displayed several instances of verbal and nonverbal text, i.e., 33 times on that specific page and allied sub-links/ pages. This page displayed the fifth highest frequency in total of the selected data. This centre covers all three themes of campus sustainability discourse in the academic world as well as for the betterment of society. The pages dedicated to the green drives and allied sub-links like the ‘Go Green’ campaign and club; the ‘Green Campus’ link on the home page; and the link to ‘About Us’ of the ‘Go Green’ campaign by the public sector also highlighted the relevant theme text with a total frequency of 26 times, which were mostly displayed on the public sector universities’ websites than the private sector universities. Other links like networking and international partnerships, mountain research, and ‘Corporate Social Responsibility (CSR) Initiatives’ were active on the websites of public universities, while private universities did not show any on their websites. The link to ‘video tour’ was used five times on the websites of private sector universities only.

5.1.2 Findings of the Thematic Analysis

The overall themes found in the static and dynamic text were found as follows:

5.1.2.1 Overall Themes in Static and Dynamic Text and their Sector- wise Comparison

Over all, the static text on the websites of public sector universities exhibited more frequent instances of campus sustainability discourse themes than those of private sector universities. The most frequently observed was the theme of ‘greening’ occurring a total of 187 times in the static text. Then, the theme of ‘Education for Sustainability’ was frequent, occurring 166 times in both sectors. The theme of ‘Sustainability Sciences’ was a little less frequent than the second one, i.e., 160 times in both sectors. The public sector showed more instances of all three main themes of campus sustainability discourse.

Over all, the dynamic data, i.e., videos on the websites, showed the private sector as more active in displaying the themes of campus sustainability discourse. The most

frequently observed was the theme of 'sustainability sciences' that occurred in total 63 times. The second highest was the theme of 'education for sustainability', i.e., 57 times, while the theme of 'greening' was the third in the list, i.e., 47 times.

Comparing the results of overall themes detected in the static and dynamic text showed that the theme of 'education for sustainability' was the second highest frequency-wise in both types of text. The theme of 'Sustainability Sciences' was also prominent, as it was the highest frequency wise in the dynamic text, i.e., 63 times, while its frequency was also noticeable in the static text, i.e., 160 times, in both sectors. The theme of 'greening' had the highest frequency, i.e., 187 times, in the static text as compared to 47 times, which is the lowest in the dynamic text, i.e., videos.

Summing up the frequencies of these themes found in the static and dynamic text showed that the highest frequency was of the theme of 'greening' i.e. 234 times in both types of text while the second highest was both the theme of 'Sustainability Sciences' and the theme of 'education for sustainability' i.e. 223 times. They were equal in the static and dynamic text. This gives the idea that these themes were preferred to be displayed in both static and dynamic text. The degree of variation of these themes were also noted and observations were checked in terms of public and private sector university websites. The prominence of the theme of EFS is beneficial in videos as the dynamic content can be more engaging and educational, helping to inspire and inform a broader audience, including students, staff, and the community but there is a risk of superficial engagement if the content lacks depth or fails to connect with practical applications and critical thinking.

The observation of the higher frequency of these themes in the static text of the public sector and the higher frequency in the dynamic text of private sector websites reveals some trends too. One trend is that the private sector is using dynamic text more while the public sector is more focused on static text, which gives the idea that the private sector of Pakistani universities is using more informal and interactive text than the public sector universities related to campus sustainability discourse. The public sector's higher frequency of sustainability themes in static texts reflects a possible focus on formal communication, detailed documentation, and policy articulation. The private sector's

prominence in dynamic texts suggests an adaptive and potentially more engaging approach for showcasing sustainability initiatives and leveraging visual and interactive media.

Overall, the comprehensive focus on key themes across both static and dynamic texts underscores the commitment of Pakistani universities to advancing campus sustainability. Catering to diverse audiences and ensuring broad-based impact, this dual approach, including detailed documentation and dynamic engagement, provides a holistic view of their sustainability efforts.

5.3 Findings of the Analysis of Visual (Nonverbal + Verbal) Signifiers

The world of visual meanings is so vast as different modes combine the verbal and nonverbal signifiers of discourse to a different level. It is true that “one cannot derive the meaning of a word or sentence from its form unless one has *learned* the norms and conventions (grammar, vocabulary) of the language in which it occurs. This is precisely one of the essential differences between the verbal and the visual modality – and thus a reminder that a phrase such as “the grammar of visual design” (Kress and Van Leeuwen 2006) should not be taken literally.” (Forceville, 2011, p. 2). This grammar of visual design has been explored through the main themes of campus sustainability in this study.

The main findings from the analysis of visual (nonverbal+verbal) signifiers about the most frequent in the public and private sectors are given as follows:

1. Frequent Visual (Nonverbal + Verbal) Signifiers in the Static Text

The common signifiers (nonverbal and verbal) of the static text among all the universities were also noteworthy. In both the public and private sectors, ‘Nature’ or the elements of our ecosystem were the highest in frequency. Things like trees, clouds, flowers, mountains, etc. were observed at different frequencies, but in a broader sense, they are put under the signifier category of ‘nature’. Trees, mountains, and water were presented in greater numbers than the other elements of nature among nature’s elements. Putting similar elements having the same source under a category is significant because

“His analysis demonstrated that many identity categories can be expressed verbally as well as visually. But not every category can be expressed in every mode, and the ways in which the same categories are expressed in different modes make a difference and add further meanings and values” (Van Leeuwen, 2011,2015, p. 671).

The color *‘blue’* was the most used color on the websites, i.e., 107 instances were found in total. It was used more in the private sector than in the public sector. It signifies ‘greening’ while conveying the values that this color conveys in the theme of ‘education for sustainability’ in the campus sustainability discourse.

The signifiers under the broader category of *‘architecture’* were displayed in the private sector universities more than the public ones.

‘Colors’ as a signifier represent the theme of ‘greening’. The prominent signifiers in terms of frequency were the colors white, green, and black which were availed more by the private sector than the public sector. Among other colors, the colors yellow or mustard, red, and brown were more prominent, while the colors orange and purple were also used in lesser frequency.

‘Activities’ were also nearly equal in frequency adverted by public and private sector. *‘University ranking or category’* in terms of performing well in any area was also a common more frequently recurring visual displayed by the private sector. ‘Activities’ and ‘rankings’ signify the theme of ‘education for sustainability’.

Another common signifier in verbal and visual form, i.e., *‘language/s’* as the medium, and the lexical item was deployed in the universities’ logo, name, slogans, newspaper cuttings, captions, and quotes as a medium of representation and as an option to interact with the audience or translation in the given languages, i.e., Urdu and Arabic languages. It was exercised more in the public sector.

‘Faculty’ was the common visual and verbal signifier propagated in the public sector more than in the private sector.

'Seminar/s /conference/workshops'; *'Technology/students working on computer/laptop/ networks'*; *'Book'* were the next visual and verbal signifiers used almost equally by both public and private universities.

'Officials/ staff' involved in different academic and extracurricular activities of the university were visible in the photos with captions and some verbal text, more in the public sector than the private sector.

'Plantation/ green movement/green drives' were displayed more in the public sector than the private sector, where it was just propagated by a university.

'Convocation' and the *'Group Photos'* displayed commonly in the public and private sectors almost equally in the form of photos, slideshow, visuals with captions, or on a video portal. *'Labs/ laboratory/laboratories'* were advertised in the modes of photo with captions; verbal written text and video on the websites more found in the private sector, while only one public university used it once.

'Students' societies' were indicated more by the public sector than the private one. The common signifier of *'Famous (anything)Personality/ famous Personality'* in the form of sketches/ pictures of famous politicians, photos of famous places, verbal text about personality development, personality as an inspiration and symbol of some positive work, and famous quotes displayed more frequently by the private sector.

'Solar Power/Power Plant/Solar Panel' as a visual allied with captions and verbal written text was highlighted in an equal number of universities in the public and private sectors. A private university known for its sustainability research centre advertised it more than the other universities.

Other common signifiers in both sectors of the static text having a lesser frequency than the ones discussed above were: *flag/s; facebook; globe; classrooms/ class; CSR-CSR/ driving cars, social service/ public service; different activities of university; MOU; degree; color purple; students' achievements; transport; bow etc.*

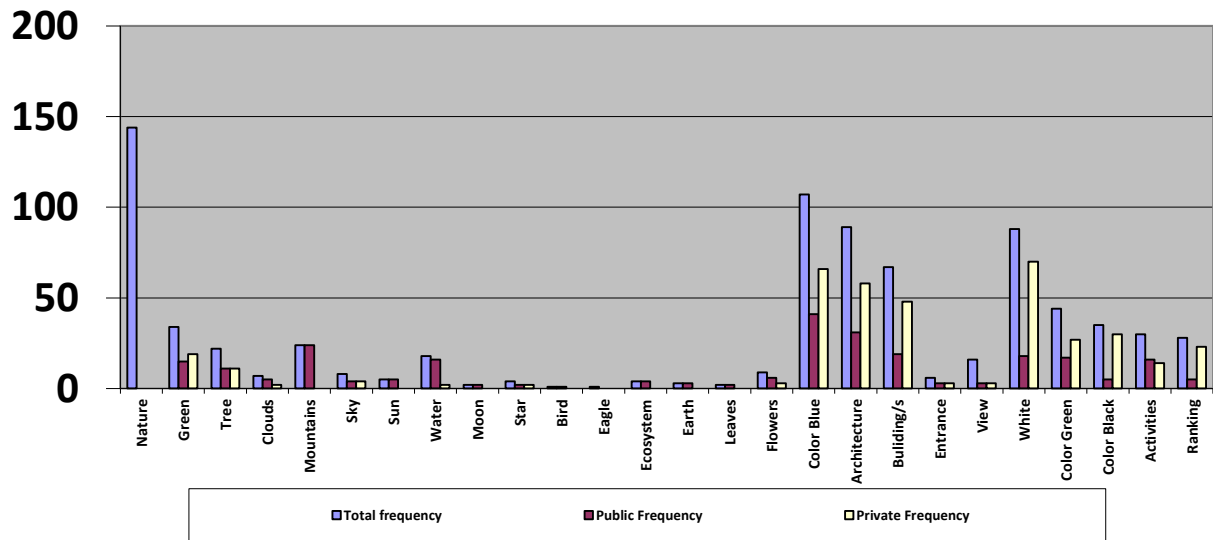


Figure 30 the main frames (verbal+nonverbal) common to the static and dynamic text in both sectors (Cont.)

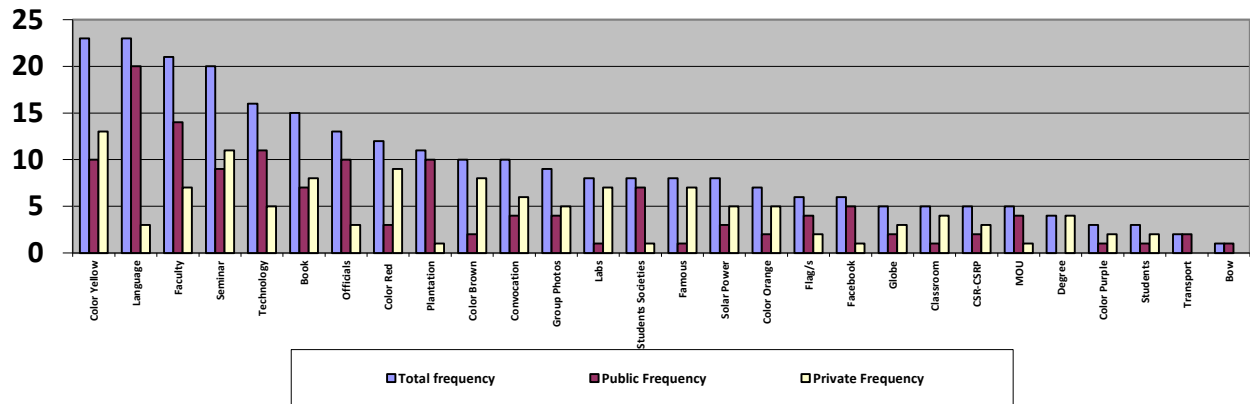


Figure 31 the main frames (verbal+nonverbal) common to the static and dynamic text in both sectors

Over all, the theme of ‘greening’ superseded the other themes found in the total 36 common signifiers, i.e., 16 signifiers. Closer to this were the 15 signifiers advocating the theme of ‘Education for Sustainability’, and the least common were the six signifiers favouring the theme of ‘Sustainability Sciences’.

Visual representation of greening efforts can vividly demonstrate the university's commitment to creating a sustainable campus environment. These initiatives, if overly focused on aesthetics, might not address deeper systemic issues such as energy use, water conservation, or waste management.

The public sector projected the following signifiers more i.e.

- i) 'Nature'
- ii) 'language/s'
- iii) 'Faculty'
- iv) 'Technology / students working on computer/ laptop/ networks'
- v) 'Officials/ staff'
- vi) 'Plantation/ green movement/green drives'
- vii) 'Students' societies'

This gives the idea that signifiers of 'greening', 'sustainability sciences' and 'education for sustainability' were hand in hand in terms of frequency in the static text of the public sector.

The private sector propagated the following signifiers more i.e.

1. 'blue'
2. 'architecture'
3. 'Colors' like white, green, black, red, yellow
4. 'university ranking or category'
5. 'Book'
6. 'Labs/ laboratory/laboratories'
7. Famous (anything)/ famous Personality'

This gives the idea that signifiers of '*greening*' were more in number. The signifiers of the theme of '*education for sustainability*' came in the second place, while the signifiers of the theme of '*sustainability sciences*' were lagging behind in terms of frequency in the private sector.

Both public and private sector utilizing the signifiers in the same or nearly equal frequency were:

- i) 'Activities'
- ii) 'Seminar/seminars /conference/workshops'
- iii) 'Convocation' and the 'Group Photos'
- iv) 'Solar Power/Power Plant/Solar Panel'

This gives the idea that the signifiers of the theme of '*education for sustainability*' were equally purported by the public and private sectors in the static text. The signifiers of other themes were less prominent in terms of equal frequency in the static text of both sectors.

22. Frequent Visual (Nonverbal +Verbal) Signifiers in the Dynamic Text

The most frequently used visual and verbal frame under the category of '*Architecture*' was the signifier of '*building/s*' in the videos that were more on the websites of private universities. So, the theme of 'greening' was expressed through this signifier in the videos.

The second most frequent common visual category was '*Nature*' used more frequently in the private sector. '*Green*' as a color as well as a natural element, i.e., 'plantation/lush green foothills/greenery' etc., in the same frequency in both sectors.

'*Lab/s/engineering lab/computer lab/ scientific lab/ medical lab/ electrical lab/ laboratory/ies/ bio lab*' was the third most frequent, as visuals with verbal illustration were more commonly presented in the private sector.

Other signifiers more frequent in the private sector were: '*Book/s*'; '*Seminar*'; '*Ranking*'; '*Group photo*'. The theme of '*greening*' was the most dominant theme in the private sector while the theme of '*education for Sustainability*' followed it. The theme of '*sustainability sciences*' was the least used in terms of number of signifiers and their individual frequencies.

In the public sector of videos, '*Language/s*'; '*white*'; '*blue*'; '*Technologies*'; '*Achievements*'; '*Workshop*'; '*Transport*'; '*Degree*'; '*Red*'; '*Conference*' were the more frequent signifiers. Through these signifiers, the theme of '*Greening*' and the theme of '*Education for Sustainability*' were nearly equal in frequency while the theme of '*Sustainability Sciences*' was the least used in the public sector in the videos.

A few signifiers like, '*Classroom/s or Class/es*'; '*Green*'; '*activities*'; '*Famous*'; '*Convocation*'; and '*flags*' were shared in exactly equal or nearly equal frequency in both the sectors. These signifiers indicate that the theme of '*Greening*' and the theme of '*Education for Sustainability*' were equally shared while the theme of '*Sustainability Sciences*' was missing as an equal frequency theme in both sectors.

5.4 Modes Used in the Static and Dynamic Data

Data classification and analysis showed that the modes utilized on the websites were of different nature and their various combinations were set up to convey the information which had some share of campus sustainability themes.

The modes used by the still text and the dynamic text, i.e., videos, were different. The findings from both types of text revealed a greater number of modes and their combinations in the static text than in the dynamic text. The submodes that were specific to dynamic text were: '*visual accompanying the background commentary/verbal oral text (oral interview)*'; '*background commentary/verbal oral text*'; *audio*; '*audio + picture*'. The mode of '*verbal written text*' was the most frequent mode especially by the public sector in the static text while the '*background commentary/ verbal oral text*' was the most frequent mode in the dynamic text.

The second highest frequency was that of the sub-mode of '*colors*' preferred by the private sector more than the public in the static text, while this mode was quite subdued among other mode combinations in the dynamic text.

The mode of '*photo/s*' was the third most highly frequent mode in the static text used more in the private sector as compared to the dynamic text, where the public sector was more active in using this. '*logo/s*'; '*photo/s + verbal written text*' or '*picture+ verbal oral text (oral interview)*' were also highly frequent choices.

The *languages* other than English, i.e., Urdu and Arabic were also the submodes in the dynamic and static text in both sectors. The private sector videos were more prone towards *visual based commentary, captions and oral interviews* while the public sector videos were more disposed to '*audio and a visual*' and only '*verbal written text*' mediums.

Different modes used to highlight campus sustainability themes were more common in private universities than in public universities in terms of total frequency. This shows the private sector of Pakistani universities as more vigilant and focused on the variety of modes in both the static and dynamic text relevant to campus sustainability discourse.

5.5 Findings of the Linguistic Analysis

The main findings of the linguistic data i.e. only verbal in nature of both types of text have been presented below.

5.5.1 Common Verbal Signifiers between the Static and Dynamic Text

Other than the non-verbal visuals along with verbal signifiers, the verbal only frames in the written text are important in any type of discourse. The verbal only frames in the static and dynamic text are also significant to consider in a discourse, especially the website discourse.

After editing the word list for the public sector, 632 words were finally listed. The main buzzwords related to all three themes and the concept of sustainability were filtered out, and 17 words were listed, finally covering these themes, which included the top five most frequent words along with their corresponding word forms and the main terms like 'sustainability', 'sustainable development goals', and 'greening'.

In both the private and public sectors, the verbal frames in the videos that had either the same or nearly equal frequency were: *'Development'*; *'Library'*; *'Knowledge'*; *'Libraries'*; *'Cafeteria'*; *'Civil rights or Citizenship'*; *'Life/Lifelong'*; *'Seminars'*; *'Buses'*; *'Class or classrooms'*; *'Auditoriums'*; *'Chinese'*. This shows the focus of verbal discourse on these signifiers connoting different campus sustainability themes.

The verbal frames covering the 'Overall Campus Sustainability Discourse' were: *Campus/es*; *Life / Lifelong*. The frames connoting the theme of 'Education for Sustainability' are listed as follows: *Faculty*; *Skills*; *Management*; *Social*; *Society*; *Degree /s*; *Curricular*; *Service/s*; *Training/trained*; *Cultural*; *Citizen*; *Ranked/ranking*; *Seminars*; *Civil*; *Convocation*; *Responsibility*; *Workshops*; *Islamic*.

The verbal frames connoting the theme of 'Sustainability Sciences' were: *Research*; *Sciences/ Scientific*; *Language/s*; *Linguistic*; *English*; *Chinese*; *Urdu*;

Development/ develop/ developed; Technology /tech/ technical/technological; Computer/s/ computing; Digital; Art / s; Artistic; Knowledge; International; innovation; Literary.

The verbal frames connoting the theme of 'Greening' were: *Lab/s/ Laboratory/ies; Environment; Library/ies; Cafeteria; Green; Auditoriums; Health; Gym; Bus/es; Class/classroom; Sky /skies; Buildings; Blue; Earth; Lush; Mosque; Mountain; Planting; Transport.*

The verbal frames common in the videos with respect to the number of signifiers presenting the theme of 'greening', i.e., 21 verbal signifiers common between both the public and private sectors, had the highest frequency. The second highest was the theme of 'Sustainability Sciences', i.e., 19, and then 'Education for Sustainability', i.e., 17 signifiers in total in both sectors. These verbal signifiers were actually labelled as 'frames' as they direct towards these themes of campus sustainability discourse.

The above observations lead to the analysis that the highest frequency of verbal frames in the videos relates to the theme of 'Sustainability Sciences' as the theme that was found in the highest frequency of signifiers. The second highest was the theme of 'Education for Sustainability', while the theme of 'Greening' was found in rather low frequency signifiers. Among the top 10 frames, the theme of 'greening' only incurred in 'environment' with the same observed frequency in both sectors.

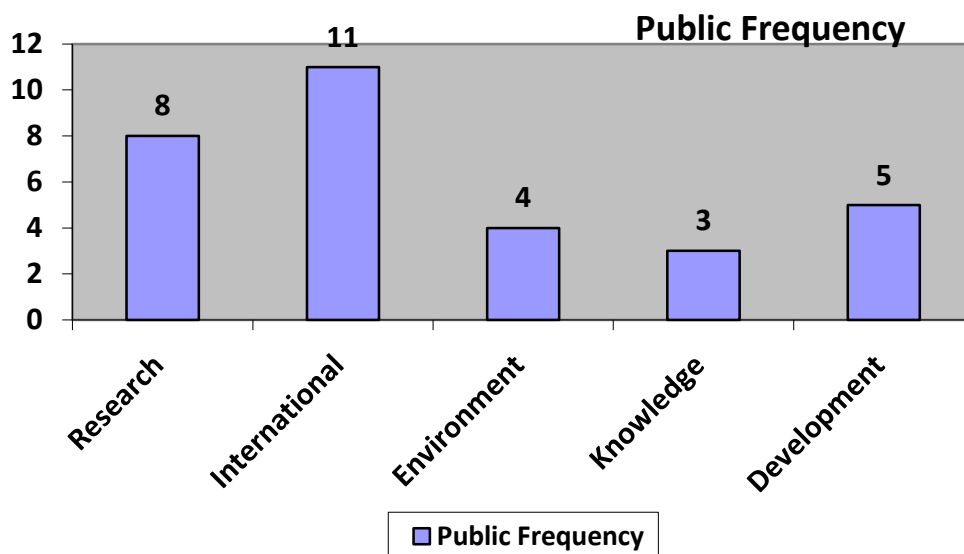


Figure 32 Most frequent verbal frames in the dynamic text (Public sector)

The most frequent word used in the audio commentary or written captions in the videos was ‘*Research*’, i.e., 17 times with a frequency nearly equal in the public and private sectors. ‘*International*’ was the second most in frequency only found in public sector universities, i.e., 11 times. ‘*Environment*’ was in the third place in terms of frequency, nearly equal in the private and public sectors. ‘*Knowledge*’ was the fourth frame with exactly the same frequency in the private and public sectors. ‘*Development*’ was also indicated in the public and private sectors at nearly the same frequency.

The most frequent word used in the still text was found to be the same i.e. ‘*research/es*’ i.e. 187 times. This shows the focus on ‘research’ in the still and dynamic text by both public and private sector universities of Pakistan. The term ‘*sustainability*’ was also a frequent word in the still text and used almost equally in the public and private sector website discourse. The idea of ‘*greening/ greenhouses/green*’ was also a noticeable term that was used by the public sector more than the private sector. *SDGs* were mentioned 6 times on the private sector websites only.

In these common frames, the theme of ‘Sustainability Sciences’ was the dominant theme, while the theme of ‘greening’ was also common in one frame. The theme of ‘Education for Sustainability’ was not frequent enough to be in the top five verbal frames of website discourse in the still text and videos. Comparing the still and dynamic text, it is apprehensible that there will be a marked difference in the frequencies of the data, as the sample available on the websites was unequal. So, the frequencies with respect to each other do not matter in the comparison, but their relationships, hierarchy, and focus in the public or private sector are what give an idea of the preferences and trends of the website discourse in the universities of Pakistan. Also, it helps in the triangulation of data keeping in view the greater data of still text as a reference to compare the dynamic text, i.e., videos. This directed to the finding that after comparing the selected top frequency verbal frames of static text to the same verbal frames of the videos, the order of frequencies came out as quite similar, as it was the same except for the frame of ‘development’. It was the second-highest in the still text, while it was the last one in the video text. This shows that videos chose displaying research, ‘*internationalization*’, ‘*environmental*’ concerns and ‘*knowledge*’ frames more than ‘*development*’ matters while in the static text, there is more room for displaying ‘development’ related content as its frequency was the second highest

in all the lexical items present in it. The private sector dominated the public sector frequency wise in terms of presence of these verbal frames signifying themes in both types of the text with the exception of two frames i.e. '*international/ internationalization*' in which public sector advocated it more than the private sector in the still text while in the videos, it was the public sector only that mentioned it. The frame of '*knowledge*' was the second one where the public sector dominated in the still text but was equal to the private sector in the videos. This reveals the focus of the public and private sectors on these verbal frames. These findings strengthen the idea that there is a paucity of verbal discourse presenting the themes of 'greening' and 'education for sustainability' on the websites of Pakistani universities.

5.6 Findings of the Common Signifiers between the Static and Dynamic Text

Following are the findings from the observations and analysis of signifiers in both private and public sectors. The list of signifiers common to both the videos and still visuals present on the websites of public and private universities in Pakistan is given below.

1. Nature (Green / green patches/ green plantation/ green areas/ green grounds/ lush green foothills/greenery/plants and trees/ plantation/ green movement/ green drive; tree/s /clouds/sky; sun/sunrise/ water/ star/ flowers)
2. Architecture (Building/s; view/aerial view/closer view/viewed/outside view/inner view/upper view/ outer view; entrance/ parking area)
3. Color Blue/ Blue font
4. White
5. Language/ s
6. Lab/s/ laboratory/ies
7. Activities
8. Book /s
9. Ranking/ ranked /Category
10. Seminar/s /Conference /Workshop
11. Classroom/s/Class/es
12. Technology/ies / students working on computer/ laptop/networks

13. Famous/famous Personality/Personality
14. Convocation
15. Red
16. Group photo/s
17. Achievement/s/ achieve/achieving / Students' achievements
18. Flag/s
19. Transport/ation
20. Degree/s

Among these 20 common signifiers of the themes of campus sustainability discourse, 9 of them are linked to the theme of 'EFS', while 8 signifiers belonged to the theme of 'Greening', but the total frequency of occurrence of the theme of 'Greening' was the highest one. Only four signifiers of both the private and public university websites were related to the theme of 'Sustainability Sciences' that were common to the static and dynamic text on them.

The most highly frequent signifier in both static and dynamic text was the category of 'Nature' illustrated through different signifiers (i.e., *Tree/s/clouds/sky/Sun/sunrise/water/ star/flowers*; the color *green* and nature's most observed feature, i.e., *green patches/ green plantation/ green areas/ green grounds/ lush green foothills/ green studded/ green shrubs/ green lawns/ green grass/ greenery*). It was more displayed by the public sector in the static text, while it was more frequent in the private sector videos.

The second highest frequent common signifier was 'architecture' i.e., 'buildings', 'view', 'entrance', and 'parking area' are displayed more by the private sector in both types of modes.

The third highest was the color 'blue' also commonly illustrated in both modes, but it was less frequent in the videos than the still visuals. The private sector utilized it more frequently in the still visuals, while the public sector utilized it more in the videos.

The color *white* was the fourth-highest frequency signifier in the videos and the third-most prominent one among the frequent still visuals. The private sector utilized it

more than the public sector in both types of visuals, which shows the preference of the private sector for this colour. *'Language/s'; 'Classroom/s/Class/es'; 'Achievement/s/achieve/achieving'* were prominent signifiers slightly more active in the videos than the still text and it was the public sector that focused this aspect more in both types of text.

The more frequent frames in the still visuals and lesser in the videos were: *'seminar/s'; 'convocation'; 'flag/s'; 'ranking/ ranked'; 'group photo'; 'workshop'; 'degree/s'; 'red'; 'conference'*.

Equally frequent in the videos as well as the still visuals was the frame of *'Transport/ transportation'*.

The frame of *'library'* was only present in the videos. The frames of *'solar power/power plant/solar panel'; 'color orange'; 'flag/s'; 'face book'; 'globe'; 'CSR-CSRP(driving), social service/ public service'; 'MOU'; 'color purple'; 'bow'* were only present in the still visuals.

5.7 Discussion

The main findings are discussed as follows.

5.7.1 Focus and Criteria for the Pakistani Campus Sustainability Website Discourse

The website discourse of Pakistani universities explored in this study showed, in different modes, the informational, promotional, and sustainable development related content about their campus in the text mainly consisting of static and dynamic text. In both types of text, the visual and verbal frames were analyzed, keeping in view the three themes of campus sustainability through different signifiers. Though the informational or promotional content sometimes overlapped with the sustainable development-related text, an in-depth look into it helped in differentiating the signifiers of the three main themes, i.e., greening, sustainability sciences, and education for sustainability. These themes were explored keeping in mind certain areas of campus sustainability discourse that are used as criteria for measuring sustainability.

5.7.2 Usage of Links/Pages by Campus Sustainability Website Discourse

The data collection from the links /pages of the websites provided most of the still and dynamic text on the main page or ‘home page’ concerning different campus themes. The home page is the first impression of the universities for the audience and is the gateway to find glimpses of campus sustainability discourse on the websites. The private sector was more vigilant in displaying signifiers than the public sector as they have to promote every aspect more than the public. Nasti, Venuti, & Zollo (2017) report about their study following Kress’ framework that

“According to the spatial map of Kress and van Leeuwen (2006), the central area of the homepages of Thai universities contains news and events information that is presented in a combination of verbal codes and visual elements to acknowledge the viewers. The top space normally portrayed the Ideal information of the institutions mottos and slogans in forms of the emblems and verbal codes embracing their brands.” (Nasti, Venuti, & Zollo, 2017, p. 48)

The second most used link having related text in Pakistani universities was ‘News and Events / Latest News and Events/ Activity Highlights’ and the third most was the ‘ORIC page’ where the public sector websites showed more data than the private sector as they are more focused on the performance and this sort of advertising leads to presenting modes and sub modes which signify themes that present the university’s idea of following the campus sustainability themes.

Separate pages, sections, sublinks about ‘Sustainability’ on the university web pages are a major signifier of having active and explicit content of campus sustainability discourse. Some universities have sustainability blogs on their websites but no blogs were found on Pakistani websites in the private or public sector. Such blogs are needed on Pakistani university websites as “Blogs allow the campus community to get involved in campus sustainability as blog contributors and readers. They depict different voices and opinions on sustainability-related topics” (Joosse & Brydges, 2018 as cited in Amey, Plummer, & Pickering, 2020, p. 5).

Very few Pakistani universities explicitly displayed the sub links or pages dedicated to their vision and plans for implementing sustainability in their campuses as

“Sharing campus sustainability plans is another prevalent method for HEIs to communicate about sustainability online. Information regarding sustainability strategic plans and goals is the most common sustainability communication feature on university websites (Ott, Wang, & Bortree, 2016). Sustainability plans are often used by universities to guide the integration of sustainability into the institution’s practices and operations” (White, 2014 as cited in Amey, Plummer, & Pickering, 2020, p. 3).

The volunteer opportunities and campus plans are easily discernable and information is accessible like in ‘Go green’ campaign and club; ‘Green Campus’ link on the homepage, solar power projects, themes of research in mountain research center, poverty alleviation and community projects etc. found on some Pakistani university websites is a proof that some efforts were done to project the sustainability discourse on these websites but a proper presentation is missing as it is a common perception that an effective campus sustainability discourse is initiated by offering more opportunities to the volunteers and displaying activities to promote the sustainability themes on their sustainability-related web pages as “This may signal that universities understand the importance of involving the campus community to further sustainability performance and the benefits of using their websites to encourage participation and engagement” (Amey, Plummer, & Pickering, 2020, p. 11). Such activities create a platform for the universities to highlight and maintain their specific campus sustainability discourse.

5.7.3 Public and Private Sector Divide on the Discourse of Campus Sustainability

The categorization of universities among the public and private sectors was also done to probe the differences or similarities due to the nature of the administration of the universities in the findings. The difference between public and private sector institutions is the budget and resources available as “Public education institutions are essentially ‘commercial non-profits’ and as public institutions, seriously undersell the cost of their product” (Szekeres, 2012, p. 173). Also, the administrative structure and the level of autonomy are different, as the private sector promises more employment opportunities,

prestige, specialised education, and exposure for the students. In short, it promises a bright future, which is the main goal of campus sustainability discourse, and thus, the signifiers and themes in the private sector discourse are important to observe in the higher education discourse as it is observed that demand for the private sector is increasing due to a lack of space in the public sector; needs of a specific religious, social, or community need or for 'better' opportunities for specialised education, more prestige, or employment; experiences both national and international; and trainings, and this is reflected in the signifiers and frames of campus sustainability discourse in the study.

Public universities show a stronger trend toward detailed documentation in static texts, which is important for transparency, accountability, and detailed planning. One drawback of this focus might be that it limits their interaction with the younger generation, who are more tech-savvy audiences, as they usually prefer dynamic, multimedia content. Private universities are more active in using videos, which can be more effective in engaging and inspiring stakeholders through storytelling and visual impact. A drawback of this type of text is that there might be a lack of depth if the videos do not complement detailed written documentation. This could lead to perceptions of greenwashing if not supported by substantial actions.

Both sectors prioritize education but approach it differently. Public universities emphasize direct 'student and faculty involvement', whereas private universities highlight 'academic excellence and research facilities'. Public universities focus on visible 'greening efforts' and 'community involvement', while private universities may integrate sustainability into broader 'branding and infrastructure'. Public universities focus on student involvement with 'technology', whereas private universities, suggesting a more specialized technological approach, highlight 'research labs'. Private universities use famous personalities in order to possibly leverage their influence and inspire action within the community.

5.7.4 Themes of Campus Sustainability in the Static and Dynamic Discourse

Over all, campus sustainability discourse themes found more frequently in the static text on the websites of public sector universities exhibited more frequent instances

than those of private sector universities. The order from the most frequent to the least frequent among the three themes in the static discourse was the theme of ‘greening’, then ‘education for sustainability’ and lastly, ‘sustainability sciences’ respectively.

It was found that the private sector showed more frequent themes of campus sustainability discourse in the dynamic text, which conveys the preference of more interactive and dynamic text by this sector as it has more freedom and resources to use such text. The order from most frequent to least frequent among the three themes was the theme of ‘sustainability sciences’, followed by ‘education for sustainability’ and ‘greening’ respectively.

Summing up the frequencies of these themes found in the static and dynamic text showed that the highest frequency was of the theme of ‘greening’ while the second highest were both the theme of ‘sustainability sciences’ and the theme of ‘education for sustainability’. The reason must be that the theme of ‘greening’ has more scope of having more number and diversity of signifiers especially among the visual ones in the category of colors and environment related content. ‘*Colors*’ are found in every visual element as well as the ‘*environment*’ which covers each living and non- living being. There is a need to show the signifiers related to the theme of sustainability Sciences and education for sustainability more in both sectors.

5.7.5 Frequent Modes of Campus Sustainability Discourse

The modes used by the still text and the dynamic text were different. The findings from both types of text have been described as follows.

In the still text, it was found that there were 50 different types of modes and combinations which further used different signifiers having frames of different themes. It is a commonly agreed idea that visual material, in different modes, can effectively enhance the interpersonal meaning between a university and its target audience. Kress’s investigation of the usage of different modes is pertinent to this observation as “Kress pays much attention to the pragmatics of communication” (Forceville, 2011, p. 2). It leaves the audience open to interpretation “a greater freedom for recipients, for instance in the order in which they access multimodal information on a printed or web page.” (Forceville, 2011,

p. 2) and “it is the combination of verbal and visual that creates the meaning of a message” (Nasti, Venuti, & Zollo, 2017, p. 137)

It may be noted that there is a trend of preference for more visual text with non-verbal mediums used more frequently by the public universities, while the private sector prefers a balance of verbal and nonverbal text in the utilization of modes on their websites to communicate sustainability themes.

1. *Photos* were a preferred mode along with other combinations of modes by Pakistani university websites as they not only construct the academic image but also the social images which are significant in the discourses of sustainability as

photographs of Asian HE campuses construct a ‘social imaginary’ of Asian HE as a: 1) technological frontier, 2) prestigious educational region, and 3) environmental and cultural paradise. These constructed visual imaginaries of Asian HE are sites for social consumption, reproduce particular imagined communities and imagined selves, and serve as scripts for action” (Shahjahan, Estera, Bae, & Sonneveldt, 2020, pp. 2-3).

These social selves pave a way to portray the ecological influences of knowledge, surroundings, economic and academic communities which signify higher education sustainability through photographic techniques and visual angles as

...highlighting and magnifying the depicted objects (i.e. campus buildings, here), allowing the objects to look more powerful in the viewers’ gaze. And (4) capturing specific European-style architecture. These photographic techniques contribute to a social imaginary of Asian HE as a robust and prestigious educational provider. By critically examining these photographic techniques, we can probe how GURs portrayal of Asia reflects the geopolitics of knowledge and furthers GURs economic agenda within platform capitalism” (Shahjahan, Estera, Bae, & Sonneveldt, 2020, p. 9).

4. The most preferred mode found in the public sector of static text endorses the idea that this sector still prefers the ‘*verbal written text*’ as it is more authentic, comprehensive and traditional mode to communicate the sustainability plans of the universities. Its high frequency in both types of texts is proof that this mode is a must- have and major signifier of campus sustainability measures and plans.

5. A visual in the form of pictures, photo, map combined with verbal written text was a common mode as mentioned in the submodes of *'Photo/s + Verbal written text'* and *'Photos+ caption'* etc., and they were utilized almost equally in both sectors, as this mode is easy to communicate and also helps in comprehending the message. This mode is time- and space-efficient, but it may, sometimes, not be fully understood unless carefully crafted.
6. *'Photo+ caption'* was also favored more as it is brief, precise and time saving in terms of composing the message and getting it completely on the receiver's end. This visual with different variations was preferred mostly by the private sector.
7. *'Logo/s', 'maps', 'banners', 'PPT slides' and 'photos with caption'* were frequent choices of the private sector which shows the orientation to display a variety of submodes utilized to present different signifiers of sustainability. The public sector showed more frequent non-verbal modes like pictograms, photo slide shows and icons etc. to convey such signifiers and themes.
8. In the dynamic text, the photos and pictures are moving modes, making colors a signifier, which is a more subdued submode as now other modes are prominent. Unlike the static text, there are fewer modes and sub-modes, as most of them are fused together in the dynamic text. Some video-specific modes were found to be used as *'audio', 'audio+ pictures', 'background commentary/verbal oral text'; 'vector buttons/pointers for site navigation of video'; 'picture+ verbal oral text (oral interview)'*.
9. *'Picture+ verbal oral text (oral Interview)'* was a prominent mode employed in the dynamic text which shows its more usage due to its interactive nature and a direct impact in the verbal and non-verbal modes combined in this mode making the signifiers more clear and illustrative.
10. *'Language'*, as a sub-mode, was mainly English but it was utilized in Arabic and Urdu in both private and public sectors. This is the mode that is used in all types of text involving many signifiers. As a medium of communication, its utilization in different types of languages is what is significant in such discourse.

11. The less usage of only *'verbal written text'* by the videos of the private sector only by the *'contact links'* and the *'social media links'* that were highlighted on the public sector websites only.

12. Comparing both types of text revealed the finding that the static text employed more sub-modes and their combination while the dynamic text had almost half of its number. That must be due to the affordance of this main mode of videos which allows more flexibility and lesser usage of sub modes by being more interactive.

13. *'Background commentary/ verbal oral text'* coming up with random pictures' was one of the major modes, having various signifiers related to the frames of campus sustainability discourse. Photos were mutually used by both modes, but the private sector used them more frequently in the static text, while the public sector was more oriented towards them in the dynamic text, but their combination, i.e. *'Photos+ caption'* was more used in the private sector videos. The *'contact links'* and the *'social media links'*, *logos using different colors, banners, and slide shows* were also in vogue to communicate different themes in both texts.

14. *Colors* as a prominent submode also emerged in the visual signifiers of campus sustainability. The color blue and after it, the color green were the most prominent colors on the websites. The use of submode of *'color/s'* separately or embedded in other modes was more frequently used by the private sector of the static text which is a proof of the fact that they are the most used signifiers to communicate the campus sustainability themes as they grab the attention of the audience and allow better illustration of the other modes combined to create an impact on the audience. The prominent signifiers in terms of frequency were color white i.e. 88 times and the color green i.e. 44 times and the color black i.e. 35 times in total. The color white, green and black were availed more by the private sector than the public sector. *'White'* was more seen in the public sector videos. Among several colors, the color yellow or mustard, red, brown were more prominent while the color orange and purple were also used in lesser frequency. The third highest was the color *'blue'* also commonly illustrated in both the modes but it was lesser in frequency in the videos than the still visuals. The private sector utilized it more frequently in the still visuals while it was the public sector that utilized it more in the videos.

As a major mode present in all types of modes, the signifier ‘Colors’ represent the theme of ‘greening’. Though ‘green’ is the most widely used color all over the world to signify environmental and sustainable development concerns but some other colors are also emerging to signify these concepts as it was observed that on the websites of Pakistani universities.

Colors are the most widely used attention seeking design elements especially in promotional, inspirational, and academic material. They are the signifiers of various moods, qualities and ideas and thus, they are an indispensable part of not only non-verbal but also verbal discourse as

“Ideas have been expressed by colour for a long time, for instance in Medieval colour symbolism, in which black stood for penance, white for innocence and purity, red for the pentecostal fire, and so on. In the early 20th century abstract painters returned to the use of colour for the expression of ideas. For Malevich, for instance, black denoted a worldly view of economy, red the revolution, while white denoted action. With such building blocks more complex ideas could then be constructed” (Kress & van Leeuwen, 2002, p. 348).

In visual discourse analysis, no discussion and observation is complete without them. Though they are essential design elements of anything natural or man-made, still “limited research has been devoted to color in relation to sustainability, or what we will term as “eco-color” (Chu & Rahman, March 2010, p. 37). Colors are an integral part of any ecology, having physical, social, and psychological dimensions, and the concept of ‘sustainability’ has three spheres too, i.e., environmental, social, and economic aspects of any ecology. So, nature, as part of the environment, has “ a significant starting point for color symbolism” (Morton, 1998, p. 8). Social and economic meanings “change over time and are considered timely. These are linked to politics, fashion, religion, myths, and geography ” (Morton, 1998, p. 8). Colors play a major role in the system of symbolism and their communication is an important aspect in the multimodal semiotic analysis.

A recent questionnaire survey brought forth the finding that a majority of respondents agreed with “the statement “Some colors are perceived as more ‘sustainable’

than others” (Chu & Rahman, March 2010, p. 41) and there is a vibe that every color reflects with respect to the concept of sustainability. This perception has been picked, especially by the fashion, clothing industry, and website content developers to present themselves in an effective way. Every organization intends to convey the concept of ‘sustainability’ in their business or work. According to the study,

Green (n=11) was the most frequently listed eco-color, followed by brown (n=9), blue (n=7) and natural (n=5). The reasons for the agreement by the majority of the respondents are closely related to the following aspects: (1) Color perception: Certain colors are more associated with nature and the environment. For example, botanical green, earthy brown and sky blue were frequently identified for such reason. (2) Color production: Colors such as beige, off-white and unbleached “natural” containing less pigments or colorants, and need fewer methods of production. In addition, the use of natural/vegetable dyeing and organic colors were often stated in the present survey to be eco-friendly practices. Relatively, they are more sustainable than colorants that use chemical dyes to produce a wide spectrum of colors and color values through synthetic means. (3) Color longevity: Colors that are considered “classic” or relatively long-lasting are “sustainable” in the sense that they seldom go out of style. The colors include black, white, grey, blue, red and beige are belonged to this category....” (Chu & Rahman, March 2010, p. 41).

For environmental concerns, colors have been used all over the world to communicate the discourse related to sustainability as

Sustainability has been a widely used topic in advertisements of products that are promoted as organic, eco-friendly, or as fair trade. The color green is currently associated with a wide variety of products and services that all promote messages of sustainability such as the logo for USDA "Organic certification and the logo for "Green-E certification for verification of renewable energy and greenhouse gas mitigation products” (DeLong & Goncu-Berk, 2012, p. 91).

The color blue and after it, the color green were the most prominent colors on the websites. Though 'green' is the most widely used color all over the world to signify environmental and sustainable development concerns, but other colors are also emerging to signify these concepts as "various slogans such as 'green is the new black' and 'get hip, get green' to raise the 'green' awareness as well as to build corporate image" (Chu & Rahman, March 2010, p. 36) are being used to bring innovations and relate to the concept of sustainability through the psychological association of the effect of colors.

5.7.6 Choices of Visual Signifiers as Frames in Both Types of Text

In this study, the most frequent signifiers common to both videos and still text present on the websites of public and private universities in Pakistan are highlighted. The 20 most frequent common signifiers of the three themes of campus sustainability discourse communicated through different modes have been filtered to reach to some preferences and general trends of putting up common signifiers in the public and private sector universities in Pakistani context. These themes have also been embedded in the SDGs outlined by the UN for developing countries. A list of SDGs along with the relevant campus sustainability themes selected for analyzing the sample of this study has been highlighted in the appendix(see pg. 308-ccclxiv). The signifiers analyzed here have also been explored through the lens of related SDGs.

The most common signifiers associated with the theme of 'EFS' and the theme of 'Greening' in nearly equal frequency indicate that there is an orientation of closeness to ecology and social or professional development in both sectors of Pakistani universities, and this is signified in the still and dynamic text on the websites. The occurrence of the theme of 'Greening', being the highest one, does signify orientation, but its context is limited to only plantation drives, colors, space adornment, and projects. There is a need to display issues and aspects of the other facets of the theme of 'greening, like energy, environmental design, campus facilities and green buildings, water conservation, recycling initiatives, cleanliness, etc. This will create awareness and drive not only in the website audience but also make the stakeholders of the campuses, like teachers, students, their parents and social circles, administrators, policymakers, etc., conscious of their efforts and

contribution to the campus sustainability discourse. Not only is there a need to develop new courses and curricula related to all three themes of campus sustainability, but the practical implementation of such content is also obligatory to achieve the SDGs and to start an effective discourse regarding campus sustainability. The theme of ‘Sustainability Sciences’ is not explicitly expressed in terms of signifiers on both the private and public Pakistani university websites, and it is only limited to stating usual university programmes and courses or research aspirations. There is a need to initiate new courses and also to resensitize or direct the current curricula regarding issues around sustainability. Apart from few exceptions, the signifiers regarding *interdisciplinary sciences, social responsibility, and specific projects or training sessions* for campus sustainability are missing in the website discourse of most of the public and private sector universities.

The order of signifiers with respect to the most number of signifiers, i.e., 16 signifiers in the static text showing the theme of ‘greening’, 15 signifiers advocating the theme of ‘Education for Sustainability’, and the least number of signifiers, i.e., 06, favouring the theme of ‘Sustainability Sciences’, indicated the preference of the signifiers in the static text by the Pakistani universities. The public sector had more inclination towards

- i. Nature
- ii. language/s
- iii. Faculty
- iv. Technology / students working on computer/ laptop/ networks
- v. Officials/ staff
- vi. Plantation/ green movement/green drives
- vii. Students’ societies
- viii. Color red

With respect to the goals, signifiers related to the greening theme suggest a strong emphasis on environmental initiatives such as plantations, green movements, and drives, which are efforts to revitalize, save, and promote sustainable use of terrestrial ecosystems. These are also actions to combat climate change and its impacts through greening activities. This aligns with SDG 15 (Life on Land), SDG 13 (Climate Action), and SDG 11 (Sustainable

Cities and Communities). The color red symbolizes passion, urgency, or specific cultural significance in sustainability messaging.

Integrating sustainability into education through encouraging student involvement in sustainability projects and highlighting the role of educators in promoting sustainability education are the goals aimed at by the signifiers related to the theme of EFS. The distribution of signifiers across different stakeholders (students, faculty, and officials) highlights a multi-faceted approach to sustainability, involving various campus groups. This aligns with SDG 4 (Quality Education) and SDG 12 (Responsible Consumption and Production).

There seems to be a limited emphasis on technology and scientific approaches to sustainability related to the signifiers of the theme of SS, i.e., computers and languages. Language/s highlight the importance of communication and cultural aspects in sustainability. These signifiers align with SDG 9 (Industry, Innovation, and Infrastructure); SDG 8 (Decent Work and Economic Growth).

The private sector propagated the following signifiers more in their static text

1. 'Colors' such as blue, white, green, black, yellow
2. architecture
3. 'university ranking or category'
4. 'Book'
5. 'Labs/ laboratory/ies'
6. Famous (anything) Personality/ famous Personality'

Along with special attention to colors, these signifiers show the framing of sustainable building practices and the design of eco-friendly infrastructure; the integration of sustainability into the institution's reputation and ranking criteria; inspiration and motivation through examples of leadership and achievements. Concerning the SDGs, SDG 9 (Industry, Innovation, and Infrastructure), SDG 11 (Sustainable Cities and Communities), SDG 4 (Quality Education), SDG 15 (Life on Land); SDG 7 (Affordable and Clean Energy) shown by colors like blue and green may represent clean energy

initiatives. SDG 12 (Responsible Consumption and Production) is represented by emphasizing on scientific labs as a sustainability practice.

The static text of both the public and private sectors in the same or nearly equal frequency displayed the signifiers that show the theme of ‘education for sustainability’ as a preferred theme, i.e.

- i) ‘Activities’
- ii) ‘Seminar/s /conference/workshops’
- iii) ‘Convocation’ and the ‘Group Photos’
- iv) ‘Solar Power/Power Plant/Solar Panel’

Seminars, conferences, workshops, convocations, group photos, and activities presenting inclusivity and collaboration highlighted SDG 17 (Partnerships for the Goals) and procured SDG 4 (Quality Education) for promoting sustainable practices. SDG 7 (Affordable and Clean Energy) is signified by the frame of solar power installations used for clean energy goals and reducing reliance on fossil fuels. They also contribute to climate action by reducing greenhouse gas emissions, i.e., SDG 13 (Climate Action).

The signifiers in different modes mentioned above are usually used by most of the university websites as they have an impact on the audience. This framing in visual and verbal modes is, in fact, motivated by the campus sustainability themes. Some of the visual themes as signifiers of campus sustainability on the websites of universities found in a study are quite similar to those in the current study as “Athletics, Sports, Architecture, Campus Scenery: Classroom Activities and Interaction, Commencement, Lab Work, scientific equipment, Fine Arts (e.g., art, music, theatre), Student Life (Academic and Campus)” (Saichaie, 2011, p. 97). With respect to the related themes of campus sustainability, the main visual signifiers have been discussed as follows:

1. The category of ‘Nature’, illustrated through different signifiers (i.e., Tree/s/clouds/sky/Sun/sunrise/water/star/flowers), was the most highly frequent signifier displayed by the public sector of the static text while being more frequent in the private sector videos. It shows the preference for nature imagery to represent their campus space. This trend of showing such imagery is not a new practice on websites, as the consumer

culture is widely influenced by it especially the foreign consumers on the websites. This is also an implicit strategy to get good rankings as a study about Asian higher education websites finds that

.... First, campus imagery highlighted elements of the natural environment conveying a sense of natural beauty. Second, campus imagery depicted ‘indigenous’ traditional architecture of buildings or other built structures, in contrast to the European architectural styles described in the previous section.This visual imaginary serves the agendas of both institutions seeking to attract students and faculty to attend and work, and rankers seeking to sell ‘virtual real estate’ to institutions to maximise advertising revenue which bolsters their platform capitalism” (Shahjahan, Estera, Bae, & Sonneveldt, 2020, pp. 12-13).

2. The color ‘*green*’, reflected in nature’s most observed features, i.e., green patches, plantations, areas, grounds, lush green foothills, lawns, etc., gives the most calming and attention-capturing signifier on the website text that was the exactly equal or nearly equal frequency in both sectors in videos. This is confirmed by other studies in the Asian context as “trees, perhaps unimportant in other imagery, become important elements of campus photography when considering their centred position within the photographs’ foreground or the amount of space they take up within a photograph” (Shahjahan, Estera, Bae, & Sonneveldt, 2020, pp. 12-13).

3. *Environmental imagery* helps set up a way to express and endorse campus sustainability discourse in terms of sharing with viewers an understanding of the area, physical ecology, and facilities, which creates an image of the university. Pakistan has been gifted with a rich environment physically and culturally among other Asian countries, as it is a common practice in Asian countries to portray their countries through the natural imagery and architectural aura of that region. A study by Shahjahan R. A., Estera, Bae, & Sonneveldt (2020) quotes an example of a South Korean women’s university among the top 10 universities in South Korea that showing photos of the campuses on a hill or green images of nature in the campus building in the background can strongly appeal to audiences comprising both current and prospective students or faculty who want to interact in a beautiful environment.

4. There is a special kind of gaze named as “a tourist gaze” which includes

carefully chosen images drawing on ‘selected elements of history, heritage, culture, ways of life, and various features of townscape and landscape’ (Bajc, 2011, p. 1466, emphasis ours). This gaze draws upon prevailing exoticising discourses of Asia that focus on Asia’s physical terrain and cultures, reflecting the attitudes and values of ‘the dominant particular’ within the current geopolitics of knowledge” (Hall, 1997 in Shahjahan, Estera, Bae, & Sonneveldt, 2020, pp. 12-13).

These aesthetics of campus life appeal to the ranking process as institutions have to attract students and faculty who feel better when they have to work in such a setting, and it is also good for ranking. The Global University Rankings (GUR) have a part to play in creating the scenario of ‘geo politics’ of knowledge as it “benefits the rankers because the more people that visit their website, the more advertising revenue they garner, and the more institutions are willing to pay the financial costs associated with GURs virtually hosting their institutional information and image” (Shahjahan, Estera, Bae, & Sonneveldt, 2020, pp. 14-15).

The signifier of ‘*Nature*’ or the elements of our ecosystem being the highest in frequency found in the static text (nonverbal and verbal) and the second most frequent in the videos in the public and private sectors shows the preference of this signifier, which indicates that the implementation of greening through this signifier is the most common practice on the websites of Pakistani universities. Some signifiers of natural ecology—trees, mountains, and water—were displayed in greater numbers than the others. The greening of campus is evident through such images. That is why most universities prefer to use photos of green areas of campus, and this also puts the campus administration into action to maintain a healthy and green environment, especially around the main buildings of the campus, as it shows “land management, organic care and biodiversity of campus grounds and surrounding lands” (Urbanski, 2018, p. 36). ‘Plantation/ green movement, and green drives’ appeared in both visual and verbal written text, where the modes of slide show and photos with captions supported the written text more in the public sector than the private sector. ‘Water’ was also a common signifier in the public and private sector

website text in terms of a feature of the natural eco system, its conservation, and energy production through it as “Based on Yarime & Tanaka (2012), campus operation and environmental performance are related to energy and water consumption, and waste and hazardous materials management” (Razman, Abd Wahid, & Muslim, 2017, p. 2).

5. The signifiers under the broader category of ‘*architecture*’ in the subcategory of a building or buildings, the entrance or parking area and the inner or outer view of the university area or buildings, displayed in the private sector universities more than the public ones, were the most frequent signifiers in the videos of Pakistani universities, while they were the second highest in the static text. Architecture is the reflection of the physical, social, and cultural ecosystem of any country. ‘*Buildings*’ are a most vivid signifier of institutional sustainability measures where the theme of ‘greening’ is the most applicable along with the other themes as

buildings are generally the largest user of energy and the largest source of greenhouse gas emissions on campuses. Buildings also use significant amounts of portable water. Institutions can design, build and maintain buildings in ways that provide a safe and healthy indoor environment for inhabitants while simultaneously mitigating the building’s impact on the outdoor environment” (Urbanski, 2018, p. 24).

University buildings give an anticipation of the kind of physical, social, cultural, academic, and psychological environment to the aspiring students. Spaces are a compulsive signifier to reflect the type of environment and this is more significant for academic campuses to gauge their sustainability. The higher use of this signifier on Pakistani private sector websites must be their potential more budget spent on outer appearance of buildings and the need to advertise their learning spaces as better spaces.

The data analysis in this study revealed that some universities, especially in the private sector, display the modern architecture of their buildings, which symbolizes their involvement in technology and points towards the theme of ‘sustainability sciences’ in action along with the ‘greening’ efforts as

images of multi-story modern-style campus buildings made of steel frames and covered with windows. Such imagery communicated Asian HEIs’ impressive stature as technologically forward institutions. Many of these

modern buildings' photographs were taken from a distance, guiding viewers to fully capture the whole building's features" (Shahjahan, Estera, Bae, & Sonneveldt, 2020, p. 7).

The cultural sites and historical buildings shown on Pakistani websites were also signifiers that represent the efforts to sustain the culture, values, and traditional ecology. A public university showed the greenery and lush green color of the Margalla Hills of Islamabad city in the visual and verbal text. A Pakistani university also highlighted the culture and historical significance of the city in which its main campus was located, i.e., Lahore. There is a certain attraction for the audience when the culture or geographical uniqueness of the places is shared on the websites of higher education institutions, as a private Pakistani university shared the beautiful places and historical buildings of the city of Lahore in Pakistan while a public university displayed the lush green areas of the capital city in its visual and verbal text. Another public university mentioned the mountainous region and the corresponding culture of research in that area, while another public university showed its events about Pakistani cultural diversity on its websites in both visual and verbal form. Tomášková (2015, p. 97) found that the cultural diversity among countries varies, and for individuals from varying (and distant) societies, photographs and videos can serve as a critical source of information concerning distinct locations, activities in and out of university lessons, lifestyle, and destinations. The incorporation of non-verbal elements may be necessary to effectively reach the diverse audiences, with emphasis on their representational and inter-relational significance as opposed to a purely decorative function.

6. *'Language/s'*, as the medium and the term itself were another common signifier. It is basically a verbal mode on the websites but also has a visual effect deployed in the universities' logos, names, slogans, newspaper cuttings, captions, and quotes. It was also used as an option to interact with the audience or for translation in the given languages. The languages that were used on the websites of Pakistani universities for communication were found to be English, Urdu, and some instances of Arabic language. The public sector presented it more actively than the private sector. Urdu is the national language of this country. So, the option of having this language on the website is not only a way of attracting a large audience but also paving the way to initiate the discourse leading to

sustainability goals in a more effective way. Also, Urdu verbal commentary in the dynamic text, i.e., videos, made it more interactive and time-saving for the audience to understand the basic sustainability measures of the university. The quotes highlighted in the language also bring motivation and inspiration, which are significant in expressing the values to be followed in the campus sustainability discourse. Arabic language with translations is not only reflective of the religious inspiration for social sustainability but also values criteria for campus sustainability.

In the public sector of videos, English is the medium of language that is mostly used on the websites of universities, and this trend is also found on Pakistani websites. Along with body language (non-verbal modes), communication needs verbal language consisting of both oral and written mediums, and this is part of the discourse on academic websites that seek a local, national, as well as international audience (Tomášková R. , 2015, p. 96; Tomášková R. , 2011) to take part. For this purpose, it is the language of communication on almost all of the Pakistani university websites. The nature of ‘language’ as a signifier involves frequently used frames of ‘internationalization’ and communication of ‘knowledge’ that are associated with the theme of ‘sustainability sciences’ in campus sustainability discourse. The role of language cannot be denied, as

The term ‘international university’ also evoked associations with academic excellence, with these being mostly linked to metrics commonly used to measure a ‘world class university’ such as the reputation of an institution. This could be a reflection of current discourses that privilege performativity over more values-based approaches to internationalization (Young, Handford, & Schartner, 2016). The promotion of languages other than English was identified as playing a relatively minor role in making a university ‘international’ which is perhaps not surprising as this study was conducted in an Anglophone institution where English is the default medium of instruction.... Finally, opportunities for intercultural learning were identified as a key feature of an ‘international’ university, pointing to at least some awareness of more ‘transformative internationalisation’” (Robson, 2011 as cited in Schartner & Cho, 2017, p. 463).

On a few Pakistani university websites, it was observed that more than one language option was given, as in a study “Some students also pointed to the need to develop a multilingual university website if an international ethos is to be achieved: Especially considering the University now has campuses abroad now, it would be interesting to see them developing the website in other languages as well, you would think that would kind of go hand in hand with opening a campus in another country” (Schartner & Cho, 2017, p. 471).

This signifies the campus sustainability measures in terms of development process started for multilingual class rooms and audiences for the higher education discourse. The inclusion of language and color red, as signifiers, suggests that cultural and communicative elements play a significant role in how sustainability is approached and promoted.

7. *‘Faculty’* was the common signifier displayed mostly as group photos and in the verbal text about promoting, developing, and their involvement in different activities propagated in the public sector more than the private sector static text. ‘Officials/ staff’ involved in different academic and extracurricular activities of the university were visible in the photos with captions and some verbal text. That was also more in the public sector than the private sector. It is a signifier of taking measures of sustainability for the betterment of teachers in education.

8. *‘Seminar/s /conference/workshops’* was the signifier used almost equally by both sectors as photos of such events and as verbal written text in the static text. ‘Seminar’ was more frequent in the private sector videos, while ‘conference’ and ‘workshop’ were more highlighted in the public sector videos. It is a signifier showing the academic activities conducted for sustainability.

9. *‘Technology / students working on computer/ laptop/ networks’* were the commonly used visual and verbal signifiers in equal numbers in the public and private sector universities, but the number of occurrences in the public sector was higher in static text as well as in videos. The visuals of ‘Technology/ technologies / students working on Computers/Laptops/Networks’ symbolize that ‘sustainability sciences’ are at work. It was also observed in a study of Asian university websites as creating an image of Asia as a modern technological location or frontier because “A technological frontier imaginary thus creates a site for multiple imagined selves (i.e. students and faculty who wish to belong

amidst newest technology and cutting-edge knowledge” (Shahjahan, Estera, Bae, & Sonneveldt, 2020, pp. 6-7).

10. *'Book'*, as a visual and verbal symbol, has been used almost equally by both the public and private sectors in terms of frequency of occurrences, but the number of private universities utilizing this signifier was greater than the number of public sector universities. A book is a symbol of knowledge, scholarship, and enlightenment, illustrating the theme of sustainability sciences used in campus sustainability discourse.

11. *'Activities'* in various modes, i.e., photos, slideshows, pictograms, banners, etc., at exactly equal or nearly equal frequency in both the sectors in videos as well as the static text. *'Transformation'* and *'well-being'* are not possible without action, and these two features are the core concepts behind the theme of *'sustainability'*. So, showing *'activities'* both in verbal and visual modes with respect to these concepts is also common in themes of campus sustainability discourse. Many activities, like different events, awareness programs, workshops, entertainment fund-raising activities, and faculty and students shown to be involved in curricular, co-curricular, and extracurricular activities, are pictured in the verbal and non-verbal text. This builds up their identity and, at the same time, gives a glance at the measures concerning the sustainability of campus as well as the type of social rubric emerging on campus as students in groups or as individuals are representative of different social variables, e.g., their backgrounds, culture, social class, ethnicity, gender, age, interests, etc. The visual mode brings up the agents of different activities, among which *'students'* are the most highlighted agents as they make up a larger percentage of the audience as

“The variety of student portraits mirrors the desired variability of the prospective students – the target audience of the websites and provides a rich choice of images they can identify with. Along with the positive and energetic atmosphere the photographs display, the images contribute substantially to the promotional objectives of the website presentations. The ideational meanings carried by the images are bound up with the meanings brought by the verbal mode; the images visualize the qualities and values highlighted in the texts, and

thus confirm what the texts describe: a vibrant, active atmosphere, a hands-on learning experience, a closely-knit academic community of diverse individualities, an international and multicultural university environment (for an analysis of the verbal texts see Tomášková 2011b). The dominance of students in the images, and the exclusion of teachers, also corresponds with students' agentic role" (Tomášková R. , 2015, p. 86).

12. '*Achievement/s/ achieve/achieving / Students' achievements*' shown in the form of visuals or pictures is primarily promotional in nature but implicitly, it signifies an attempt to show campus sustainability in the quality of education and the learner's performance in curricular, co-curricular, and extra-curricular activities. They were more highlighted in the public sector videos on Pakistani university websites.

13. '*Students' societies*' were indicated more by the public sector than the private one. It was mainly used in verbal written text as well as visually in the form of the logo of the offices of clubs and societies, showing links or lists of clubs and societies, photos, and a slide show of their events and activities.

14. '*University ranking or category*' in terms of performing well in any area was also a more frequently recurring visual displayed by the private sector in static text and videos. 'Activities' and 'rankings' signify the theme of 'education for sustainability'. Rankings, on Pakistani university websites, mentioned with photos such as buildings, power point presentations, pictograms, graphs etc., signifies the prestige factor in sustainability discourse as

When combined with the explanation of the university such as 'featured among the world's top universities in 30 subjects' (Top Universities. "QS Study in China", 2019), these images of seemingly gigantic buildings are fluidly linked to prestige and high standings in HE" (Shahjahan, Estera, Bae, & Sonneveldt, 2020, p. 9).

15. '*Convocation*' is the event of celebration of the academic achievements of the students and the institution. It is a sign of educational sustainability in a subtle way, though the prime concern is mainly promotional in nature. 'Convocation' and 'Group Photos' were

the events displayed commonly in the public and private sectors, almost equally in the form of photos, slide shows, visuals with captions, or on a video portal.

16. '*Group photo/s*' show the identity of the institution, and they symbolize inclusion of social groups carrying out different activities in the institution. The interpersonal meanings that such photos convey also display the positive and active potential role played by the agents of the university, i.e., the social groups, which are beneficial for building up the campus sustainability discourse. It acts as a signifier of the unification of different groups on the platform of the university, which is the source of their identity and survival, as it has been found that student images, both individual and group photographs, personalizes strongly and go beyond the verbal strategies used in formal university discourse to create a sense of familiarity. This diverse group of students emanates positive energy in the photos, setting the tone for a warm, inviting relationship between the viewer and the university's online presence (Tomášková R. , 2015, p. 88). It was more frequent in the private sector videos where students are shown to be highly interactive and thus, it builds up the image of campus sustainability.

17. '*Degree/ s*' is a physical proof of students' achievements and academic prosperity. It is a symbol of academic wellbeing and wide spread education in different areas of a country. The sustainability through enhancing academic qualifications is symbolic of the influence of the theme of education for sustainability. In the public sector of videos, it is a prominent visual.

18. '*Labs/ laboratory/ies*' were adverted in the modes of photo with captions; verbal written text, and video on the websites more found in the private sector, while only one public university used it once. 'Labs' are the places where scientific research takes place, and thus, these are the sources to propagate 'sustainability sciences'. As a place, it creates an environment for the stakeholders to carry out the measures of campus sustainability discourse. Also, displaying the photos of such areas of university helps the students to accommodate themselves to the environment, and thus, showing these areas of Pakistani universities on the websites signifies the 'greening' theme at work as "... within each of the university websites the sum of the photographs provides a varied and colorful mosaic of settings: yards, classrooms, labs, common rooms, sports centres, parks etc." (Tomášková R. , 2015, p. 86).

Being third most frequent as visuals with verbal illustration in the videos and rather lower frequency of appearance in the static text on websites of Pakistani universities, this signifier was also a preference of the private sector in terms of frequency. This suggests the trend of highlighting more spaces and architecture in their text by the private sector of Pakistani university websites.

19. Utilizing the modes of photo, verbal written text, and visual slide show, it came out in the form of sketches or pictures of famous politicians, photos of famous places, verbal text about personality development, personality as an inspiration and symbol of some positive work, and famous quotes was the common signifier of '*Famous (anything) Personality*' displayed more frequently by the private sector in exactly equal or nearly equal frequency in both sectors in videos. Putting up famous personalities and their verbal messages or quotes on websites works as brand ambassadors or metaphors for conveying the purpose of any company or organization. Educational institutions also put up pictures and messages of these personalities to accentuate their brand image and illustrate their vision, mission, uniqueness, or identity. It is a well-established fact that association with a well-established personality may augment preference, loyalty, and the usage of a product and/or a service (Siguaw, Mattila, & Austin, 1999).

20. '*Solar Power/Power Plant/Solar Panel*' as a visual allied with captions and verbal written text was highlighted in an equal number of universities in the public and private sectors. A private university known for its sustainability research centre adverted it more than the other universities. Power plants and recycling processes initiated in campus projects have been a new signifier to be included in the campus sustainability discourse of many universities around the world. A study surveying 30 international green universities' websites using web content analysis methods about the common initiatives for sustainability found that "the common initiatives frequently implemented by most of the universities include 'Provide bin with clearly marked signs to increase the number of recycling items', and 'Generate electricity on campus by establishing power generation plants' with 87% and 83% respectively" (Razman, Abd Wahid, & Muslim, 2017, p. 1).

21. '*Class rooms/classes*' are the main places over which and on which the campus sustainability discourse takes place. These rooms are an integral part of creating the university's environment. The static text showed this signifier in the private sector more,

while it has exactly equal or nearly equal frequency in both sectors in videos on Pakistani websites. One approach is to make the classrooms a hub for initiating such activities, which act as a hub of sustainability discourse on campus as “The Campus as Classroom approach is a winning blend involving students and other people in environmentally sustainable facilities management” (Wild-River, 2012, p. 199). The visual discourse of class rooms shown on websites is a sign of learning and teaching sustainability at the campus, as in this approach

as action learning classrooms for studying sustainability has been developing steadily during this decade. It has emerged as a key opportunity for connecting the people at tertiary institutions to campus facilities and services in an effort to reduce environmental impacts of operations and enrich the learning” (Wild-River, 2012, p. 199).

22. On campus facility for the mobility of students, teachers, staff comes in the form of signifier of ‘*Transport/ transportation*’ which signifies efforts of ‘greening’ as

“Institutions can positively impact human and ecological health and support local economies by modeling sustainable transportation systems. Transportation related emissions and pollutants contribute to health problems such as heart and respiratory diseases and cancer. Due to disproportionate exposure, these health impacts are frequently more pronounced in low income communities near major transportation corridors. In addition, fuel extraction, production and distribution can damage environmentally and culturally significant ecosystems and may financially benefit oppressive governments” (Urbanski, 2018, p. 43).

This signifier was the focus of videos as well as the static text in the public sector only. This gives the idea that the public sector is more aware of this measure of sustainability. Transportation, buildings, and energy efficiency are the focus of the theme of greening, which requires talking about the whole management of the environmental system as the content of campus sustainability discourse as Alshuwaikat & Abubakar (2008) mentioned that “Environmental Management System (EMS) covers two areas, namely (i) environmental management and improvement, which relates to waste minimization,

energy efficiency, and environmental conservation, and (ii) green campus, which aims to promote construction of green buildings and transportation facilities” (Razman, Abd Wahid, & Muslim, 2017, p. 2).

23. *Social media links* were also a common signifier in the form of different contacts given for communication on different social networks. Volunteer opportunities, administrative email addresses, email subscription opportunities, blogs, and social networking are among a few interactive features on websites (Amey, Plummer, & Pickering, 2020, p. 5). Most of Pakistani universities have their social media account addresses on their official websites, which is a signifier of inculcating the theme of ‘Sustainability Sciences’, to initiate the sustainability discourse by involving technology and knowledge as fundamental features as the utilization of social media outlets, such as Facebook, Twitter, Instagram and YouTube, has become prevalent. Kelleher and Sweetser (2012) and Carpenter et al. (2016) both discovered that the leading universities in the USA utilize social media tools to promote action towards environmental consciousness within their university population (Amey, Plummer, & Pickering, 2020, p. 5).

‘Facebook’ was one signifier having lesser frequency than other signifiers in the static text only but not found in the videos. More references to the Facebook page on many Pakistani university websites indicate that it has a link to the university’s sustainability as “Facebook can facilitate instant communication with the campus sustainability and effective spread information regarding sustainability” (Hamid et al., 2017 in Amey, Plummer, & Pickering, 2020, p. 5).

5.7.7 Verbal signifiers as frames in the text

Along with the visual signifiers, the verbal signifiers form the frames in the written or oral text, which makes it significant to observe and explore the linguistic frames used to constitute the campus sustainability discourse. The written or oral verbal text only has the keywords, which need to be noticed for deciphering the lexical framing in the discourse. Delimiting the word list to campus sustainability buzzwords, an edited list was prepared by keeping only the words that relate to these three themes and the overall concept of campus sustainability themes. This brought out a list of 17 total words, including the top five most frequent words covering these themes, along with their corresponding word

forms and the main terms like sustainability, '*sustainable development goals*', and '*greening*'.

Being common to both the public and private sectors, the theme of 'greening' prevalent in 21 keywords making verbal frames in the videos shows the highest orientation of this theme in the dynamic content relevant to the campus discourse. The theme of 'Sustainability Sciences' being the second highest, i.e., nineteen times, and then 'Education for Sustainability', i.e., seventeen times in total in both sectors, are the preferences for the verbal signifiers of the themes of campus sustainability discourse in the videos.

Concerning the overall statistical observations, frequency-wise, the highest frequency of verbal frames in the videos was associated with the theme of 'Sustainability Sciences'. The theme of 'Education for Sustainability' followed it, while the theme of 'Greening' was found at a rather lower frequency in the top 10 frames, i.e., in 'Environment' with the same frequency in both sectors. This reversal of themes might be again due to the fact that more signifiers for the theme of greening exist while their explicit frequency in the form of verbal language is less, as it is understandable from the non-verbal signifiers of the theme. It is because of the 'knowledge' content and promotion of different disciplines that it is more convenient and important to convey in the interactive mode of video that the theme of 'Sustainability Sciences' took on a greater number of signifiers and frequency too. The theme of education for Sustainability usually has constant signifiers and frequencies, as it is all about activities, events, values, etc. shared in the campus discourse.

The focus of verbal discourse common in both the private and public sectors of the videos at either the same or nearly equal frequency was varied. With respect to purpose, the frames of '*Development*'; '*Knowledge*'; '*life/lifelong*' were in more focus. SDG 4 (Quality Education), SDG 11 (Sustainable Cities and Communities); SDG 8 (Decent Work and Economic Growth); SDG 3 (Good Health and Well-Being); SDG 9 (Industry, Innovation, and Infrastructure); SDG 1 (No Poverty); SDG 14 (Life Below Water); SDG 15 (Life on Land) relate to these frames.

The places like '*Library/ies*'; '*Cafeteria*'; '*Class or classrooms*'; '*Auditoriums*' and facilities like '*Buses*' were more highlighted. These relate to SDG 15 (Life on Land),

SDG 11 (Sustainable Cities and Communities); SDG 3 (Good Health and Well-Being); The nationalities like '*Chinese*' were more prominent in the learning profile. The values and activities like '*civil rights or citizenship*'; '*Seminars*' were more prevalent. These frames relate to SDG 11(Sustainable Cities and Communities); SDG 4(Quality Education); SDG 10 (Reduced Inequality; SDG 16 (Peace, Justice, and Strong Institutions); SDG 17 (Partnerships for the Goals) respectively.

The theme of 'Overall Campus Sustainability Discourse' consisted of verbal frames of *Campus/es*; *Life / Lifelong* in the video text. The theme of 'Education for Sustainability' followed the frames related to integral elements of academic and social ecology i.e. *Faculty*; *Management*; *Social*; *Society*; *Citizen/civil*; *Islamic*, *Cultural* frames. The activity and qualification/status frame were highlighted in *Skills*; *Degree/s*; *Ranked / ranking*; *Curricular*; *Service/ services*; *Training/ trained*; *Seminars*; *Workshops*; *Convocation*; *Responsibility*.

The theme of 'Sustainability Sciences' was obvious in the verbal frames of the video content as *Research*; *Sciences*; *Scientific*. The technical knowledge and advancement as aims with frames of *Technology /tech/ technical/technological*; *Computer/s/ computing*; *Digital*; *innovation*. The mediums and disciplines like *Language/s*; *Linguistic*; *English*; *Chinese*; *Urdu*; *Art /s*; *Artistic*. The purposes were oriented towards frames of *Knowledge*; *Development/ develop/ developed*; *International*; *Literary*.

The theme of 'Greening' was focused on areas like *Environment*, *Health*, *Planting*, *Buildings* and facilities like *Transport*, *Bus/es*. The places focused were *Lab/s/ Laboratory/ies*; *Library/ies*; *Cafeteria*; *Auditoriums*; *Gym*; *Mosque*; *Class/ classroom*; the nature appearing in *Sky /skies*; *Earth*; *Lush*; *Mountain*. The colors like *Green*; *Blue* appeared in the video content.

As the verbal data of the static text in the selected sample produced a long list of verbal signifiers, the common signifiers in both public and private sector have been highlighted and the top five verbal frames of static text in common to the verbal frames of videos have been analyzed in the current study to highlight the main focus of verbal

discourse with respect to the corresponding three themes on the websites of Pakistani universities.

The focus on verbal frame of *'research/es'*, in the still and dynamic text by both public and private sector universities in Pakistan, is the most frequent, and it is noticeable that the theme of 'sustainability sciences' takes over the verbal discourse on the most websites of Pakistani higher education. This theme also re-emerges in the second-highest common frame, i.e., *'International'* was the second most frequent, being more prominent in the public than the private in the static text, while it was only found in the public sector videos. The third prominent frame, i.e., *'Environment'*, was equally emphasized in the private and public sector videos, while the private sector of static text highlighted it with a bit more frequency than the public. *'Knowledge'* was also equally emphasized in the private and public sector videos in terms of frequency while public sector static text emphasized it more. *'Development'*, in nearly the same frequency in the public and private sector, were framed both in videos and static text. Other important verbal frames found only in the still text were *'sustainability'*; *'greening/ greenhouses/green'*; *'SDGs'*.

In these common top most frequent frames between the public and private sectors, the theme of 'Sustainability Sciences' again took the lead, while the theme of 'greening' was also common in one frame. Interestingly, the theme of 'Education for Sustainability' was not frequent enough to be in the top five verbal frames of website discourse in the still text and videos. Comparing the still and dynamic text, it is only natural that there will be a marked difference in the frequencies of the data, as the relevant available content on the websites is also unequal. So, the analysis of frequencies with respect to each other doesn't matter in the comparison, but their relationships, hierarchy, and focus in the public or private sector are what give an idea of the preferences and trends of the website discourse in the universities of Pakistan. The ratio of frequencies came out quite similar, except for the frame of *'development'* in the still text and videos. It was second highest in the verbal frames of still text, while it was the last one in the video text leading to the inference that the video text preferred *'research'*, *'internationalization'*, *'environmental'* concerns and *'knowledge'* frames more than 'development' matters while in the static text, there is more room for displaying *'development'* related content. Institutions develop their sustainability plans in which their own local ecology, climate, financial resources, strengths or

weaknesses, and knowledge become the key frames for their discourse in that direction as “it is not denying that factors such as self-awareness, knowledge, finance, leadership, organization, technology, climate, and etc. also affect the selection of sustainability initiatives to be implemented” (Razman, Abd Wahid, & Muslim, 2017, p. 5). The private sector dominated the public sector frequency-wise in terms of the presence of these top five verbal frames signifying themes in both types of text, with the exception of two frames. The first one was *‘international /internationalization’* in which the public sector showed more concern both in the still text and in the videos. The frame of *‘knowledge’* was the second one where the public sector dominated in the still text, while it was equal to the private sector in the videos on the websites. Knowledge, programs, disciplines have been mentioned by Pakistani universities in verbal form mostly with non-verbal illustrations in different modes, which serve as a sign of modernity and technical academic support for sustainable steps, as this simply goes with the theme of ‘sustainability sciences’. Visual presentation of “particular disciplines in mind (i.e. business or engineering), or administrative units (i.e. libraries, student services) to signify their modern or ‘world-class’ nature” (Esteria & Shahjahan, 2018; Stack, 2016 as cited in Shahjahan, Esteria, Bae, & Sonneveldt, 2020, pp. 15-16).

Masroor & Khattak (2023) is of the view that “a clear-cut boundary between advertising and education is fractured” (p. 2) and The university webpages have a multimodal discourse that has more promotional purposes than informational purposes, both in the public and private sectors, in the Pakistani higher education context. Having a capitalist ideology and investing in entrepreneurial ventures is an obvious indicator of marketization strategies in discourse, as it is inevitable due to globalization for a knowledge-based economy and “the critical need for generating revenue for their sustenance” (Masroor & Khattak, 2023, p. 20). The need for sustenance is the core frame of discussion in the campus sustainability discourse. The sustainability of a campus is based on moral and social values along with economic security. It means that even the promotional and marketizing strategies are part of the sustainability measures and “The challenge is to sustain this dual identity without undermining the quality of education” (Masroor & Khattak, 2023, pp. 20-21).

The most frequent frame used across the discourse in sustainability discussions highlights the central role of academic research. This indicates that both public and private universities prioritize the generation and dissemination of knowledge. Concerning the theme of campus sustainability, the focus is on the theme of "sustainability sciences" which prominently shapes the verbal discourse, showing a commitment to addressing sustainability through scientific inquiry and education. The analysis reveals the focus of the public and private sectors on these verbal frames on the websites in both types of text. These findings strengthen the idea that there is a paucity of verbal discourse presenting the themes of 'greening' and 'education for sustainability' on the websites of Pakistani universities. This suggests a strong institutional emphasis on applying scientific methods to tackle sustainability challenges.

More prominent in the public sector static texts and present in only public sector videos, "International" is the second most frequent frame, which implies that public universities have a stronger emphasis on international collaborations, global perspectives, and partnerships in sustainability efforts. Equally emphasized in public and private sector videos, the frame "environment" ranks third in the static texts, with a slightly higher frequency in the private sector. This congruence indicates that environmental issues are a key concern across both sectors, where private universities are also giving them significant attention in their static content. On the other hand, the frame "knowledge" is equally highlighted in videos by both sectors but is more emphasized in public sector static texts. This suggests that both sectors value the role of education and knowledge dissemination, with public universities placing additional emphasis on it in their written content. The frame "development" appears with nearly the same frequency in both sectors' videos and static texts. This indicates a shared commitment to sustainable development goals and initiatives across public and private universities.

From the findings, it is inferred that there are some unique frames in both texts. For example:

The presence of the frame of "sustainability" found only in the static text signifies a fundamental focus on sustainability itself as a core theme. This indicates that universities often use static text to communicate foundational principles and commitments.

Specific terms related to greening initiatives appear uniquely in static texts, e.g., in the frequent terms like “Greening/Greenhouses/Green”. Similarly, SDGs (Sustainable Development Goals) were found only in the static text, emphasizing the alignment with global sustainability frameworks. This reflects an alignment with international sustainability agendas and showcases commitment to global goals. These terms suggest practical, on-the-ground efforts towards creating more sustainable campuses.

With respect to sectors, it can be inferred that the public sector tends to focus more on international collaborations and knowledge dissemination, as indicated by the higher frequency of these frames in their discourse. The private sector equally prioritizes environmental issues and greening initiatives, with a slightly higher focus on these aspects in static texts.

With respect to the medium and modes of communication, common frames like "environment," "knowledge," and "development" are equally emphasized across both sectors, which suggests that these are the key themes communicated through dynamic media. Static texts delve deeper into specific commitments like sustainability, greening initiatives, and SDGs, providing a detailed narrative on these topics.

The discourse on campus sustainability in Pakistani higher education highlights a comprehensive commitment to sustainability through research, international collaboration, environmental focus, and knowledge dissemination. Both public and private sector universities demonstrate strong engagement in these areas, with nuanced differences in their emphasis and communication mediums. Public universities appear more geared towards international and knowledge-related themes, while private universities show a slightly higher focus on environmental and greening initiatives. This multifaceted approach underscores the importance of sustainability in higher education in Pakistan and reflects a strategic alignment with global sustainability goals.

This chapter gives a semiotic and linguistic account of all the findings from the data analysis chapter. It discusses these aspects concerning the way different modes of websites reflect campus sustainability themes. The most frequent signifiers in both sectors

have been elucidated in light of the previous studies on this topic. The next final chapter will outline the main conclusions and the trends or orientation of findings towards specific signifiers in the multimodal landscape of Pakistani university websites.

CHAPTER 6

CONCLUSIONS & RECOMMENDATIONS

This chapter concludes from the observations, analysis, and findings of the study and summarizes the main takeaways of the discussions on the research. It also reveals some limitations of the current study. It also recommends some themes and sub-topics that can be explored for future studies related to this field.

6.1 Summary of the Main Inferences

Websites are spaces where different modes are integrated to display the material that can emphasize the identity, orientation, reputation, and goals of a university, along with the necessary information, official functioning, and current news about that university. This means that websites are the sites that not only promote the universities but also project the image of how sustainable universities are and how they do plan to enhance the sustainability discourse at their campuses. It was observed in the process of collecting the data and delimiting the sample that the universities of Pakistan are more prone to displaying only very necessary information in the form of verbal text and visuals on their websites, and they make less effort to display sustainability themes in their discourse explicitly. Voluntary activities are the main source of implicit discourse as "there are no indications of strong support and incentives from the government as is the case in such places as UK, Finland, and Canada" (Udensi, 2023, p. 90). That is why there are differences in the way the private and public sectors prefer the signifiers of campus sustainability. They develop their own sustainability policies, keeping in mind their resources and government support or interference. For a better display of an explicit discourse of sustainability, the signifiers of different initiatives such as advocating a professional context approach to sustainability, fostering training programs, and managing environmental groups (Grady, 2017, p. 187), etc. must be promoted on the websites on their separate webpages.

Following are the conclusions given in the form of points for the relevant questions.

Answer to Question 1

Presentation of Campus Sustainability Discourse on Pakistani University Websites

in terms of the static and dynamic texts and modes in both sectors

1. The websites of Pakistani universities have been observed to include verbal and nonverbal modes shown by certain signifiers, which generate a lot of static and dynamic data that are linked to campus sustainability discourse directly or indirectly. The home page was the most utilized page for indicating the discourse, which is a signification of campus sustainability themes. Though it is also the page that exhibits a lot of promotional content to attract the attention of the audience, it is also the one that indicates the main orientation of the university and acts as a signpost by providing sub-links related to the themes of campus sustainability. Out of the 12 websites of the universities, only one center was shown to be active and specially built to show the campus sustainability discourse directly or explicitly. This means that the overall sustainability discourse is very subtle and implicit, even if it is on the websites of Pakistani universities. Although very serious steps to follow and achieve sustainable development goals are taken all over the world, especially by third-world countries like Pakistan, the well-established and tangible actions to set up an environment or platform for the development of campus sustainability discourse are still missing on the websites. The universities are more likely to display content that is promotional in nature to attract the audience, and the different modes that do signify the themes related to campus sustainability discourse are still missing.

2. The private sector has some freedom in this regard, but they still have to make more efforts to show it publicly when even having such discourse within their organization, except for a very small number of private universities. Only one university among the six well-known private universities showed the details and set-up of the sustainable development centre and the research about it. The public sector was more active in implementing the 'greening' theme in the form of awareness drives, international partnerships, and CSR initiatives, and the concept of 'sustainability' was defined in terms of their projects on a university's website. The static text was put more into use by the public sector than the dynamic text, which signified the three themes of campus sustainability in the focus of this study.

3. The theme of 'greening' was more prevalent in the static text of public sector website discourse, and it was a highly frequent theme observed through different signifiers. This leads to the conclusion that the content about 'wellbeing' and 'environment' was more focused on the public sector and their choice of static text. The dynamic data that was limited to videos for this study was preferred by the private sector more. In this mode of text, the highest observed theme was 'Sustainability Sciences'. This confers the dynamic media captured in the areas of sustainability sciences in verbal and visual form to display their sustainability efforts for the campus.

4. Combining the results of both types of text observations leads to the final result, in which the theme of 'greening' was found to have the highest frequency, followed by the themes of 'sustainability sciences' and 'education for sustainability'. All these themes happened to be statistically equal in terms of combined final frequency. This steered the idea that the theme of 'greening' is applicable through many signifiers within the modes due to the fact that it is a very vast frame encompassing many subthemes.

5. The most preferred modes, combining the types of all the submodes, were found to be of two types, i.e., the 'non-verbal mode' only or the 'verbal written mode' only, which were the most frequent modes in the static text while they were the second highest in the video text. The preference for such modes leads to the presumption that Pakistani universities are relying more on the visual-only modes, and explicit illustration of the content is still avoided, especially with respect to the themes of campus sustainability discourse. The combination of nonverbal and verbal modes is still seen to be treated casually in terms of putting up campus sustainability content on the websites. The mode combinations of a 'nonverbal visual along with the verbal written text' or 'captions' were also the most prominent combinations of integrated modes. These are more used by the private sector of Pakistani university websites. This indicates the trend of public universities using more visual text, while the private sector prefers a balance of verbal and nonverbal text.

6. The mode of a 'visual(s)' along with 'caption(s)' being the highest in frequency was utilized more in the private sector, while the public sector taking precedence in using the mode of a 'visual' without any captions again verifies the trend of private Pakistani

universities, which suggests more focus on verbal integration with nonverbal modes while public ones are less focused on this aspect.

7. The number of modes in the videos, as compared to the still text, being lesser in number, was a subsequent result of videos as dynamic text being put scarcely on academic websites and the nature of this mode, which needs lesser integration with the other modes. Even then, from the results, it was very clear that the static text and the dynamic text have many commonalities in the visual and verbal signifiers that act as frames of the campus discourse and are helpful in detecting the current focus of the universities.
8. After analyzing the still and dynamic data in different modes, it was concluded that many types of modes and their combinations were utilized on Pakistani university websites. A total of 66 types of modes and mode combinations were found to be of both still text and videos. The private sector had a greater share in using a variety of modes than the public sector websites.

Answer to Question #2 and Question # 3

The visual (verbal + non-verbal) signifiers associated with the campus sustainability themes on the Pakistani university websites: common and different signifiers of both private and public sectors

Overall, the signifiers related to SDG 4: *Quality Education*; SDG 11: *Sustainable Cities and Communities*; SDG 9: *Industry, Innovation, and Infrastructure*; SDG 17: *Partnerships for the Goals* SDG 8: *Decent Work and Economic Growth* were the most prominent in the text.

1. Both verbal and nonverbal modes of text were utilized to signify the campus's concerns about environmental and wellbeing aspects. The nonverbal signifier that is 'colors' symbolising the theme of 'greening' contributed to the major frequency of this theme present, as they are the primary source of occupying space on websites and the presentation of everything placed on them, either strategically or aesthetically. The second highest observed theme, 'Sustainability Sciences', must be due to the fact that most of the text in different modes on academic websites is mainly about the programmes and research

orientation of the universities, as it is the primary goal, especially in the SDGs mentioned for campus sustainability assessment. The websites of Pakistani universities do indicate research and innovation goals most of the time in the ORIC section of the websites, where most of them were observed to be indicating this theme but not displaying any specific research paradigms and goals, especially in terms of campus sustainability concerns.

2. 'Education for sustainability' covers campus activities and professional, moral, and social development, which is displayed but not in the frequency as the other two themes are given preference. This suggests the conclusion that the signifiers of this theme still need to be enhanced on the websites of Pakistani universities. These signifiers act, in fact, as frames for the discourse as they set up the orientation of the themes of campus sustainability. These visual and verbal thematic areas are the cognitive signs that cohere together to portray the intended and interpreted meaning of the communicators.

3. The same signifiers in both types of text vary in frequency and their placement in the private and public sectors but their similar ratio is still noticeable. The rounded-off signifiers were 20 in number which means that there is a similarity in the choices of static and dynamic text of both public and private sector universities of Pakistan.

4. Though most of the same signifiers in the static and dynamic text signify the theme of 'Education for Sustainability', their frequency of occurrence is less than the other two themes in both the private and public sectors. The signifiers of the theme of 'greening' were a bit lesser in number, but the frequency of occurrence was the highest among all of them. The universities usually have the same academic programs, and the signifiers used for indicating 'Sustainability Sciences' are already fewer in number as compared to the theme of 'greening'. Also, the commonality of only four signifiers of this theme also leads to the deduction that Pakistani universities did use their own individual verbal and non-verbal signifiers for this theme, and the priority of putting up these signifiers is still lesser in these universities as compared to the other two themes.

5. The top four shared signifiers in the static and dynamic text in terms of frequency pertain to the theme of 'greening' among which 2 of them were colors i.e. blue and white which indicates to be the preferred choice of both private and public sector university websites of Pakistan.

6. 'Nature/Ecosystem' as a signifier that had the highest frequency by combining both types of text in the public and private sectors leads to the conclusion that this signifier is the preferred choice, which is, at the same time, both subtle and explicit, representing the theme of 'greening'. The color green embedded as a signifier in the signifier of 'Nature/Ecosystem' has been adopted by most of the academic websites all over the world, as it is the most soothing and captivating element and gives an effective illustration to the campus sustainability discourse. This practice has been adapted by Pakistani universities as well.

7. 'Architecture' was the signifier that was second highest in terms of total frequency in the static and dynamic text, with the private sector implying it more than the public sector. This finding leads to deduce the contemporary trend of showing the visuals and verbal text about the buildings and spaces of the universities on the websites all over the world that is taken up by the Pakistani private sector university websites more actively to display their rich resources, modernity, aesthetics, culture, and 'greening' efforts.

8. The observation of dynamic text, i.e., videos showing more frequency of verbal and visual signifiers like 'classroom/s/classes', 'achievement/s', and 'library' only in the videos, brings us to the ratiocination that places and academic achievements were the focus of the visuals and verbal text used as signifiers of campus sustainability. The equally frequent signifier between the videos and still text is about facilities of 'transport/ation' which leads to the denouement that this facility is a common focus for sustainability in both types of text, and this signifier is associated with the theme of 'greening' in campus sustainability discourse.

9. The signifiers of arrangements of seminars, workshops, degree/s, conferences, group photos, convocations, activities, and rankings were in greater frequency in the still text than videos. It shows the theme of more involvement in the theme of 'education for sustainability' in the still text. There were signifiers only present in the still text that relate to the theme of 'greening' i.e., the solar power plant, and colors like orange, purple, and red, which accentuated the visual illustration of the still text. The theme of 'Education for Sustainability' appeared as the public service/CSR', 'MOU's', 'bow and arrow' as signifiers, and the links and apps of social media like Facebook and pictograms like 'globe'

pertain to the theme of ‘Sustainability Sciences’ which indicates the eventuality that the still text of Pakistani universities utilized these commonly used signifiers to illustrate their campus sustainability discourse.

10. Different colors as signifiers of the theme of ‘greening’ were utilized, but some colors were found to be more frequent than others. The highly frequent colors found on Pakistani websites were ‘blue’ and ‘white’ which led to the deduction that blue and white on both the still and dynamic text were the preferred choices of both public and private sector universities. ‘Blue’ was more frequently displayed by the private sector in still text, while the public sector used it more in videos. These colors, which are signs of calmness, purity, grace, dignity, and discipline, reflect the orientation of values aspired to in the campus sustainability discourse. These ‘values’ are vital in furthering the theme of ‘education for sustainability’. This leads to the realization that there is an ample amount of text in visual and verbal modes expressing an inspiration for such values and effects on the environment in the form of these colors.

11. The verbal signifiers were the keywords related to campus sustainability themes which were found to be common in the still and dynamic text. An interesting thing that came up during these findings was that many words were common with the content on videos and these keywords act as visual and verbal frames for the text put on the websites of Pakistani universities. The similarities that are deducible in the nonverbal + verbal data and the verbal data are jotted down as follows:

- i. ‘*Research*’ was the most expressed keyword verbally while it was alluded to nonverbally in the photos of *labs* more frequently in the private sector websites. The theme of ‘sustainability sciences’ was most pursued in terms of these verbal plus visual frames.
- ii. ‘*Environment/s/environmentally/environmental*’ as among the top five most frequent key words was found visually in the imagery of nature and ecology around the ‘*architecture*’ (building/s; view i.e. aerial, outside, inner, upper view; entrance and parking area) embodying the theme of ‘greening’ especially in the private sector on the Pakistani university websites.

- iii. *'Knowledge'* as a verbal frame elucidated in non-verbal mode as 'book/s' more actively in the private sector was also a preferred choice.
- iv. *'Green/ less greenhouse/ greening/ greenhouses'* as a verbal frame, more prevalent in the public sector, was subtly intimated as a visual color green more in the private sector which shows the orientation towards 'greening'.

This comparison of non-verbal data supported by verbal data and verbal only data brings to the realisation that the data placed on the websites was deficient in terms of modes presented to connote the theme of education for sustainability, while the themes of greening and sustainability sciences were the highly preferred themes. The private sector of Pakistani universities is more stimulated to display the related content both in verbal and nonverbal modes as compared to the public sector.

11. The word used in the highest frequency in the verbal text of the still text as well as the videos was *'research'* with nearly equal frequency on both public and private sector university websites. This leads to verifying the postulation that 'research' is the most focused frame associated with the theme of 'sustainability sciences' in the campus sustainability discourse of Pakistani universities.

12. The public sector university videos also emphasize the frame of *'internationalization'* and their higher frequency in their static text after 'research' in their verbal discourse as compared to the still text of the private sector shows the focus of the theme of sustainability sciences of campus sustainability discourse through this frame as this can bring more prestige and foreign funding to their institutions.

13. In the top five verbal frames found in the videos, the public and private sector did not show much fluctuation in the frequencies. The theme of 'greening' was emphasized in the frame of *environment, greening/green houses*. The frames of *'knowledge'* and *'development'* leads to the idea that the theme of sustainability sciences is more active in the verbal frames while the other two themes are not very explicitly portrayed even in the videos.

14. The term '*sustainability*' was equally preferred by the public and private sectors in the still text, while SDGs were mentioned by only private sector websites. In the videos, we don't find such verbal frames of the overall concept of 'sustainability' and mention of 'SDGs. This again points to the absence of explicit 'sustainable development discourse' or a lack of overall campus sustainability themes.

15. Both public and private sector equally highlighted the frame of '*knowledge*' in both still and dynamic text which gives the idea of how the orientation of campus sustainability discourse is set up on the websites of Pakistani universities and reveals that as compared to the theme of Sustainability Sciences, the themes of greening and EFS need some more attention in the verbal discourse of Pakistani university websites.

6.2 Conclusion

The above-mentioned summary of the main conclusions drawn from the findings was exploratory in nature and suggests different designs of the static and dynamic text appearing currently on the private and public sector Pakistani university websites.

The usage of modes displayed for these themes suggests trends in presentation by the private and public sector website discourse. It also explores the use of new modes and their combinations. The most highly frequent mode was the '*verbal written text*'. In the private sector, it was used it in lesser frequency as compared to the public sector. The second highest was the sub mode of '*colors*' while appearing more in private sector than the public sector. The mode of '*photo/s*' was the third highest mode in the private sector and less in the public sector. '*Photo/s + Verbal written text*' was employed. It occurred slightly lesser in the private sector than in the public sector. The sub mode of '*background commentary/ verbal oral text*' coming up with random pictures in the dynamic text was also a prominent mode. The '*verbal written text*' was the most favourite mode of even the dynamic text of both the sectors. Also, the mode of *colors and photos* have a common influence on both the sectors in this type of text on the websites. The usage of '*audio+pictures*' commonly in greater frequency shows the affordance of this mode almost equally utilized by both the sectors.

As discussed in the findings about verbal frames, the term "research" was prominently articulated verbally, and its visual representation was implied through laboratory images on websites, indicating experimentation and the practical application of research. This thematic frame was particularly emphasized more frequently on the private sector websites, both in terms of verbal expression and visual portrayal. This points to the fact that Pakistani universities and the private sector are more prominently following the theme of '*sustainability sciences*' of campus sustainability discourse. The term '*Environment/s/environmentally/environmental*' was ranked among the top five most frequently used keywords. '*Nature and ecology*' were highlighted as essential elements in shaping any environment. This category stood out as the most prevalent, particularly in the non-verbal form, visually represented through associated verbal data. Another significant nonverbal category was '*architecture*' reflecting the physical ecology and environment. Private sector websites, in both verbal and nonverbal content, emphasized this signifier, indicating a particular focus on the main theme of '*greening*' in various forms on Pakistani university websites.

The findings also revealed the most frequent visual signifiers in the static and dynamic text of the websites, which are separately common to the private and public sectors. Then, 20 signifiers that were the most frequent in both texts were deciphered, and they were categorized as following the three main themes of campus sustainability. The most frequently emphasized theme across both private and public university websites was 'Greening' featuring eight signifiers. Additionally, the theme of 'Education for Sustainability (EFS)' was prominently highlighted through nine categories of signifiers. Though there were eight specific signifiers associated with the theme of 'Greening', the overall frequency of occurrence of this theme was the highest among all the themes. On the other hand, the theme of 'Sustainability Sciences' had a comparatively lower representation, encompassing four signifiers on both types of university websites. 'Nature/Ecosystem' and 'Architecture' were the most frequent among them, which shows the preferred signifiers among all of them.

Greening was the most frequent theme in the total percentage of both sectors in the static text. It was coupled with the theme of education for sustainability as the most frequently displayed theme in the private sector, which was of least preference in the public

sector. The theme of 'sustainability sciences' was also preferred by the public sector, while the private sector had its usage in lesser frequency in the static text. This shows that there is an active focus on the frame of greening and education for sustainability, showing that there is more focus on the physical infrastructure and facilities while there is less focus on the knowledge- or research-based themes. This is something missing in Pakistani higher education, and it needs to be produced more.

In the dynamic text, on the other hand, the frame of 'sustainability sciences' occurred with the highest frequency when the statistics from both sectors were combined. However, the theme of greening was more preferred in the private sector as compared to the public in the dynamic text. This shows that the video text of the private sector prefers illustrating the beauty and facilitation of the physical environment more, as well as enhancing their contribution towards the knowledge economy to be competitive for the public sector and all around the world too. The preference of signifiers in static texts by Pakistani universities reflects a strong inclination towards environmental actions and sustainability education, with a relatively lesser focus on technological and scientific approaches. To create a more holistic approach to campus sustainability, this analysis suggests areas for further development, particularly in integrating technology and enhancing sustainability sciences.

Concerning theSDGs, goal 1 i.e. '*no poverty*'; goal 2 i.e. '*zero hunger*'; goal 5 i.e. '*gender equality*'; goal 14 i.e. '*life below water*'; goal 15 i.e. '*life on land*'; goal 16 i.e. '*peace and justice*' were found to be used rarely in both types of text in both types of sectors. The goal 9 i.e. '*Industry, Innovation and Infrastructure*'; goal 10 i.e. '*reduced inequality*' and goal 13 '*climate action*' were used in very lesser frequency too.

The similarity of the signifiers and modes between the static and dynamic text as well as between the private and public sector endorses the inference that different types of multimodal texts and authorities/sectors have more commonalities as well as some differences in their preferences in executing their campus sustainability discourse. Private sector universities in Pakistan demonstrate a distinctive approach to campus sustainability through an emphasis on architectural sustainability, research facilities, academic ranking, and leveraging famous personalities. This approach aligns with various SDGs and complements the public sector's focus on community engagement and visible environmental actions. The combination of these strategies can create a comprehensive and

multi-faceted approach to achieving sustainability goals in the higher education sector. However, Pakistani universities lack a clear pathway and guidelines to present and propagate their discourse on sustainability. They need to have their individuality in the choice of signifiers, activities, and quantity of clear sustainability goals for showing their preferences for different frames of campus sustainability discourse instead of just showing the promotional discourse on their websites.

6.3 Contributions of the Current Study

This study is a thought-provoking record of different signifiers used to connote sustainability in the higher education institutions of Pakistan. As it is interdisciplinary in nature, it is useful in various fields associated with higher education. There is huge potential for working in fields related to sustainability, and one can find different ways to apply them.

- i) Sustainability is a vital component of every domain of life. This influential aura of this concept is pivotal to discuss in the digital world of today, where different modes are used to communicate, and this study gives an insight into this concept. This account is predominantly important to illuminate the different aspects of campus sustainability discourse, both in the verbal and non-verbal modes. It can be instrumental to compare and evaluate in different contexts and in other parts of the world around Pakistan. The communication and discourse studies experts or presenters can make use of the exploration of modes in this study.
- ii) Globalization is strengthening its roots, and the study can be crucial to highlighting the ways the Pakistani higher education discourse is being shaped by different sectors. There is a dire need to start and organize the discourse on campus sustainability in the Pakistani higher education scenario. One of the institutions in Pakistan that is responsible for taking care of and to promote “sustainability with the aid of its devised structural units that look into various areas of higher education” (Shah Bukhari, Said, Gul, & Ibna Seraj, 2022, p. 867) is the Higher Education Commission (HEC) of Pakistan. This institution can promote this discourse by taking help from the research work in this field and it can promote further research on the urgently needed areas to explore in this context.

iii) The study may be taken as a resource initiative for training and workshops for guiding professionals to understand the discourse of sustainability and use it for future planning and visualisation of different policies, goals, and indicators.

iv) The study also highlights the themes regarding the SDGs as outlined by the UN in 2015. It points out the presence and absence of the signifiers representing the relevant SDGs present in the current sample.

6.4 Limitations of the Study

Following were the difficulties, problems or limitations that were involved in this study.

- 1) There was so much content on the websites. To choose the relevant material and possible criteria to select was an uphill task. Consolidating that much material for analysis relevant to themes was a hard nut to crack.
- 2) Sustainability is a very new concept in Pakistani higher education. Many of its themes are still very implicit in Pakistani higher education discourse as there is lack of clear vision and goals.
- 3) There were so many dimensions to semiotics and semantics that it is very difficult to delimit the available data and avoid digressions. The process of abstraction of data and relevant ideas was much difficult, detailed and time taking due to the multimodal nature of text selected for analysis.
- 4) Handling observation of minute details and then describing it was an uphill task and it took more time and energy than the usual text or qualitative research.
- 5) Case study research was not possible. It was not possible to study each and every tab and sub link of each website due to data and time delimitations and the requirement of generalization.
- 6) Fluid nature of website material like visuals and information may cause problems in getting the concrete results and findings.
- 7) COVID-19 has also got far reaching effects on the multimodal designs of university websites and this has also brought changes in the content of campus sustainability discourse on the websites.

- 8) Some of the frames were difficult to categorize according to a particular theme as it depends upon the context in which they are used.

6.5 Future Recommendations

Some of the recommendations for future studies and preferences for aspects to improve the discourse are given as follows: By addressing these aspects, Pakistani universities can strengthen their campus sustainability discourse, making it more comprehensive, engaging, and impactful.

1. Comparisons with the main frames of campus sustainability on foreign university websites can be done.
2. Certain frameworks, assessment criteria, and definitions of campus sustainability have been highlighted in the methodology and data analysis sections. These are composed on an international level and are authentic. But there is still a need to explore and define campus sustainability signifiers in the Asian context, especially in the Pakistani context.
3. The assessment studies must be highlighted, appreciated, and implemented in the current discourse about achieving the SDGs at higher education institutions in Pakistan. Pakistani universities need to be more conscientious in putting up the discourse related to campus sustainability explicitly on the websites for their audience so that they get aware of these operations at work, the issues are highlighted, and the university's efforts to achieve the SDG's are recognised and acknowledged by a wider audience.
4. It is suggested to incorporate more visuals on the websites of Pakistani universities. Infographics, photo essays, and other purely visual content to complement existing formats may be used. This can make the communication more varied and engaging.
5. A balanced approach with written text to ensure the clarity of the message is also needed. To enhance engagement, interactive elements like quizzes, polls, and interactive infographics in videos increase audience engagement. Story-telling techniques may be used to make the content more relatable and memorable. Ensure that all content is

accessible to a diverse audience, including those with disabilities. Provide transcripts for videos, and use clear, easy-to-read fonts for written text.

6. Universities are unique due to topography, location, population size, culture, climate, etc. Therefore, the selection of areas and effective initiatives for campus sustainability also need to be explored when discussing campus sustainability measures.

7. The term 'sustainability' was found to be used very less. It should be used more while composing the website content to highlight the universities' efforts .

8. More multilingual content to gain internationalization on the websites is the demand of the contemporary world, which must be understood by the university management responsible for composing and programming the official websites.

9. The consistent emphasis on "education for sustainability" and "sustainability sciences" across both static and dynamic texts indicates a comprehensive approach to sustainability that includes both education and research. Despite this balance, the relative underrepresentation of more diverse themes such as social equity, economic sustainability, and policy advocacy could suggest gaps in a holistic sustainability strategy. So, a balanced emphasis on key themes must be followed by the universities.

10. The integration of sustainability into both educational curricula and scientific research is critical for fostering a culture of sustainability and driving innovative solutions. The actual impact of these initiatives depends on their implementation and integration into campus operations and policies. Without concrete actions and measurable outcomes, the discourse might remain largely aspirational.

11. Curriculum-related measures must be taken. Integrating the goals and themes in other disciplines and courses in syllabi uniformly, especially in the universities of both sectors must be stipulated to normalize this discourse in academic settings.

12. 'Sustainability sciences' should be focused more in terms of innovation, internationalization and technology-related measures. Also, an interdisciplinary approach is needed to encourage collaboration between sciences, humanities, and social sciences to address sustainability from multiple perspectives.

13. More educational research is needed on university teachers' and students' awareness of the discourse of campus sustainability, especially in terms of SDGs and themes. The topics are needed and should be further discussed in order to improve their sense of identity as well as their commitment to provide services that are in line with their academic, research, and public service thrusts.
14. Further university rhetorical studies need to be conducted that engage issues of race, class, gender, and culture through the lens of sustainability—the ways in which the often competing demands of economics and ethics intersect in local, regional, and national settings.
15. The role of visual rhetoric in delivering sustainable messaging; the role of writing pedagogy in raising awareness of the rhetorical nature of sustainability; other advanced level linguistic features like metaphors, agents, adjectives, passive constructions etc. are useful to study the linguistic aspects of such discourse.
16. There is a need to conduct case studies of individual university websites. This would entail the support and participation of data mining professionals. In terms of genre analysis, researchers may also include an examination of multimodality (the different modes used in composing online messages), intertextuality (the relationship among online texts and other parts of the websites), and steps in each rhetorical move of university websites.
17. Languages must be more focused. It is a major source of promoting the theme of sustainability sciences for the campus sustainability discourse.
18. It is exigent to provide effective and authentic softwares easily accessible for multimodal studies which can lead to more valid corpus related studies .
19. Reorienting research, scholarly activities, and funding on sustainability issues and interdisciplinary themes need to be promoted by HEC. It must devise collaborative projects with other universities on a national and international level.
20. Community outreach and collaboration with other strata of society need to be stipulated in both sectors. Universities should be used as living labs for sustainability practices.

21. The idea of ‘ecocommunities’ or ‘sustainable societies’ is pertinent. Implications and activities, not only on the academic level but also on the societal level and at the community levels to which the teachers and students belong, must be administered more effectively.
22. The role of PEPAK (Pakistan Environmental Planning and Architectural Consultant) or Pak EPA (Pakistan Environmental Protection Agency) must be revitalised to collaborate with the university management responsible for embedding sustainability, especially the public sector ones, in their institutions.
23. There is a need to highlight the unique cultural signifiers in different modes on Pakistani university websites.
24. Combine the strengths of static and dynamic content to provide both depth and engagement from students, faculty, and staff in sustainability initiatives and discourse. Ensure that dynamic content is supported by detailed, transparent reports and documentation. Implement robust metrics to assess the impact of sustainability initiatives and communicate the results.
25. Use interactive platforms and social media to engage a broader audience and encourage active participation. For this purpose, virtual tours and webinars can be utilized. Enhance dynamic content with virtual tours of green campuses and webinars on sustainability topics.

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APPENDICES

I- Verbal data (6 public +6 private universities)

1. NUML

VISION & MISSION

Vision

Premier center of excellence in higher education, research and innovation, and expression for development of languages and other branches of learning, and creation of new knowledge

Mission

The mission of the National University of Modern Languages is to establish, sustain and enhance itself as a quality-centric higher education institution that provides excellent academic environment and opportunities for creating educated, productive, and responsible citizens of Pakistan and the global citizenry through intellectual, personal and professional growth.

To advance its pristine vision and mission of creating educated, productive and responsible citizens, the university shall focus its efforts on 3 goals: high student achievement and success, institutional

and competitive excellence, and responsible public service. These interrelated goals will be facilitated by adopting the following means: distinguished intellectuals as faculty who challenge and mentor students to attain their fullest potential; talented, desirous and promising students who are devoted to the pursuit and advancement of knowledge; broad-based quality programs; state-of-the-art facilities and new trends in e-learning and information communication technologies; exemplary administration and qualified administrative staff dedicated to the highest professional standards and service; that thus share a common vision and an integral commitment to continuous improvement at all levels and to ensure competitive excellence and international compatibility.

OBJECTIVES

This comprehensive mission statement applies to all branches of the university, and through them, it seeks to:

1. Create a positive and proactive educational environment where quality applicants as students, faculty of competent, dedicated intellectuals, and efficient administration and staff members make valuable contributions to knowledge transfer and knowledge creation
2. Provide excellent, accessible and affordable learning opportunities including new trends in e-learning and information communication technologies, and educational experiences to serious and motivated undergraduate, graduate and professional students and researchers in the pursuit of knowledge in areas of personal, professional and special interest, thereby preparing them for their educative and productive roles and responsibilities as Pakistani and global citizens
3. Engage education that imagines learning is inextricably connected to social change, and promotes co-curricular spaces as active seats of learning
4. Cultivate the practice of highest moral and ethical values and principles of trust and authenticity, integrity and ingeniousness, creativity and critical capacity as attitude, conviction and compassion necessary for exercising civic courage, taking risks and struggles, and establishing social relations as preparation for public discourse and public life
5. Encourage excellent, innovative research that posits the discovery, dissemination, and application of knowledge
6. Promote language development across diverse seats of language learning, and an increased enhancement of diverse programs and disciplines and curriculum through emphasis on Technology and advanced information literacy across curriculum
7. Enhance specialized market based courses and research opportunities in areas of Social Sciences, Mass Communication, Business Studies, International Relations, Engineering and its sub fields and Information Technology and other disciplines

8. Create pedagogical conditions and spaces that empower both teachers and students with many ways of understanding the world, and consequently, engage in the creation of new knowledge, new ideas and practices that come with multiple references and can thus, mobilize their hopes for active participation in the global community and for the future

9. Create pedagogical practices that characterize not only the enlargement of mind but the open exchange of ideas, thought, inquiry, dialogue, and material conditions for the expression of individual and social freedom, as well developing a language of critique and possibility

10. Prepare and equip graduates for their futures in the world of work or furthering of education to make significant contributions in the development of Pakistani society and the global community

11. Encourage personal and professional growth, dynamic work culture, and support healthy working environment as an exemplary employer, where its faculty and administrative staff feel valued and fulfilled

12. Create an ever larger community of supporters, and an endowment including stakeholders that support and perpetuate constant innovation and progress

The university will follow these tangible processes for achieving its objectives:

- Engage and support serious and promising students who are dedicated to the pursuit of higher learning and scholarship
- Acquire, retain and nourish competent, dedicated transformative intellectuals as faculty
- Maintain exemplary administration and staff members who provide active and responsible leadership and constant support to the educational enterprise
- Create and sustain educational environments, activities, experiences and facilities that enhance and complement educational goals including appropriate classrooms, well-equipped libraries and laboratories, computer and advanced technological facilities as well as co-curricular spaces and other resources consistent with institutional goals and international competitiveness
- Initiate and nourish educational and research collaborations with national and international institutions
- Encourage academic guidance and industrial-sector support of higher education and research through continuous interaction with alumni, educational leaders and civic community

Why NUML

- The only “LANGUAGE UNIVERSITY”
- “WORLD CLASS REPUTATION
- “ACADEMICS EXCELLENCE”

- “POSITIVE PLACEMENT”
- “IDEAL LOCATION”
- “TRANSPORT & ACCOMMODATION”
- “STUDENT SATISFACTION”
- “FRIENDLY FACULTY”
- “LIBRARY & IT FACILITIES”
- “CARING STUDENT SERVICES”

ORIC

Introduction

ORIC has been established to initiate, embed, support and integrate the process of research, innovation and commercialization in every department of the university. ORIC aims to protect and promote the interests of NUML and is working on long-term, sustainable planning and progress of all of its units in integration with the departments of the university. ORIC-NUML has identified key industries with exceptional opportunities, long-term and cutting-edge challenges.

ORIC is an office established by the university at its main campus to implement HEC’s plan of developing a research culture in Pakistani universities. The purpose of this office is to introduce and promote research culture within NUML. It also aims to develop contacts with the corporate sector/market/industry to ensure compatibility between research and requirements in order to increase its utility to the optimum. Therefore, this office facilitates, promotes, monitors, publishes and sells research conducted with the view to maximize both production and utility of research studies attempted in this regard.

Vision

To lead in the field of research and propel the intellectual and social capital of NUML into the globally competitive knowledge-based society

Mission

To serve as catalyst for the development and empowerment of individuals, professionals and institutions through capacity building and sustainable solutions

Aims & Objectives

- To manage and support all academic and sponsored research & development related activities of academic and research units.

- To bring funding opportunities from national/international donors/sponsors to the attention of faculties.
- To design, develop and deploy practicable and replicable models for sustainable economic and social development of the society.
- To provide tailored career counseling and placement services against one's needs, goals, choices and future plans based on one's hidden abilities, skill and talents.
- To provide quality mentorship and conducive environment to writers and scholars for research-based writing.
- To maintain, deepen and strengthen an enduring lifelong relationship between alumni and university through opportunities that promote interaction and engagement with NUML.

Cyclic Integrated Participative Approach (CIPA)

Each academic department at NUML (Main campus and regional campuses) has an ORIC coordinator and facilitators to assist the ORIC team. Cyclic Integrated Participative Approach (CIPA) is the cyclic process from development to deployment and redevelopment of ideas and products through university-society interaction.

Corporate Social Responsibility (CSR) Initiatives

NUML, like other leading universities in the world has launched Corporate Social Responsibility (CSR) Initiatives under ORIC to promote NUMLians' social contributions. IDEAS cover NUML CSR Initiatives thematic areas and are as follows

- Ideology : : Patriotism, Values, Vision, Studentship,
- Deliverance : NUML Community Services, Emergency Relief
- Education : Promotion of knowledge, Out-of-school Children, Scholarships
- Aesthetics : Arts & Culture; national unity through diverse indigenous participation
- Sports : Physical & cognitive activities; sportsmanship with resilience

2. International Islamic University, Islamabad

The foundation of the Islamic University, Islamabad was laid on the first day of the fifteenth century Hijrah i.e. Muharram 1, 1401 (November 11,1980). This landmark of the beginning of the new Century symbolizes the aspirations and hopes of the Muslim Ummah for an Islamic renaissance. The university was created to produce scholars and practitioners who are imbued with Islamic ideology, whose

character and personality conforms to the teachings of Islam, and who are capable to cater to the economic, social, political, technological and intellectual needs of the Muslim Ummah. Islamic Research Institute and few other units like Iqbal International Institute for Research & Dialogue, Dawah Academy, Shariah Academy and Institute of Professional Development are situated within the premises of majestic Faisal Mosque (spread over an area of 189,705 square meters) which is a symbol of International Islamic brotherhood and unity. In conformance with the Islamic precepts, the university provides academic services to men and women through separate campuses for each segment. These campuses, along with the central library, administrative wing and hostels, are located in sector H-10.

The Vision

To provide every opportunity for an all round and harmonious development of individuals and society and reconstruction of human thought in all its forms on the foundations of Islam in order to encourage and promote education, training the research in Islamic learning, social, natural, applied and communication sciences and other branches of learning to ensure the Muslim Ummah's ideological, moral, intellectual, social, economic and technological development in accordance with the values, ideals, principles and norms of Islam.

Action Plan

Segment-I

1. To consolidate the existing faculties, institutes, academies and centres of the University, namely, Faculty of Shariah and Law, Usuluddin, Arabic, Languages and Literatures, Social Sciences, Management Sciences, Applied Sciences, Academy, Shariah Academy, Centre for Basic Studies and the Iqra College of Technology.
2. To establish new faculties, departments centres, units and cells and strengthen the existing faculties, institutes, academies and centres the order the ensure diversification and deeper specialization in the relevant areas and to promote higher learning, research and training in various branches and specializations falling under the purview of the concerned faculties, institutes, academies or centres.
3. To strengthen pre-doctoral and post-doctoral research programs in the existing faculties and institutes.
4. To develop and consolidate the Female's Campus as a premier seat of higher learning for female.
5. To develop a faculty committed to the cause, vision and mission of the University on the one hand and responsive to the requirements, professional competence and an enhanced Islamic understanding on the other.
6. To develop a rich multi-lingual resource centre in the areas of interest to the University.

7. To develop centres of expertise, research and consultancy in the fields of Islamic Law, Islamic Economics and Banking, Islamic Finance, Information Technology and Engineering and Technology.
8. To develop a nerve center of higher Islamic education in Pakistan through affiliation of leading institutions of Islamic education, establishment of regional campuses and centres, and coordination with eminent personalities working in the fields of Islamic education, research, instruction and training.
9. To produce scholarly works and other reading material in the fields of interest to the university, especially Law, Jurisprudence, Islamic Thought, Economics, Banking, Political Science, International Relations and Business Administration.

Segment-II

1. To establish Faculties of Medicine and Health Sciences and a Faculty of Engineering and Technology with expertise drawn, as far as possible, both from Pakistan and overseas.
2. To establish a faculty of Communication and Media with view to produce experts in the fields of media, communication and journalism.
3. to establish branches and affiliated institutes of the International Islamic University outside Pakistan especially at places where higher Islamic learning is not available.

The Mission

To optimize integration and Islamization of the contemporary knowledge and human thought in international perspective through established institutions and academic endeavors to achieve excellence in all branches of knowledge.

Office of Research, Innovation & Commercialization (ORIC) is operational at the International Islamic University, Islamabad (New campus). ORIC was established at the University in 2010 with the approval of B.O.G in its 63rd meeting a propos guidelines of the Higher Education Commission (HEC), Islamabad for all Universities/DAIs of Pakistan to establish "Offices of Research, Innovation & Commercialization (ORIC)".

OBJECTIVES & FUNCTIONS

The Office of Research, Innovation & Commercialization (ORIC) aims to:

- Develop, expand, enhance and manage the International Islamic University's research programs
- Link research activities directly to the educational, social and economic priorities of IIUI and its broader community

- Ensure that the quality of research reflects the highest international standards and advances the stature of the International Islamic University among the world's best research institutions

The Office of Research, Innovation & Commercialization (ORIC) seeks to enhance the research culture at IIU and realize above-mentioned objectives by:

- Supporting the university's strategic research directions and policies
- Increasing and diversifying external research funding
- Improving recruitment and retention of top faculty members
- Improving integration of research and education at all levels of the university
- Improving translation of research into the public benefit
- Strengthening university – industry relationships
- Promoting entrepreneurship, technology transfer and commercialization activities that energize and support the local and national economy
- Promoting and enhancing cross-cutting and multi- disciplinary research initiatives

Future Plans

1. To improve Human Resource Development Program and explore funding for establishment of Research Labs at IIUI in its various Departments.
2. To strengthen international linkages particularly with American universities based on joint research proposals for international funding.
3. To hold regular scientific seminars, colloquia, symposium etc at IIU to promote the culture of interaction and sharing of scientific knowledge with researchers around the world.
4. To prepare the University Strategic Business Plan for the next 5 years.
5. To prepare the research Policy for the University.
6. To explore possibilities of projects based on public-private partnership.

IIUI HOLDS CONFERENCE ON INNOVATION IN TEACHING AND LEARNING

Published on: October 17th, 2018

A two day international conference on innovation in teaching and learning kicked-off here at Faisal Masjid campus of the International Islamic University (IIU) on Wednesday.

Conference is being organized by the department of education of the university in which educational experts and educationists will discuss innovation in curriculum and instruction, innovation in higher education, innovation in educational research and educational interventions in more than 170 research papers.

Progressive attribute of education must be stressed and focused to meet the requirements of hour, said famous educationist Dr. Mehmood ul Hassan Butt speaking as a chief guest at the opening ceremony of the conference.

He maintained that innovation is all about learning new things with different approaches and it leads towards exquisite and significant impact and results. "Islamic scholars and educationists have a vital role in advancing innovation in the field of education" he told. He also discussed Islamic history and renaissance and different innovative approaches in education.

Dr. Muhammad Munir, Acting President IIUI urged the students to explore the knowledge on specific aspects through experts of the conference. He also highlighted importance of research and adoption of innovation.

Dr. Samina Malik, Dean Faculty of Social Sciences elaborated objectives of the conference and said that it was aimed at addressing opportunities, challenges and directions afforded by the technological innovation in the field of education. "We will have to let our youth think "out of the box" because it is a salient attribute of innovation and progress. She furthered that use of technology does not make things innovative, while it was necessary that innovative approaches be adopted.

Dr Nabi Bux Jummani, the patron of the conference and director distance learning paid vote of thanks to all the participants.

Earlier, Heads of education departments at both male and female campuses elaborated objectives of the conference and apprised about the services and achievements of the departments.

The conference will conclude today (Thursday), while today experts will discuss various topics such as innovation educational pedagogies, internationalization of education and technology innovations and its impact on education.

The opening ceremony was also attended by Vice President female campus Dr. Farkhanda Zia, senior faculty member of the department and a large numbers of the students.

IIUI MARKS WORLD TEACHERS' DAY

Published on: October 6th, 2018

The opening ceremony was also attended by Vice President female campus Dr. Farkhanda Zia, senior faculty member of the department and a large numbers of the students.

IIUI MARKS WORLD TEACHERS' DAY

Published on: October 6th, 2018

International Islamic University Islamabad (IIUI) marked the World Teachers' Day and conducted a walk at its new campus on Friday.

IIUI President, Prof Dr. Ahmed Yousif Al-Draiweesh led the walk which was organized by education department in the supervision dean Faculty of Social Sciences Dr. Samina Malik.

A large number participation of Chairpersons, HoDs, faculty members and students was observed to mark the day. The participants of the walk were carrying banners and placards which highlighting the status of teacher as a nation-builder.

"The day highlights the fact that teachers must be empowered as a critical step towards quality education and sustainable societies" said Dr. Ahmed Yousif Al-Draiweesh.

IIUI President, in his address congratulated the students and faculty members for holding successful event to celebrate the day. He urged that teachers' services should be highly acknowledged by all the corners of the society and students must cooperate with teachers to build a strong and prosperous nation. He was of the view that teachers play vital role in imparting quality education and they are the source of guarantee to a bright future.

1335 SAPLINGS PLANTED AT IIUI

Published on: August 13th, 2018

International Islamic University, Islamabad (IIUI) and Centaurus mall have joined hand to promote a tree plantation drive "efforts for Green Pakistan" which kicked off on Monday at new campus (H-10) of the IIUI, where as many as 1335 saplings were planted.

These saplings included olive, pine, suk chain (*Pongamiapinnata*) and *Alstonia* which were planted by GM Centaurus, IIUI Rector, President, faculty members, administrations officers, centarurus team crew and university students.

A ceremony to launch the drive was attended by General Manager Centaurus Mr. IrfanulHaque, IIUI Rector Dr. MasoomYasinzai, President Dr. Ahmed Yousif Al-Draiweeshand other high ups of the both sides.

IrfanulHaque said that plants are the guarantee of the safe environment in future. He hailed IIUI for its service to society and added that due to importance of the institution the centaurus administration chose to start this campaign with IIUI.

"The Centaurus Mall Islamabad has initiated a drive of Green Pakistan under a phased programme where a number of trees are being planted at different locations" He told.

He also conveyed the message of the owner of the Centaurus mall and President Sardar Group of Companies Sardar Tanveer Ilyas Khan that he has re-iterated the dire need of plantation in Pakistan and said that realization of this factor by every segment of the society is very imperative so that every citizen can play his or her respective role in this drive.

IIUI Rector Dr. Masoom Yasinzai spoke about his previous meeting with the Minister SaradarTanveer and told that the initiative of plantation was warmly agreed by both sides. He stressed upon educational institutions to remain not only bound to books but they must come forward to address and solve the issues of society. “Educational institutions must act as solution providers” IIUI Rector maintained.

President International Islamic University Islamabad, Prof. Dr. Ahmed Yousif Ahmed Al Draiveesh thanked the Centaurus Management and SardarTanveer Ilyas Khan on this noble cause. He vowed that university will take care of these plants and they will be a living symbol of bilateral constructive cooperation between both sides in future.

3. COMSATS

Vision

CUI aspires to be both one of the top research institutions and one of the best higher education providers in the country. It envisages becoming a university by the name of “COMSATS University”, for which the legal documentation is under process with the Government of Pakistan. The vision being pursued by the CUI is to become one of the top 100 universities in the developing world. The CUI further intends to earn a place among the top 500 universities of the world by the year 2020.

Mission

The Institute's mission is threefold:

i) Research and Discovery

Generate and preserve knowledge, understanding and creativity by instigating enquiry, conducting high-quality research and promoting scholarship, that benefit students, scholars and communities across the country, the Muslim Ummah and the World, at large.

ii) Teaching and Learning

Share the knowledge, understanding and creativity by providing a broad range of educational programs among a diverse community of learners and teachers and prepare graduate, professional and undergraduate students as well as non-degree seeking students interested in continuing education and lifelong learning for active roles in competitive and culturally diverse environments.

iii) Outreach and Public Service

Extend, apply and exchange knowledge between the institute and society by applying scholarly expertise to intellectual, social and technological problems, by helping organizations and individuals respond to their changing environments, and by making the knowledge and resources created and

preserved at the institute accessible to the citizens. Using the resources of its multiple campuses in an integrated fashion, the Institute vies to strengthen the services to the state through the education of a modern work force, research and development, technology commercialization and partnership with business, government and community groups

LATEST EVENTS

<http://ww3.comsats.edu.pk/arch/NewsEventDetail.aspx?id=144655>

Introduction:

The task of architecture is to create sustainable human environments. Architecture is both an expression of human values and a context for human activity. Design in architecture hence combines many interrelated and important aspects including environmental, social, aesthetic, political and cultural aspects that determine the organization of the built form.

Architectural education requires the student to learn critical thinking with theoretical and historical understanding, so that the parallel processes of design and spatial thinking are developed. In addition, the student must also be trained to be articulate and to communicate design concepts and intentions clearly.

Architectural schools employ various pedagogies to encourage students to apply their intellect and imagination to design a coherent environment that responds to relevant issues.

The great challenge lies in the training of teachers of architecture, a relatively undeveloped field. Most educators have not had formal education about teaching students of architecture, as there are no degree programs for this. Architects, who intend to become academicians, usually learn and develop their pedagogies 'on the job'. Along with them a range of professional architects and designers are usually brought in on visiting basis to strengthen academics. Interestingly, both set of teachers employ varied and at times conflicting pedagogies. And at times, teachers learn from students, as each experiment in design is unique and one of a kind! Thus the learning process that produces educators of architecture is unique, diverse and complex.

The historiography on architectural education is also rather limited, representing a void in this field and posing a great challenge for architectural schools everywhere.

There is a fair degree of anxiety in Pakistan's architecture schools about the teaching of architecture: we seem to be unsure about what to teach and how to teach it.

This gives rise to a genuine need for today's architectural educators to document their methods and practices. The current challenges in academics not only call for a revision of our architectural curricula but more importantly the analysis and discussions of the various pedagogies we use to successfully impart education.

Wednesday, October 24, 2018

Keywords: architecture, conference, CUI, paper, publications, presentations

Introduction to Saicon

The South Asian International Conference (SAICON) is an annual conference organized by the COMSATS University (CU). SAICON is a platform through which contemporary and developing ideas on business, economics and social sciences are discussed and academics and researchers interact with

the industry professionals. SAICON provides an excellent opportunity to researchers and professionals to network and discuss market changes and transformation which are shaping the market demographics. The SIACON strives to develop a community which encourages the exchange of ideas and facilitates learning.

Conference Theme Big data and artificial intelligence are causing tidal waves of disruption across industries. Organizations that fail to leverage these technologies may be disrupted. Innovation requires digital transformation of the organizations, which may involve new business models and processes. These challenges are especially difficult to meet because of acute shortage of data scientists.

The key challenge for business education today is not just to introduce courses in machine learning in their curricula but to mainstream data science across all areas of business education.

Go Green CIIT campaign

About Us

The Go Green CIIT campaign' is about focusing towards energy conservation and recycling of natural resources, so that the coming generations would benefit from decisions made today. Educational institutions around the world are being designed on the principles of green and sustainable architectural design. These institutions are proven examples of self-sustenance in energy conservation and following in their footsteps would enable CIIT to become the 'Pioneer institution' within Pakistan in addressing such an important global issue. The campaigns will act as a catalyst for CIIT to establish collaboration with World Society of Sustainable Energy Technologies (WSSET) at Department of Architecture and Built Environment, Nottingham University, UK.

During the Campaign the CIIT has planned such activities which will involve students and faculty members at the CIIT campuses and outdoors as well as series of lectures and video presentations by the experts of the concerned fields, an exhibition, poster competition, exhibitions and cleanup of various areas within the city, will be undertaken by the students and faculty.

The opening ceremony of the 'The Go Green CIIT campaign' was held Tuesday in front of CIIT Library Islamabad Campus. CIIT Rector Dr. SM Junaid Zaidi, was the chief guest. During his opening remarks, CIIT rector, said Initiatives like these can become a strong graphic campaign that would bring CIIT at par with other international institutions, which have addressed and are addressing this global issue of energy conservation.

Our Initiatives

REDUCE, REUSE AND RECYCLE

Reduce:

Save energy by turning off lights that you are not using

Save water by turning off the tap while you brush your teeth

Reuse:

Use all writing paper on both sides.

Reuse grocery bags instead of throwing them away

Use silverware and dishes instead of disposable plastic utensils and plates.

Store food in reusable plastic containers

Windows and doors, plumbing fixtures, and even brick can be successfully reused

Recycle:

Recycling allows all of these junk items to be used over and over again so that new resources do not have to be exploited and it conserves natural resources such as water, minerals, coal, oil, gas and timber

List of things you may be able to recycle

- Steel and Aluminum cans are melted down to make aluminum sheets that are used to produce new cans
- Cardboard
- Electronic equipment
- Glass (particularly bottles and jars)
- Metal
- Paper (Magazines, Newspaper etc)
- Plastic Bottles
- Lawn Waste (leaves, grass)

2. ENERGY CONSERVATION

- Recycling helps to conserve energy and as a result less greenhouse gases are emitted
- Convert your roof top in to Green to reduce heat intake, resulting in lesser usage of air conditioners
- Design buildings in a way that they are lit up naturally and have natural cross ventilations

- Use LEDs or energy savers, instead of ordinary bulbs

3. RENEWABLE ENERGY GENERATION (HARNESSING SOLAR ENERGY)

- Solar power is produced by collecting sunlight and converting it into electricity. This is done by using solar panels, which are large flat panels made up of many individual solar cells
- There is widespread popular support for using renewable energy, particularly solar and wind energy, which provide electricity without giving rise to any carbon dioxide emissions
- Harnessing these for electricity depends on the cost and efficiency of the technology
- Solar heaters, or solar thermal systems, provide environmentally friendly heat for household water, space heating, and swimming pools

4. SUSTAINABILITY

- Sustainability means renewing resources at a rate equal to or greater than the rate at which they are consumed
- Sustainability means living within the resources of the planet without damaging the environment now or in the future
- Sustainability means creating an economic system that provides for quality of life while renewing the environment and its resources
- In the case of architecture, sustainability is a concept that may apply to its whole vital process, from the extraction of raw materials, elaboration of the constructive elements, to the construction process, use, possible re-use and destruction of it
- Using -locally produced building materials shortens transport distances, thus reducing air pollution produced by vehicles
- Natural materials are generally lower in embodied energy and toxicity than man-made materials and they require less processing and are less damaging to the environment
- When natural materials are incorporated into building products, the products become more sustainable.

5. GARBAGE COLLECTION & REMOVAL

- Garbage must be collected in 3 different containers
- Paper & Paper Products
- Glass & Plastic
- Organic Material Such as Perishable food items

6. PROBLEMS RELATING TO CLIMATE CHANGE

- Temperature Fluctuation
- Changing Landscapes
- Wildlife at Risk
- Rising Seas
- Increased Risk of Drought, Fire and Floods
- More Heat-Related Illness and Disease
- Economic Losses

ORIC MISSION/VISION/SLOGAN STATEMENTS

Mission

- Promote a vibrant, innovative, and entrepreneurial environment for conducting quality research with an aim to grow knowledge economy.
- Strengthen university-industry linkages to formulate collaborative ventures with the corporate community and continuously improve CUI curricula for meeting corporate needs.
- Develop strong and long-term bonds with policy making and research funding agencies to support research, development, innovation and commercialization incentives.
- Through business incubation and research/innovation park, promote entrepreneurship amongst CUI faculty, staff and students.

Vision

“To be ranked amongst the best in research excellence and its market utility.”

Slogan

“Transforming research into prosperity”

Terms of Reference

The Terms of Reference for ORIC are as follows:

- Enhancing research culture
- Promoting inter/cross disciplinary research

- Building university – industry linkages
- Inculcating entrepreneurship among researchers
- Generating intellectual property through research, innovation, and commercialization
- Establishing technology/innovation/business parks
- Catalyzing technology transfer through spin off companies and licensing
- Augmenting capacity building of research/corporate community

4. NUST

VISION

To evolve NUST into a world class Centre of Excellence among Higher Education Institutions, leading the transformation of Pakistan towards a rapidly developing Knowledge Economy to realise the national objective of a progressive and prosperous country among comity of nations.

MISSION

In pursuance of NUST vision, strive to achieve following mission goals:

- Develop NUST as a Comprehensive, Academic and Research-led university with a focus on Creativity, Innovation and Entrepreneurship so as to amicably negotiate Social, Economic and Environmental challenges faced by the country.
- With foundations based on principles of Merit, Transparency and Fair Play, nurture talent by providing equal opportunity to all segments of polity.
- Empower students to develop their full potential, acquiring leadership and social skills, to act as agents of change within the society.
- Improve global visibility by enhancing mutually beneficial linkages with international organisations and partner universities.
- Strengthen NUST financially to enable the university to achieve its goals by raising awareness among local and international Pakistani diaspora including Alumni base around the world.
- Ensure conducive learning and working environment for students and staff at par with international standards.?

RECTOR'S MESSAGE

It is indeed a privilege to lead Pakistan's most vibrant institution, which shines as a beacon of excellence on the horizon of higher education. From a modest beginning with military engineering colleges, NUST has gained towering stature, both at the national level as well as internationally, addressing the needs of a fast changing world. The University main campus continues to expand, both academically and in terms of physical environment, whereas, our commitment to scientific leadership continues to grow unabated. Over the years, NUST has developed a knowledge ecosystem which inspires entrepreneurship and stimulates high-impact research. It is now recognized internationally as a research-led, socially-engaged university, distinguished by its multi-disciplinary programmes and focus on emerging technologies. We have research collaboration with 109 universities worldwide, with 175 faculty members and 76 students studying in foreign universities.

NUST is poised to play a leading role to propel the country into knowledge-driven economy, thus improving the lives of masses and contributing towards betterment of society, through need based innovations, nurturing versatile and creative young minds who have the will and enthusiasm to make a difference and stride confidently into the future as society's torch bearers. The University's future roadmap will be aligned so as to spearhead national efforts to achieve Sustainable Development Goals and Vision 2025 of the Government. The manifestation of this Vision is imbibed in our plans to establish Pakistan's first Science and Technology Park, aimed at transiting the country towards high-tech export oriented economy. God willing, I foresee NUST attaining these sublime objectives by synergizing its strengths in pursuit of its defined vision.

On behalf of my staff and faculty, I invite you to join this elite hub of academic excellence, which provides ideal environment for exploring new frontiers and incubation of innovative ideas.

Lieutenant General Naweed Zaman, HI (M), (Retired)

NETWORKING & PARTNERSHIPS

In line with one of its strategic thrusts, namely Internationalization and Global Perspective, NUST has developed strong international linkages with foreign universities and institutions of repute. The purpose of these linkages is to encourage a two-way flow of knowledge at minimum expense. This aspect also adds a global perspective to our activities and assists us in remaining current with the latest technological advancements. In most cases, the linkages have gone beyond student and faculty exchanges to active research collaborations.

Find out more:

- NUST International Office (NIO)
- Industry Academia Linkages (IAL)

NUST IDENTITY

The Book of Knowledge lights up the darkness, though the Vine of Wisdom which bears the two moons and stars facing towards the East and the West, symbolizing the diversity of disciplines and the fruit of knowledge.

The rising sun brings change, hope and enlightenment. It emanates inspiration and from the light of knowledge, four birds take wing from the nests of light, and spread out to the four corners of the world, symbolizing the quest for spiritual gratification through knowledge and wisdom.

The NUST Blue is a color that represents the future. It carries all the characteristics of the color blue, like dignity, grace, freshness, professionalism, prudence and resolve.

WELCOME TO NUST CIE

National University of Sciences and Technology (NUST) with the mission “To develop NUST into comprehensive research led university with a focus on technology, innovation and entrepreneurship” has devoted significant attention to R&D and its commercialization.

In consonance with this NUST established Center for Innovation and Entrepreneurship (CIE) with an aim to propagate /establish a research culture at NUST which caters for the national needs.

WELCOME TO ORIC

The National University of Sciences and Technology (NUST), with the mission “to develop NUST into a comprehensive research led university, with the focus on technology, innovation and entrepreneurship,” has devoted significant attention to R&D and its commercialization. In consonance with this, NUST established a Directorate of R&D with an aim to propagate/ establish a research culture at NUST which caters for the national needs. Subsequently, a Research & Development and consultancy policy was formulated and approved in 1997 which was updated in February 2000 and then in December 2004. Over the recent past the Higher Education Commission (HEC) has put its emphasis on directing universities towards changing the economic landscape. In this context in January 2011, NUST received guidelines from HEC for forming Offices of Research, Innovation and Commercialization (ORIC). While some of the essential ingredients required by HEC for the formulation of ORIC were already functional at NUST, a need was felt to reorganize the present setup exactly in line with HEC requirements. As such the former R&D Directorate was renamed as Research Directorate and another Directorate of Innovation and Commercialization (I&C) was created. By combining these two directorates, the ORIC at NUST was created so that an ecosystem for innovation centric R&D and its commercialization could be nurtured at NUST. With the reorganization of the research setup, NUST research, development and consultancy policy also needed a major revision. This policy has therefore been redrafted to cater for the needs of this new setup. The new policy was approved by the NUST Academic Council in April 2012.

WHAT IS PCTN

Pakistan Chapter of Talloires Network (PCTN) is committed to promoting community service, civic engagement, and service learning in higher education under the strategic focus provided by HEC and The Talloires Network. Based at Islamabad campus of National University of Sciences and Technology (NUST), it is a consortium of 64 Pakistani universities working to build a culture of volunteerism at institutions of higher education in Pakistan. It is a collaborative chapter with the US based organization The Talloires Network (TN). PCTN was formed on July 1, 2013 at NUST in the presence of Minister Planning, Minister S&T, ED TN Mr Rob Hollister and ED HEC. At that time 35 Pakistani universities joined it. Since then the membership has been steadily growing. Recently Rector NUST, Engr Muhammad Asghar who is chair PCTN, has also been elected to the Steering Committee of The Talloires Network (TN) for a 3 year term starting in 2015.

VISION

Pursuing HEC's strategic thrust of universities building economies, PCTN envisions to capture dynamism of Pakistani Universities' youth and impact the society positively by incorporating civic engagement and community service into their research and teaching missions.

MISSION

To strengthen civic roles and social responsibilities of higher education by building a national movement of engaged universities

PCTN OBJECTIVES

- § Curriculum development for service learning
- § Maximum use of tools and instruments for the purpose of impact evaluation in service learning programs
- § To strengthen Pakistan Higher Education institutions as well as the nation's civil society more broadly
- § Build and foster a culture of volunteerism in Pakistani academic institutions
- § Discussions centered on ways to tap the unrealized potential of universities and their students to tackle pressing problems in their societies, and on forging a collective vision for advancing in the field of community engagement in higher education worldwide
- § Vibrant media strategy for sustainability
- § Promoting the mission and vision of the Talloires Network across all 136 universities in Pakistan and motivating/facilitating them to become its members and play a meaningful role in enhancing community engagement

§ Technology being NUST specialty is used to the maximum in order to bring positive change through PCTN

§ Involving other key organizations in Pakistan as partners in this initiative, such as British Council and HEC

WHAT PCTN DOES

- PCTN publishes bi-annual newsletters to share and highlight the community service activities of its member universities across Pakistan
- Maintains a website <http://www.nust.edu.pk/pctn/Pages/default.aspx> which provides links to community service activities of member universities
- Holds seminars and conferences on various community issues in Pakistan
- Gives out best community service awards to recognize efforts of students and faculty across Pakistan
- Connects members for cross training activities related to community service
- Promotes making community service a part of curriculum

5. AIR University

Mission

The mission of Air University is to achieve excellence in teaching and research for producing graduates with sound professional knowledge, integrity of character, a keen sense of social responsibility and a passion for lifelong learning. The University shall stand committed to creating an environment conducive for attracting the best students, faculty and supporting staff for contributing to the development of a prosperous, peaceful and enlightened society.

Vision

Air University aspires to be among the leading national universities, excelling in teaching, learning, research, innovation and public service.

German Ambassador visits Air University

30 Jan 2019

ISLAMABAD (Jan 29, 2019): Ambassador of Germany to Pakistan HE Martin Kobler has said that he is deeply impressed with and is in love with Pakistan due to the warm hospitality he always received from the Pakistani people and the heritage-rich beautiful landscape of the country. He made these remarks during his visit to Air University, Islamabad. On the occasion, the German envoy was warmly welcomed by the Vice Chancellor, Deans, Directors, HoDs, faculty members and a large number of students.

The ambassador, during his visit, admired the state-of-the-art building and an overall aura of modernity by labeling it as a “modern”, “friendly” and “green” University which is right way headed into the future. Advising the students intending to apply for Masters and PhD admissions in German Universities and subsequently for a German visa, he said that they should apply for admissions and then for visa as early as possible. He also advised that after booking a visa appointment students must show up for visa interview and make sure that they brought with them all required documents. "Otherwise, a new visa appointment may take as long as six weeks," Kobler said.

While answering a question, the ambassador regretted that Pakistan’s present input to research and education was not adequate enough which was evident from the fact that a nation armed with nuclear weapons was surprisingly not even able to produce export quality bicycles and relied heavily on imports from other countries for even such minor commodities. The reason for such deficiency, according to him, was definitely not a lack of potential, but a lack of serious and focused approach. He assured that Germany was ready to support and cooperate in various areas of development in order to empower Pakistani youth and make Pakistan leap forward in the 21st century.

The German ambassador, during a lively question and answer session, showed a strong desire to further strengthen bilateral relations by enhancing cooperation especially in the areas of youth development & education, climate change & energy, and modern economy. On the occasion, Ms. Inge Iqbal, Director German Academic Exchange (DAAD) in Pakistan also explained different opportunities available for academic and research collaboration between Pakistan and German universities.

International Conference on Radicalization: Perceptions, Realities and Challenges of Campus Life

26 Sep 2018

International Conference on Radicalization: Perceptions, Realities and Challenges of Campus Life
September 26-28, 2018

Organized by

Department of Humanities

6. Karakoram International university

Vision

The Karakoram International University is a leading institution of higher learning committed to social development and evolution of peaceful and pluralistic societies in the mountainous areas of Pakistan and geographically similar regions elsewhere.

Mission

To promote human development at all stages of life; through growth, evaluation, synthesis, dissemination and application of knowledge, and provide a service that values sustainable, humanitarian, and economic development of the environment.

Values

The University is committed to uphold and promote:

- Excellence and quality in all its functions including scholarship in its broader aspects, careful management and ethical considerations.
- Acceptance of diversity and pluralism, with particular regard to gender, race, color, beliefs, culture and religion.
- Holistic development of its students, faculty and staff as managers and critical users of knowledge and human resource.
- A culture of inquiry, creativity, critical thinking, and free exchange of thought.
- Relevance of its functions to the goals of development of individuals, society and environment.

Strategy

- Recruit and retain highly qualified faculty who are committed to deliver the expectations outlined in the vision and mission.
- Ensure merit and quality in the admission of students.
- Develop and deliver knowledge content that is relevant to the local context; that capitalizes on local comparative advantages.
- Promote interactive and student centred learning.
- Develop a culturally symbolic (architecture) and inviting campus environment.
- Forge partnerships and networks with global knowledge networks for exchange of relevant knowledge, faculty, and student.
- Undertake continued faculty and staff development to maintain excellence in quality.
- Promote multidisciplinary integration of educational programs in order to enhance the versatility and entrepreneurship of its studies.
- Facilitate “access” through “distributive” learning and “decentralization” (KIU is a multi campus University).
- Seek multiple avenues for resource development.

Karakoram international university

Integrated Mountain Areas Research Center

- Over View

The Northern Mountainous Region of Pakistan is regarded as the most glaciated landscape on earth outside the Polar Regions, also known as water towers of Asia. The entire area serves as a living nature museum to study the unique geological, geographic, ecological and socio-cultural features of mountainous areas and societies. The Karakoram International University (KIU), Gilgit situated in northern Pakistan at the confluence of the world's great mountain ranges of Karakoram, Himalaya, Hindu Kush and Pamirs, strives to promote knowledge on mountains and associated resources.

In order to institutionalize the academic, research and development initiatives, aimed towards knowledge of mountain societies and resources, the University has established a Centre namely Integrated Mountain Areas Research Centre (IMARC). Establishment of the Centre started in 2010 with the financial and technical support of Social, Economic and Environmental Development (SEED) Project for Central Karakoram National Park (CKNP), an initiative under Pakistan-Karakoram international university

- Objectives
- To initiate academic programs to develop qualified human resource to cater for the needs of sustainable mountain development including teaching, learning, and research;
- To embark upon a research program and engage in various national and international research and academic organizations to promote research on diverse fields of mountain studies;
- To design and implement human and institutional development programs including capacity-building, community outreach, training, and policy input to promote sustainable mountain development in Pakistan and elsewhere in the world; and
- To act as a knowledge hub on mountains, associated resources, and societies.

Integrated Mountain Areas Research Center

- Mandate
- § Running Academic Program in Thematic Areas
- § Conducting Research on Mountain Issues
- § Capacity building

Integrated Mountain Areas Research Center

- Thematic Areas
- Applied geology, geohazards, and sustainable mineral resource development
- Atmospheric sciences and climate change
- Mountain Forestry

- Wildlife Ecology, Conservation, and Management
- Glaciology and mountain hydrology
- Water resources management
- Rangelands Conservation and Management
- Innovative technologies for territorial management (GIS & Remote Sensing)
- Rural development and management
- Sustainable mountain agriculture
- Tourism and hospitality studies
- Food Security and Climate Change
- Disaster studies
- Biodiversity and Conservation
- Soil Sciences
- Livestock management
- Mountain societies and languages

Integrated Mountain Areas Research Center

- Collaborations

International

- Chinese Academy of Sciences (CAS)
- Melbourne University Australia
- ICIMOD
- International Fund for Agricultural Development (IFAD)
- Kashgar University CHINA

National

- Planning & Development Department, Government of GB
- Forests and Wildlife & Department Government of GB

- Agriculture, Livestock & Fisheries Department, Government of GB
- Tourism, Sports, Culture and Youth Affairs Government of GB
- Labour, Industries and Minerals, Government of GB
- Ministry of Climate Change Islamabad
- World Wildlife Fund for Nature (WWF- Pakistan)
- Center for Research on CPEC (KIU-GB)

Center for Research on CPEC

- About CRC

University has established the “Center for Research on CPEC”. Given the profound importance of CPEC, understanding its implications and fashioning appropriate development policies is the sine qua non for the policymakers. In an era where evidence-based policymaking is the hallmark of successful governments, the scarcity of research and data poses a significant challenge to understanding CPEC’s benefits, let alone channeling them into development. Center for Research on CPEC would fill that gap by carrying out baseline studies and thus generating data for the researchers to investigate the implications of CPEC.

Center for Research on CPEC

- Thematic Areas
 1. Thematic Area: Natural Hazards
 2. Thematic Area: Bio-Diversity and Conservation
 3. Thematic Area: Environmental Issues
- Theme Lead: Professor Dr. Khalil
- 4. Thematic Area: GIS and Remote Sensing
- Theme Lead: Dr. Aftab Ahmed Khan
- 5. Thematic Area: Economy and Trade
- Theme Lead: Dr. Saranjam Baig
- 6. Thematic Area: Businesses, Marketing, and SMEs
- Theme Lead: Dr. Saranjam Baig
- 7. Thematic Area: Social Development

- Theme Lead: Dr. Sadiq Hussain
- 8. Thematic Area: Agriculture and Food
 - Theme Lead: Dr. Sartaj Ali
- 9. Thematic Area: Businesses, Simulation, and Modeling
 - Theme Lead: Dr. Asad Ullah
- 10. Thematic Area: ICT
 - Theme Lead: Dr. Sabit Rahim
- 11. Thematic Area: Silk Route: Culture, Heritage
 - Theme Lead: Dr. Tasawar Baig
- 12. Thematic Area: Conflicts and Indigenous Rights
 - Theme Lead: Mr. Sultan Abbas

KIU becomes in world 1000 universities adopting Green Metric Initiatives

KIU selected in World 1000 Universities adopting Green Metric initiatives during 2018. The initiatives include the use of Renewable energy, green buildings, environment-friendly design etc. The certification is done by University of Indonesia and KIU has joined it last year at the advice of KIU. The VC KIU Prof. Dr. Attaullah Shah congratulated KIU team and Mr.Sadat Sher Khan for joining the club. He advised him to develop an implementation plan with HoDs and Students' Societies. This may include greening the campus with more plantation, waste Management, Cleanliness of Campus, involving students in these initiatives to create awareness as well. KIU will continue its endeavors to enhance its ranking by adopting more Green initiatives under the guidance if HEC and University of Indonesia.

MoU signed between KIU and Pakistan Council of Renewable Energy Technologies

MoU signed between KIU and Pakistan Council of Renewable Energy Technologies (PCRET) to establish Centre of Renewable Energy and Appropriate Technologies (CREAT) at KIU. The MoU was signed by Vice Chancellor KIU Prof. Dr

Attaullah Shah and DG PCRET Dr.Baqir Raza. Both the organizations will jointly arrange seminars, conferences, and workshops for creating awareness about RE and it's an application.

PCRET and KIU will also organize National and International Conferences on Renewable Energy Technologies including Solar PV and Thermal, Biogas, mini hydel etc. The team of PCRET will soon visit KIU to help them in establishing the CREAT. Registrar KIU Dr. Abdul Hameed Lone was also present in the ceremony.

MoU signed between KIU and CRDO at Islamabad

KIU signed a MoU with community research and development organization CRDO for collaborative activities in the field of Tourism, Environmental Sciences, Forestry, Biology, Earth Science, Disaster Management and Social Sciences. Prof. Dr. Attaullah Shah, Vice Chancellor KIU and CEO of CRDO were the signatory.

It was also attended by Dr. Nasir Mehmood Additional Registrar PEC, Hafiz Ehsan ul Haq Member Planning CDA. Mr. Imran Inam from CRDO signed MoU. KIU and CRDO will work together in the areas of Entrepreneurship, mineral processing, construction industry, Social Sector Development, Women Empowerment, Hospitality & Tourism Management.

First Plantation Campaign Started at KIU Diamer Campus

First Tree Plantation Campaign started at Karakoram International University Diamer Campus, Chilas with an aim to create awareness among students about the importance of trees and to highlight the significance of green and healthy environment. We are highly thankful to Conservator Forest, Diamer & Astore Division for granting of 6500 trees to the campus. 200 trees have already been planted.

Karakoram University Business Incubation Center

Karakoram University Business Incubation Centre (KUBIC) is a project of HEC to encourage universities to impart the basic entrepreneurial thinking to the students while they are studying. Soon after its inception by the end of 2015, KUBIC established linkages with leading NGOs of the area working on the similar themes and started programs related to Entrepreneurship with a focus on creating an entrepreneurial eco-system in the university. KUBIC is now actively engaged with the students and market actors through seminars, consultative workshops, and training programs.

Vision

“To transform the socio-economic conditions of the mountain communities through the spirit of entrepreneurship”

Mission

“To train the future generation of entrepreneurs in Gilgit-Baltistan by providing required skills in a conducive environment that fosters creativity and innovation”.

Activity Highlights

Series of seminars have been conducted so far to promote entrepreneurial thinking among the students in collaboration with leading organizations like YES Pakistan, University of Oregon USA, Agha Khan Development Network, Aurat Foundation etc. During their visit to KIU, the team of ISRA University also conducted workshops on basics of enterprise development which was highly appreciated by the participants.

A grand event where entrepreneurs from across the ten districts of Gilgit-Baltistan participated and shared their success stories with the students of KIU. Agfa Khan Rural Support program awarded each successful start-up with cash prizes up to fifty thousand.

The first-ever Business Plan Competition was held at KIU to appreciate the best business ideas. It was a three-level competition and 12 ideas were shortlisted for the final. All the start-up ideas received cash prizes and best ideas were recommended for further support to another mega program run by a private sector organization. Local business community, managers of financial institutions, enterprise development experts and representatives of Chamber & Commerce attended this mega event.

Business Incubation

Business incubation is a business support process that accelerates the successful development of start-up and fledgling companies by providing entrepreneurs with an array of targeted resources and services. These services are usually developed or orchestrated by incubator management and offered both in the business incubator and through its network of contacts. A business incubator's main goal is to produce successful firms that will leave the program financially viable and freestanding. These incubator graduates have the potential to create jobs, revitalize neighborhoods, commercialize new technologies, and strengthen local and national economies.

Critical to the definition of an incubator is the provision of management guidance, technical assistance and consulting tailored to young growing companies. Incubators usually also provide clients access to appropriate rental space and flexible leases, shared basic business services and equipment, technology support services and assistance in obtaining the financing necessary for company growth.

First Batch Of Incubates At KUBIC

The first batch of incubates has been inducted by KUBIC in the first week of March 2017. Through a standard procedure and after a Business Plan Competition Eight ideas were offered placement in the KUBIC. These incubates are working under the supervision of mentors to turn their raw ideas into successful start-ups.

7. IQRA UNIVERSITY

where your future begins!

For a developing country, like Pakistan, a demand oriented workforce afire with professional excellence can bring about a knowledge revolution. Welcome to revolution in education – IQRA University. The IQRA University is chartered by the Government of Sindh vide Sindh Government Ordinance No.VI of 2000 having Campuses across Pakistan and is having collaboration with foreign universities. We offer a diverse range of graduate and post-graduate courses as well as PhD programmes of International level in

Management Sciences, Computer Sciences and Engineering, Education and Learning Sciences, Media Sciences, and Fashion Designing. At all Campuses, we incessantly strive to create congenial learning environment with lots of facilities. Technologically equipped classrooms, with high-tech computer laboratories with internet facilities and rich Information Resource Centre are established at all the Campuses for comprehensive academic training. Special services, such as, placement, transport and housing, etc., are also provided to the students.

Founder Chancellor's Message

“Iqra,” the first revealed word of the Quran, translates, literally, to “read.” It is a divine injunction that means that we must continuously endeavor to seek knowledge. In keeping with this mission, I started Iqra University, in order to bring an international-level education to the youth of Pakistan. Through the use of modern teaching methodologies, highly qualified faculty, and state-of-the-art campuses, we endeavor to be a world-class institution of higher education and research, promoting technical skills, critical thinking and public duty, to help develop a prosperous and progressive society.

Our success in achieving this mission, to offer an unparalleled education to the youth of Pakistan, is evidenced by the many accolades Iqra University has received. In the past year alone, we have been ranked Number One Business School in Pakistan by HEC, Number One University in Sindh by the CIEC and the University with the Highest Research Output in Management Sciences by the HEC. We have the largest PhD faculty pool of any private university in the nation and our students’ many achievements have received recognition both at home and abroad.

Education is the only solution to the problems faced by our nation. At Iqra University, we understand that our students of today are the leaders of tomorrow. They are the future of our country. They will run our government, manage our businesses, and serve our country. Thus, we here at Iqra University provide an environment where we foster well-rounded, well-groomed individuals who are competent to take on challenges later in life and meet them with success.

Mission Statement

To be a world-class institution of higher education and research, promoting technical skills, critical thinking and public duty, to help develop a prosperous and progressive society.

Core Values

- Respect
- Merit
- Courtesy
- Excellence
- Equality

- Honesty
- Innovation
- Dedication

Vision Statement

To transform the lives of youth through world class education at an affordable price.

Vision Statement (Objectives)

- Develop Leadership
- Promote Entrepreneurship
- Promote Advance Learning Methodology
- Promote Training
- Promote Lifelong Learning
- Uphold Islamic Values
- Promote Industry and University interaction

Vision of the Business School

To produce market relevant professionals and entrepreneurs.

The Mission Statement Of the Business School

“To offer world class education with focus on research, technical skills, critical thinking and ethical values in a technologically equipped environment, conducive to develop entrepreneurial and managerial skills for the betterment of business community & society”.

Introduction

Iqra University traces its geneses to January 1998, when it started its operations in Karachi. The Government of Sindh chartered the University; vide Sindh Ordinance VI of 2000. Currently, Iqra University has campuses in all Provincial Capitals of Pakistan and the Federal Capital, Islamabad. The Islamabad Campus received recognition by the Higher Education Commission (HEC), (the then UGC), in March 2001 under document reference No.16-23/ugc/secy/99/60. Recently HEC has awarded category W', i.e., A' to Islamabad Campus because of its highly sophisticated infrastructure and state of the art academic/research facilities.

- The University is the brainchild of Mr. Hunaid Lakhani, Chancellor of Iqra University, whose aim was to form an institution of higher learning that could provide quality education to students in Pakistan.

- Iqra University has approximately five thousand students in its portal studying in disciplines such as Computer Science, Information Technology, Development Studies, International Relations, Fashion Design, Engineering, and Business Administration.

- With the commitment to provide quality education to the youth of Pakistan, Iqra University established a distinctive new campus in the capital city, Islamabad. This purpose-built campus is spread over a lush green area of five acres in the heart of the educational sector, H-9, home to some of the other most prestigious educational institutions in Islamabad.

- Graduate, undergraduate and continuing education programs are offered in all disciplines including Electrical Engineering, Computer Science, Business Administration, International Relations, Development Studies, Fashion Design and Textile Design. The programs in these disciplines are conducted under the supervision of a highly qualified, professional and motivated Faculty. The university curricula are not only competitive but also in line with academic practices globally.

- Campus facilities include a well-stocked library, state of the art computing facilities, well equipped teaching labs, central air-conditioned classrooms equipped with the latest audio-visual aids, an auditorium, a seminar room, sports facilities and a prayer hall.

Students' time at Iqra University Islamabad Campus is one of the most exciting, self-fulfilling, and challenging periods in their lives. Individual attention is given to students to develop and enhance their technical and analytical competencies. Students are also encouraged to participate in various extracurricular and academic activities to facilitate their personal and professional development.

Aims & Objectives

a. The main objective of the university is to provide high quality, comprehensive educational and training opportunities that are compatible to changing needs of the students. Through its academic programs, the university prepares its students for the challenges of the 21st century and empowers them to meet the ask of a rapidly changing world.

The university is dedicated to providing faculty, staff, and students with the environment and infrastructure that help them develop potential for scholarship, creative work, professional realization, and service. In fulfilling the mission of the university, the Islamabad Campus cultivates in its students:

- b. A strong foundation of knowledge and skills,
- c. The ability to think critically and tolerate differences of opinion,
- d. An understanding and respect for ethnic and cultural diversity,
- a. Human decision making which is formed and ethical,
- b. Adaptability to the workplace,
- c. A sense of being responsible citizens of the society,

- d. The values of hardwork and dedication.

Goals

Education and Research

- a. Encourage a spirit of inquiry and criticism through research and publication.
- b. Explore new horizons of scientific knowledge needed for developing national resources.
- c. Promote awareness and realization of the importance of education and research in achieving a competitive status among other nations.
- d. Relate fundamental concepts to practical applications, and provide students with the necessary skills to function as responsible professionals.
- e. Use a variety of modern mechanisms to adopt appropriate new technologies and methodologies.
- f. Analyze organizations' information requirements and match them with available technologies and methods.
- g. Develop strong interpersonal and communication skills.
- a. Provide various exciting and rewarding career opportunities, which are greatly needed for our rapidly developing country.

Why Choose IU?

- IU has been ranked Number-1 by Higher Education Commission in Business Education Category (2015).
- IU has been chartered by the Government of Sindh via ordinance VI of 2000 and recognized by the Higher Education Commission.
- IU has been rated as the best private sector university in Sindh as per CEIC evaluation.
- IU has been rated by CEIC as a Six Star Institution.
- IU has been placed in "W4" category, the top category, by HEC.

ORIC

Introduction

Iqra University's Office of Research, Innovation and Commercialization (ORIC) is the set of strategic, operational and tactical design that facilitates in the commercialization of research. The idea is to develop

university's strategic research policies, technology transfer, entrepreneurship and commercialization activities that strengthen and sustain the local and national economy.

Objectives

ORIC affirms the broad mission of Iqra University in promoting advance research education for the undergraduate and post-graduate studies with an intention to enhance the value of Iqra University.

Major objectives of ORIC are:

- To grow research efforts, innovation and generate revenues by commercialising it.
- To create awareness regarding product development, industrial design or sourcing among students.
- Strengthening the relationship between university and industry.
- To attract potential investors from the industry to help incubator companies in accelerating their business.
- Maintaining stature of Iqra University by strengthening international linkage

Role and Responsibilities of ORIC

- Understanding the operations of academic research –how to preserve them, how to solve the problems that arise in them, and how to capitalize on their strengths—is one of ORIC's primary role and responsibility.
- To undertake research activities as directed by the HEC.
- To engage students and organize conferences, workshops, trainings for faculty, students and alumni.
- To promote and facilitate quality research with commercialization aspect.
- To create maximum benefit for industry, keeping in focus the on-going trends.
- Building and sustaining relationships between internal and external stakeholders.
- Securing IP rights (Patents, copyrights, designs and trademarks).

8. QUSIT

Vision & Mission

Let There Be Light and Life Long Learning

Vision

To help establish a knowledge-based, tolerant and progressive society that may strive for the establishment of a just socio-economic, political and moral order in the Islamic Republic of Pakistan

Mission

To help our succeeding generations in the acquisition of academic and moral excellence and to facilitate them in their quest for inquiry, so that they may know the truth, which, in turn, will emancipate them from ignorance & enable them for service to mankind and submission to Allah Almighty.

Objectives

Man, we believe, is created as a vicegerent of Allah in this world. As an out-pouring mercy of Allah, he has been endowed with knowledge to fulfill his responsibilities as His vicegerent. Now knowledge is of two kinds: (1) Acquisitional knowledge and (2) Revelational knowledge. For acquisitional knowledge, the potentials (such as Eyes, Ears, Head and Heart) are laid into the human constitution, while revelational knowledge (that is the wisdom and values) is communicated to him by the Holy Quran through His Prophet Muhammad (PBUH). Knowledge and Education, we are convinced, are meant to train man for the fulfillment of his duties (as His vicegerent) in this world. In an ideal system of education both these forms of knowledge should be dovetailed wherein wisdom (revelational guidance) should supervise our acquisitional knowledge (i.e. Knowledge gained through natural and social Sciences). In Qurtuba System of Education our primary objective, is to struggle for the realization of this ideal form of education. The Ultimate objectives are:

- To provide environment for high quality teaching and learning through imaginative, stimulating and rigorous professional classroom practice.
- To give value to each individual's right to develop his/her full potential in every respect.
- To provide an effective system of personal care and academic support.
- To encourage students to seek academic and moral excellence.
- To prepare students for creative and constructive thinking.
- To encourage the spirit of tolerance and understanding of other cultures, races, faiths and classes.
- To prepare students for optimum public service.
- To produce responsible citizens and dynamics leadership for the country.

ORIC Introduction

After receiving the intimation regarding establishment of ORIC, the Office of Research, Innovation and Commercialization is an integral part of QUSIT. It aims to provide strategic and operational support to the University's research activities/program, and have a central role in facilitating the University's research outcomes. ORIC fosters a research environment that promotes the research and consultancy culture and the culture of basic research which allows researcher to engage in a productive research activity.

ORIC is devoted to Bridge the gap between theory and practice by devising frameworks that can determine patterns of private business in informal sector. This can be achieved by three ways.

1. Creating Academic – Practitioner Interaction Environment.
2. Promoting Student – Practitioner Interaction Environment.
3. Marketing and Promotion of Academic Excellence.

ORIC is committed to play a central role in facilitating the University Industry linkages for commercialization of research. It is determined to establish links with donor agencies and Industries. It is dedicated also to serve as channel to process all the Research proposals and Thesis sent to HEC or other agencies. It makes sure to promote the researches relevant to Pakistan socio-economic needs.

ORIC at QUSIT provides guidance to Conduct and participate in conferences, Seminars and training programs for faculty awareness and faculty industry linkages. It also organizes trainings and workshops at national and International level and conducts and coordinates symposiums and seminars at national and International level. It intends to help faculty, staff and students to comply with all ORIC and QUSIT policies and procedures.

ORIC also helps in developing business plans by the students and faculty member to eliminate the chasm in student, faculty n Practitioners interaction and by this achieving the goal to bring theory into practice.

ORIC Objectives

1. Assure that the quality of research reflects the highest international standards
2. Provide valuable advice and support for faculty to pursue quality research
3. Safeguard compliance with all policies, legal requirements and operational standards of the University
1. Ensure that all research programs and policies reflect the core values of academic freedom, professional integrity and ethical conduct Support strategic research Promoting and enhancing cross-cutting and multi-disciplinary research initiatives directions and policies of QUSIT
2. Improving integration of research and education at all levels of the institute
3. Advance the stature of the University among the world's best research institutions
4. Increase and diversify external research funding
5. Improve translation of research into the public benefit
6. Promote entrepreneurship, technology-transfer and commercialization activities that energize and support the local and national economy
7. Strengthen university-industry relationships

8. Enhance integration of research and education at all levels of the university

Seminar on Climate Change

*****Climate Change and Sustainable Development using Green Infrastructure for Storm water*****

A one day seminar on the mentioned topic was held on April 25, 2018 at Qurtuba University, Peshawar Campus.

The Resource Person "Dr. Imtiaz Shah" a renowned scientist who spend more then 30 years in this area. He is working from last 25 years as Senior Environmental Engineer in Canada and also serving as Adjunct Professor in University of Western Ontario.

Faculty members and students attended the seminar and they showed great interest in the climate change and green infrastructure.

The seminar was ended with a vote of thanks.

9. SZABIST

The Vision

SZABIST aims to be a globally recognized institute for excellence in education, research, development, and distinction in service.

The Mission

SZABIST is committed to produce highly qualified professionals to:

- Meet national and global contemporary needs;
- Conduct cutting edge research and development;
- Provide hi-tech scientific and technological expertise;
- Meet current and future socio-economic challenges;
- Meet global citizenship responsibility

About research centres

SZABIST comprises a host of research centers that provide practical and sustainable solutions to the issues of a developing country such as Pakistan.

1. SZABIST Centre for Biosciences Research (SCBR)
2. Sustainable Development Research Centre (SDRC)

SZABIST has established Stem Cell Research Centre (SCRC). Stem Cells and related fields are said to become a force to reckon in the future especially as far as bio-medicine and technology are concerned. This kind of research will enable the programming of cells towards specific organs that can breathe new life into damaged tissues of the body. Thus, SCRC hopes to establish laboratories that focus on the tissue culture of human tissues/cells, with particular focus on cancer.

Most importantly Sustainable Development Research Centre (SDRC) has been developed for research on a variety of policy initiatives for the promotion of renewable energy in the country along with generating awareness about the same.

Welcome to SDRC

On 5th January 2010, the foundation of Sustainable Development Research Centre SDRC was laid. The premise of existence of this centre is to create a synergy between socio economic development and environment. The underlying aim is bring about growth and development without endangering the environment or the climate. Within this context, SDRC would have its focus on energy, environment and sustainable business and rural development.

Energy from fossil fuels is the major contributor of carbon dioxide in the environment. Two prong strategies would be used to address this particular issue. The advocacy of renewable energy technologies would be used to change the source of energy to an environment friendly choice and simultaneously the least cost option of energy efficiency and conservation would be adopted to reduce the use of energy.

Sustainable Business and rural development would encompass thorough investigation of the businesses and rural communities following by customized sustainable alternative energy solutions catering to the development with minimum carbon footprint. For businesses, this would mean efficient processes resulting in energy conservation and for rural communities it would be growth and development with least cost sustenance requirements.

The fundamental precedence of SDRC would always remain the mindfulness of environment and sustainability.

The Sustainable Development Research Center (SDRC) was established on Jan 5, 2010. In the wake of global commitment on Sustainable Development Goals (SDGs), SDRC was revamped in August 2016 with a view to align it with contemporary agenda of SDGs.

Objectives

- Expanding knowledge on the SDGs through conducting seminars and case study analysis at different platforms.
- Providing research assistance and policy analysis on different areas of development specially improved nutrition, reduced maternal and infant mortality rate and alleviated poverty.

- Streamline SDRC with other partners in the public sector, private sector and with the international development partners
- Making SDRC a self-sustained organization through taking up consultancy work with public sector and development partners

New initiatives

A survey of faculty members was carried out in order to make the faculty aware of the objectives of SDRC, a briefing session was organized on 19th July 2016. A meeting with faculty on 24th August, 2016 where around 15 faculty members showed up who will now serve as the core group. A meeting was organized on 26th September 2016 with all the Head of Departments (HODs) to discuss the possible ways of integrating SDGs in their particular departments as well as collaborative projects. Awareness session on SDGs for Independent Research students who are being encouraged to work with SDRC in the context of SDGs.

SDRC - Projects

- Investing in Family planning for Sustainable Development Goals 1 to 6
- Sustainable Development of Jaffer Jokhio Goth

JafferJokio village is a picture of pathos and deprivation....

help us help them become self-reliant.”

- CDM- Making SZABIST Energy Efficient
- Indigenization of Renewable Energy in Pakistan-Policy Making
- Development of Comprehensive Database of Renewable Energy in Pakistan

Research Projects

- Eco Cooler System (Goal 13-Climate Change)
- Missing Children Awareness (Goal 11-Make Cities Inclusive and safe)
- Healthy Food Provision to Street School (Goal 2-Zero Hunger)
- Neglected Smiles (Old Home of Darus Sukun-Goal 10 & 16- Reduce Inequality, Promote inclusive societies respectively)
- Green Bin Welfare Project (Goal 11-Sustainable Cities and Communities & Goal 4 Quality Education)
- Inclusive Education (Ida Rieu School-Goal 4 Inclusive and Quality Education)
- Indigenization of Renewable Energy Technologies A Must for Pakistan

- IRENA The International Renewable Energy Agency
- Renewable Energy Policies for Pakistan and India A Comprehensive Study
- Renewable Energy Policies of China and Germany
- Renewable Energy Policies of UAE
- SZABIST's Proposal on Medium Term Policy on Renewable
- The Clean Development Mechanism A user's guide
- RURAL ELECTRIFICATION PROJECT gharo
- Presentation against Gutka consumption

SDRC - In Media

- The SDRC Dimensions
- SZABIST Adopts a Village to Interlink R&D and Society
- The energy crisis can be overcome if we switch off the lights when we leave the room
- Exchanging-Renewable-Energy-Ideas
- Wind-Energy-Projects
- Solving-Global-Warming
- Reducing-Carbon-Credits
- Imposition-of-Carbon-Tax
- Hunza-Lake-Disaster-We-All-Are-Responsible
- Energy-Cooperation-Among-Saarc-States
- Conversion-to-Solar-Power
- Alternative-Energy-Projects-With-China
- Alternative-Energy-Paradigm-Shift

Key Organizations

Energy

Alternative Energy Development Board (AEDB)

Pakistan Council for Renewable Energy Technology (PCRET)

Renewable & Alternative Energy Association of Pakistan (REAP)

The National Energy Conservation Centre - Enercon

Pakistan Engineering Council

Pakistan Metrological Department

USAID

Sustainable Development

PPAF

Sustainable Development Policy Institute (SDPI)

Orangi Pilot Project

Indus Earth

World Business Council for Sustainable Development

Environment

WWF

Pakistan Environmental Protection Agency

United Nations Environment Program

International Union for Conservation of Nature ICUN

Ministry of Environment

SDRC - What you can do

Volunteer your expertise· Energy Efficiency and Conservation [Apply]

- Renewable Energy Technology [Apply]
- Community service and mobilization [Apply]
- Rural Sustainable Development [Apply]
- Sustainable Business Development [Apply]
- Climate Change [Apply]

- Energy Policies [Apply]
- Clean Development Mechanism (CDM) [Apply]

Spread the word about SDRC Make our Mission Your mission

National and Global Activities

ENERGY

- Plugging High-Speed Rail Into Germany's Power Grid
- Al Gore calls for all US energy to be made renewable within 10 years
- India calls for equitable access to energy
- Gamesa of Spain strikes \$2 billion deal with Caparo Energy
- Why Japan's Shift Away from Nuclear Is Good for Business
- No Nukes, No Problem? Germany's Race for a Renewable Future

From the Editor: Renewables Growth Continues But at What Pace?ENVIRONMENT

- Earth's Next Generation
- Environmental Report on New Nuclear Plants to Start This Summer
- Puma puts a price on its environmental footprint
- Improve Energy Efficiency In Your Home, Save Money and Help the Environment
- Why Pakistan monsoons support evidence of global warming

10. Hamdard University

Home

Though the emergence of Hamdard University on the educational scene of Pakistan is in a fledgling stage yet the evolution it has witnessed thus far sets the trend that others are trying to replicate. The University does not want to rest on its laurels and therefore strives hard for further growth and maturity in order to be at par with renowned universities in the region.

The Main Campus of Hamdard University at Madinat alHikmah is spread over a picturesque landscape and is located in the vicinity of Sindh Balochistan border 8 km from the commercial center of the metropolis, on the main highway leading to Bund Murad Khan. The location of the campus is of great historical and geographical significance. It lies on the main highway, which connects it to the Hub Chowki on the highway to Quetta, and is situated along the Hub River on the borders of Sindh and Baluchistan. The site, according to the renowned historians and archaeologists, is the place where Muhammad Bin Qasim, who made

Sindh the gateway of Islam in the sub-continent, landed on his way to Daibal. The Campus is also closer to yet another celebrated site i.e. the shrine of Shah Noorani in Lasbela, Balochistan. Access to the university has been further strengthened for the people of the South West and North due to the completion of Northern By-pass which connects the Super Highway to Hamdard University on one hand and with Balochistan on the other.

· The shades of green interlaced with flowers and fruits of varying hues and colors, coupled with a rich and varied fauna, sustained by the proximity of the Hub River, lend a distinct flavor to an ideal site suited to academic and research pursuits, away from the hectic life of the megapolis. Nature, at Hamdard, manifests itself explicitly. Within its boundaries, purpose built architectural marvels of different faculties and departments merge well into the planned landscape setting spread of over 350 acres. It is in the context of this natural setting and historical site that Shaheed Hakim Mohammed Said envisioned and established Hamdard University – now one of the biggest seats of higher learning in the Private Sector.

Madinat al-Hikmah – Main Campus

The resources of the University are devoted to fulfill its mission, aimed at developing qualified, knowledgeable professionals and scholars, capable of creating new horizons on the glorious foundations of the oriental heritage of knowledge merging with the latest developments in the West. The University provides an academic and healthy environment, which is based on the philosophy that the ultimate reality can be arrived at through reason and intellectual pursuits.

Vision & Mission

VISION:

To preserve, and disseminate knowledge by achieving highest level of excellence at par with best institutions of the world.

MISSION:

- To provide a superior liberal education.
- To be catalyst to the intellectual growth of the students.
- To inculcate high ethical standards in students.
- To prepare students future members of the learned professions.
- To advance the frontiers of knowledge and contribute boldly to the international community of scholarship.
- To help alleviate suffering through, both, sympathy and action.
- To provide wide ranging educational opportunities on and beyond our campuses.

OBJECTIVES:

- To enhance the University's learning environment.
- To provide comprehensive high quality educational and research opportunities.
- To make Hamdard University's academic programs meet the changing needs of students and the challenges of the 21st century.
- To attract and retain excellent students, as well as staff.

Quality Enhancement Cell

The Quality Enhancement Cell (QEC) was established on September 13, 2013 at Hamdard University. It seeks to assure quality in all academic and administrative departments. Quality Assurance is a process-driven approach with specific steps to help define and attain goals. This process consists of design, development, production, and services. The goal is to ensure that excellence is inherent in every component of the process. Quality assurance also helps determine whether the steps used to provide the product or services are appropriate for the time and conditions. The cycle for quality assurance consists of four steps: Plan, Do, Check, and Act. Ever since the inception of QEC, all departments have set Standard Operating Procedures (SOPs) that are strictly followed and regularly audited. This helps maintain the standard and assures quality in the departmental performance. The QEC also ensures that the quality output at all departments is further enhanced by providing support and guidance using the internationally accepted QA tools.

1. To develop quality assurance processes and methods of evaluation to affirm that the quality of provision and the standard of awards are being maintained and to foster curriculum, subject and staff development, together with research and other scholarly activities.
2. To ensure that the university's quality assurance procedures are designed to fit in with the arrangement in place nationally for maintaining and improving the quality of higher education.
3. To develop procedures for:
 - o Approval of new program
 - o Annual monitoring and evaluation including program monitoring, faculty monitoring and student perceptions
 - o Departmental Review
 - o Student feedback
 - o Employer feedback
 - o Quality assurance of Master's, M. Phil and PhD degree programs
 - o Subject Review

- o Institutional Assessment
- o Program Specifications
- o Qualification Framework

11. University of Lahore

History of UOL

The quality of the teaching facility and research excellence has also earned its international recognition, placing the university amongst the top 6 first Pakistani Universities to be ranked in the 2012 QS Asia Ranking. The Higher Education Commission (HEC) recognizes the University of Lahore at its highest “W4” category of universities reserved for those institutions that fulfill all criterion of an International Quality University. The University of Lahore has special focus on Professional and Technical Education as it is an instrument of growth & development of any country’s economy. We are proud of the well equipped state of the art labs in the programs of Medicine & Dentistry, Public Health, Electrical Engineering, Civil Engineering, Mechanical Engineering, Pharm-D, Nursing and Law.

Strong linkages with the industry are of paramount importance for any higher education institution and The University of Lahore enjoys excellent links with international universities. We also have a wide range of knowledge sharing and human resource development programs with major multinationals organizations. The students at the university can expect excellent internship and skill development programs during the course of their studies.

The University of Lahore is a private sector university, established by Ibadat Education Trust and operates under the charter granted by the Government of the Punjab in 2002. The mission of the university is to impart education and training to the youth of the country in an academic environment through comprehensive and up to date teaching and research facilities.

The primary mission of the university is to inculcate such critical abilities, wisdom and values which are necessary for the making of a forward looking, coherent civil society. It also seeks to prepare a mindset imbued with Islamic ethos and positive social norms without prejudice to the authenticity of any other religion. The Trust has mandated this university to offer equal opportunity to students from all strata of society without any distinction of cast, color and creed.

The efforts of the university to promote demand led subjects for the purpose of preparing a productive manpower which could participate in the economic development of the country. In the same vain the university emphasizes on the delivery of curricula leavened with a tilt towards entrepreneurship. In essence, the mission of the university is to develop a positive social capital with common consciousness and common ego responsive to the looming global challenges in the rapidly changing political, economic and social paradigm FACTS.

Commercialization and Enterprise

We believe in teaching through practice and therefore the university has already invested heavily in SOCA. Additionally there is a gaming and animation house at the university delivering the needs of commercial consumers across the world. The University intends to further invest in a medical park and an IT innovation centre in order to commercialize technologies developed at the University and learning for students. The premises will also encompass three technology parks.

Teaching Excellence

UOL has developed an excellent teaching and learning environment and has achieved strong results in teaching assessments with the largest international student body in a private sector university in Pakistan.

Excellent Facilities

The University has invested extensively in new teaching facilities. With the new facilities for computer sciences and the up-coming engineering facilities at Lahore, the University will invest in providing the best teaching and learning environment in Pakistan. The Teaching Hospital at the campus also adds value to the Medical programs. The University has also invested in the School of Creative Arts (SOCA), where students are now engaged in the activities of the Media Group housed within the facilities of the School, therefore giving them the experience of newspaper, television and film production skills. SOCA is the only facility in Pakistan with two commercial studios, latest in cinematic and television equipment and a sound studio delivering commercial film sound production.

ORGANIZATION.

Ibadat Education Trust

Trust established in July 1999 Objective was to set up and run University and to maintain highest possible academic standards University was named as "THE UNIVERSITY OF LAHORE" PDF (Organizational Structure of UOL)

ACCREDITATION

Higher Education Commission of Pakistan (HEC)

HEC awarded W4 Category to UOL in 2012

Pakistan Medical and Dental Council (PM&DC)

Pakistan Engineering Council (PEC)

UOL recognized by Pakistan Engineering Council in 2003.

Pharmacy Council of Pakistan

Pakistan Nursing Council

UOL recognized by Pakistan Nursing Council in 2011.

Pakistan Bar Council

National Business Education Accreditation Council (NBEAC)

The Lahore Business School Accredited with National Business Education Accreditation Council and awarded with "XI" category for MBA and BBA programs with provisional accreditation of two years for graduates of Academic Sessions 2014-15 and 2015-16.

National Computing Education Accreditation Council (NCEAC)

National Computing Education Accreditation Council (NCEAC) has decided in its 20th meeting held on November 28, 2014, to award accreditation Category/ Rating X to the batch graduating in the academic year 2010-2014, 2011-2015 of your Program.

RESEARCH

Agri-Bio Technology Park

Aims and Objectives

Agri-bio technology facility was established at the University of Lahore for teaching and research in year 2013. During this period the facility has come of age and now comprises three green houses, cactus garden, tissue culture lab and chemical biology lab among others. Recently a full crop of off season tomatoes has been harvested. Furthermore, an economically important plant (Stevia) has been grown by tissue culture in large quantities. As a result, an agreement has been drawn for supplying 50,000 plants to local commercial growers. This plant is used as zero calorie sweeteners in a large number of preparations. Using the similar techniques of tissue culture, a number of food crops such as potato cultivar and flowering plants such as carnation and liliun.

Targets

- a. Optimization & establishment of Plant cell & tissue culture laboratory
- b. Establishment of "Chemical Biology" laboratory for Hi-tech research in medicinal plants for their health potential.
- a. Establishment of "Agri biotechnology Park" for different research and commercial projects
- b. Conservation of rare Cacti germplasm from Pakistan.

Targets Achieved

- a. Plant cell & tissue culture research laboratory established and is in use for different research and commercial projects from last year. Research projects mainly focusing on in vitro micropropagation of ornamental and medicinal plants. Special emphasis is on medicinal plants for their use in in vitro production of phytochemicals by cell culture, cell suspension culture and hairy root culture. This

laboratory is working on commercial production of in vitro medicinal plants like *Stevia rebaudiana* at large scale for commercial growers for the extraction of its sweetening agent to be used as natural

- a. Agri-biotech Park developed with different facilities like Greenhouses facilitated with drip irrigation system, Mist cooling system along with pad- fan cooling system. It is in use for the acclimatization & hardening process of tissue cultured plants along with the production of off- season vegetables/fruits like Tomatoes, cucumbers, chilies and strawberries throughout the year.
- b. Chemical Biology Laboratory fully optimized for different research projects of BS, MSc, MPhil and PhD students on health potential exploration of medicinal plants. Major focus is on extract preparation, development of active nutraceuticals and isolation of clinically potent compounds.
- c. Conservation of germplasm of rare cacti was achieved by establishing “Cactus garden” with exotic 200 rare cactus species for their use in GMOs production against drought resistance and after their multiplication this germplasm will be sold out to different research and landscape companies across Pakistan.
- d. Extension services: Agri-biotechnology Park now can offer following extension services to different agriculture sectors: Design of commercial tissue culture lab; construction services for controlled commercialized greenhouses; installation services for drip irrigation, mist irrigation and sprinkler systems for commercialized greenhouses and landscape models across Pakistan.

Centre for Research in Molecular Medicine (CRiMM)

During the last three decades the discipline of molecular and cellular biology has expanded phenomenally in scope and in depth. New knowledge in the field, mainly acquired through a multidisciplinary approach and experimental research, has made it possible not only to unravel living processes in health and disease from molecular to organismal level but also to introduce novel and more effective therapeutic and diagnostic tools in medical practice. In line with the policy of the University of Lahore to develop high quality expertise and manpower in emerging areas of biomedical sciences, a Centre for Research in Molecular Medicine was initiated in April 2009. The Centre represents a major investment and a bold initiative by the University in the field of life sciences and human health. A covered area of approximately 9,000 sq feet was allocated to the Centre at the University’s new campus adjacent to the University College of Medicine, to develop purpose-built teaching and research laboratories with state-of-the-art facilities. The Centre draws resources from other academic units of the University as well, such as the Institute of Molecular Biology and Biotechnology, Department of Pharmacy, the University College of Medicine and the Department of Information Technology. The Centre also has close collaboration in relevant areas with other reputable institutions within and outside the country.

Mission Statement

- a. Foster professional and intellectual development of scholars and faculty members at all levels. Place major emphasis on quality of the postgraduate programme leading to PhD.

- b. Undertake basic research in areas of national importance in the sectors of biomedical sciences and health.
- c. Actively interact and collaborate in research and higher training with other relevant institutions within and outside the country.
- d. Promote research interaction with public agencies and industry through outreach and scientific leadership.
- e. Organize symposia, seminars and special lectures in relevant disciplines at national and international levels. baidiana at large scale for

EDUCATION IS THE MOST POWERFUL WEAPON

The University of Lahore believes in delivering excellence in research and learning. Our ability to add to your academic and social skills will allow you to lead in your professional career. We aim to create high-quality graduates who are practically skilled to enter the world of work. The University of Lahore is recognised as the largest private sector university of Pakistan, and there is no better time to join the university when it is expanding internationally with campuses and networks being developed across the world.

We believe in commercialisation and entrepreneurship and have invested in the establishment of enterprises in order to ensure that our students gain hands-on experience that actually matters for graduating students. Our academic standards are high and we believe in encouraging independent thought driven by creativity and critical insight. You will experience our faculty that is one of the best in Pakistan and believe in research and expression in academic terms.

The experience at a university for a student is not only driven by the excellence in academics and research but the entire experience of being involved in the projects that the university takes on, as well as the experiences that a student gains outside the classroom. We have extensive activities ranging from sports to cultural events, media and society events etc that keep you engaged and entertained across the year.

The University of Lahore has now expanded internationally with its first move to Uganda providing support to setup a medical school. We believe that internationalisation is an important step towards ensuring that experiences are shared both academically and intellectually. We also have the largest international community in a private sector university with students from 15 different countries currently enrolled with us.

We provide extensive support to our students including preparing for career, mentoring, personal and financial support. Your success at The University of Lahore will be the measure of our success in delivering high quality education. I look forward to welcoming you to The University of Lahore.

Awais Raouf

Chairman, Board of Governors

We have faith in our student future

Our students are talented, hard-working and full of good ideas. We encourage and empower them to bring their ideas to life. Hands-on opportunities are what we're all about.

Empower

Engage

Graduation

Awarding

The World University Rankings on Times Higher Education

<https://www.timeshighereducation.com/world-university-rankings/university-lahore>

ABOUT UNIVERSITY OF LAHORE

The University of Lahore (UOL) is one of the largest universities in Pakistan, and was officially granted full degree status in 2002.

Today, UOL has seven campuses in total; three in Lahore, two in Islamabad and one in Sargodha, Pakpattan and Gujrat. It also continuously ranks high in the league tables among Pakistan universities.

On top of its seven campuses, it has 11 academic faculties, 35 academic departments, 3 technology parks, and 2 research centres.

Subjects offered to students include medicine, engineering, arts and social sciences, and all are recognised by the Higher Education Commission (HEC) in Pakistan. Where appropriate, courses are also accredited by the Pakistan Engineering Council (PEC), Pakistan Bar Council, Pakistan Medical and Dental Council, and the Pakistan Nursing Council, alongside many others.

The university boasts an impressive number of libraries which allow students to utilise books, journals and an extensive selection of digital media. University students also have access to an e-library, mini laboratories, as well as international online libraries and journals.

UOL also publishes scientific journals including the Pakistan Journal of Molecular Medicine; a quarterly journal which covers disciplines of biochemistry, biotechnology, environmental sciences, forensic science, medicine, and many more, and the Journal Of Media, Business & Social Sciences; a specified, peer-reviewed and professional journal that is published bi-annually in print and electronic forms.

In an effort to become sustainable UOL has invested in solar powered generation plants and bio-gas plants, to provide green energy. This has resulted in the university being well-regarded for its environmental credentials among other institutions in Pakistan.

The university makes an effort to offer multiple services to students once they have graduated, such as: library access, sports facilities, discount on different outlets and short courses to further their skills. Moreover, trips, annual dinners, professional networking, lectures and conferences occur annually.

1ST INTERNATIONAL YOUTH SUMMIT LAHORE 2017

IYSL was a one of a kind International Conference that was held In Pakistan. Summit brought together 120+ Delegates from around the World. The summit was organised by the Centre of Sustainability, Research and Practice (CSRП) with the University of Lahore as the host institution.

UOL Chairman, Mr. Awais Raоof said, “Through this summit we want to tell the world that we are honest and hard working nation.”

12. FAST-NUCES

Why FAST?

Founded as a Federally Chartered University in July 2000, the National University of Computer and Emerging Sciences is a premiere University of Pakistan, renowned for quality and impact of its students in the development of local software and other industries. The university has five modern campuses at Karachi, Lahore, Islamabad, Peshawar and Chiniot-Faisalabad. These campuses provide world class educational environment and recreational facilities to about over 11,000 students, around one quarter are female and over 500 skilled faculty members.

Research wings of the university are well recognized, nationally and internationally. They are embarked upon cutting edge research having direct impact on the social, economic and technological needs of Pakistan. Our vision is to become a globally recognized research university of Pakistan within the next decade.

History

- The National University of Computer & Emerging Sciences has the honor of being the first multi-campus private sector university set up under the Federal Charter granted by Ordinance No.XXIII of 2000, dated July 01, 2000.
- The University started with an impressive advantage in that, thanks to the selfless, ceaseless and imaginative efforts of the Foundation FAST, it inherited four first rate computer science institutes located at Karachi, Lahore, Islamabad and Peshawar, in spacious buildings and prestigious settings.
- These institutes, individually as well as collectively, have established leadership position due to the splendid vision of an enlightened management and tireless efforts of a highly qualified faculty. Over the years FAST has become the hallmark of excellence in academic arena, domestic market and international community.

Mission statement

In line with the thrust of our faith and glory of our heritage, we shall try our best to play an effective and meaningful role in creating a knowledge based society in Pakistan. This avenue would naturally and seamlessly lead to a civil society with knowledge driven economy.

In furtherance of these general objectives, we shall focus upon acquisition and propagation of cutting edge science and technologies. Recognizing the fact that Information Technology is having a profound impact upon almost every aspect of human activity and changing the shape of our future. We shall retain our focus, for the time being, on producing graduates in Computer Science, Engineering, Business Management and Basic Sciences as well as managers of the highest order who may act as vanguard of the IT Revolution in Pakistan.

We believe that enormous educational potential of computer science, if used wisely, widely and vigorously, can be a powerful vehicle of social equalization.

In line with its philosophy, satisfaction of the financial needs of the poor, and opening doors of opportunities of highly expensive education to the indigent and disempowered, are the greatest moral achievements of the Foundation.

In pursuit of this noble objectives, the University shall faithfully, vigorously and dedicatedly follow that policy to fulfill the requirements of equality of opportunity and social justice.

Realizing that the success of IT revolution requires concerted efforts of many, not a few, we shall establish a formal network of cooperative and collaborative relationship with centers of excellence within and outside Pakistan. The quality of human beings shall remain center of our focus. It shall be our constant endeavor to produce, not only excellent scientists and good technicians, but also well balanced human beings with strong sense of values.

ORIC

OverviewThe university true to the innovative spirit of its founders is alive to the cause of research and development. The breadth, depth, and assortment of research activities in the university have contributed to the national socio-economic stream.

In the same vein, to channelize research-led initiatives, ORIC has been established. It provides services linked to research and development, innovation, commercialization, collaboration, capacity building and facilitates researchers in the processing of the grants

Vision

The vision of ORIC is to promote research and innovation in the local context.

Mission

To take Pakistan forward by continuously improving quality of research, building partnerships with the industry, and being able to capitalize on outcomes that result from research and development activities

Functions

- To work as per directives of Higher Education Commission
- To encourage pragmatic research in the context of Pakistan's socio-economic needs
- To identify and inform the faculty members about research opportunities
- To facilitate joint research ventures and academic collaborations
- To promote publication of research work being conducted in the university
- To assist faculty in acquiring funds from international and national funding agencies
- To promote entrepreneurship, technology transfer and commercialization activities that support both local and national economies
- To commercialize research in collaboration with industry
- To periodically arrange awareness seminars, symposia and workshops for the benefit of faculty and students

Services

- Educate faculty about university research policy and process grant requests
- Develop, maintain and communicate pre and post-award administrative procedures for externally sponsored projects
- Support faculty regarding contracts, progress reports, and other sponsor grants actions
- Connect faculty and students with prospective industrial partners
- Assist students, faculty and alumnus in pursuit of technological or social innovations
- Mentor the promising start-ups during the initial period when they are most susceptible
- Assist on patent filing and licensing
- Continually keep web and social media presence to share the latest research, scholarship, and entrepreneurial opportunities

II- An example of identifying framing through content analysis

APPENDICES

Appendix 1: Excerpt from Framing and Structure Analysis

Learning and Teaching Strategy Initial THOUGHTS	2005-2009	2010-14 Being reviewed 2014/15
<p>Framing</p> <p>From we will be to we are.. arrival through engagement with markets... and sustainability of/through these relationships?</p> <p>Change of Leadership and government, change of staff but representative of cultural shifts - explanations keep springing to mind !! It does not feel 'objective' in the sense of removing myself.</p> <p>Earlier/ broader for me sounds more ESD although limited rhetorical statement.</p> <p>Further framing via reference to other strategies [named] clearer articulation in terms of intertextuality</p> <p>LT2 confident, market oriented shift supported by seven key aims [from Strategic Plan] 'learning for life' holds potential but preceding and subsequent market orientation strengthened in structure. Sustainable</p>	<p>'We will be the Community University College of the South West, providing high quality, holistic, enabling and supportive learning, teaching and research opportunities to meet the needs of individuals, groups, the region and beyond'</p>	<p>"As a high quality and vibrant higher education institution with a strong community focus, providing learning and opportunity for local, regional, national and international markets our mission is to provide 'learning for life'</p> <p>underpinned by seven key aims to:</p> <ul style="list-style-type: none"> • Provide high quality learning programmes and work towards the achievement of university title through accessible and vocationally orientated learning to meet the needs of individuals and communities • Achieve excellence in learning and teaching through the provision of high quality and intellectually challenging applied professional and vocational learning opportunities underpinned by advanced scholarship and applied research • Provide high quality student support enabling students to reach their full personal and professional potential and equipping them for employment and further study • Deliver sustainable futures through the promotion of good leadership and effective management and solutions, both in terms of cost and performance, in all activities • Be inclusive and accessible, supporting those able to benefit from higher education irrespective of background, beliefs and views

<p>structure. Sustainable futures noted although in a less than light green frame... shift to participation at the end</p>		<p>or background, beliefs and views and ensuring equality of opportunity</p> <ul style="list-style-type: none"> • Working creatively in partnership with people, employers and communities, contributing to their social, cultural and economic development through encouraging
--	--	--

Appendix 2: Comparing Aims of Strategic Plans 2005-2010 [abridged] and 2010-15

<p>'Aim for excellence in learning and teaching, gaining and maintaining the highest possible levels of external confidence in our quality of provision and sustaining an enabling and supportive student-centred learning community' and</p> <p>'Maintain and develop an attractive, high quality, campus estate and create a modern information infrastructure that can meet future expectation in learning and teaching'</p>	<ol style="list-style-type: none"> 1. To provide high quality modules and programmes which promote excellence and innovation in learning and teaching, scholarship and research, professional and inter-professional training. 2. To develop flexible, inclusive and accessible learning opportunities which meet the needs of a changing student body. 3. To prepare students for their future employment / study through the development of appropriate knowledge and understanding, intellectual skills, practical skills, and, key and transferable skills. 4. To provide high quality educational facilities to support and enhance the learning environment. 5. To integrate education for sustainable development into the curriculum.
---	--

<p>Key</p> <p>Shift in framing</p> <p>Same words</p> <p>Greater emphasis on sustainability in curriculum added 2014</p> <p>Perhaps similar intent</p> <p>New? – skills [not comparable?]</p>

Appendix 6: Sustainable Education Curriculum Keywords in LT1 and LT2 (Sterling, 2010, 2011, 2014; Tilbury, 2011)

Keywords Missing	LT1	LT2
Keywords Changed	Sustainable	Sustainable x 4
<u>Concepts</u> Interdependence Citizenship and stewardship Needs and rights Diversity Quality of Life, Equity and Justice Sustainable change Uncertainty and Precaution in Action	Needs x 3 Diverse From Strategy: <ul style="list-style-type: none"> • Learning for life • Prepare for future challenges • Provide opportunities to critically examine the nature and formation of judgements in areas of prejudice, bias, stereotyping • Recruit students [and staff] and to enable them to become highly qualified, creative, constructively critical people, able to contribute to the improvement of the human condition 	Needs x 5
<u>Pedagogies</u> Active Participative Experiential Holistic Interdisciplinary Values clarification Ethical dimensions Applied learning <u>Dimensions of Sustainability Literacy</u>	Experiential x 2 Critical x2 Values [not clarification] Creative Holistic Inclusive x 3 Ethical	Applied learning Ethical Creative Participation x 2 Inclusive x4 Practical x 2 Transformative

(Wayman, 2014, p. 213)

III A) Website screen shots

1- NUML



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- 10 OCTOBER** **Students Notice**
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- 10 OCTOBER** **Students Notice**
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- 05 OCTOBER** **Students Notice**
Microsoft Office Specialist (MOS) examination
will be held from 8th October 2018.

Latest Events

- 3 SEPTEMBER** **Two-Day National Conference - Pakistan's Nuclear and Missile Program for Peace and Stability in the Region**
[Call For Paper](#)
DEPARTMENT OF INTERNATIONAL RELATIONS-PEACE AND CONFLICT STUDIES is going to Organize Two days National Conference on Pakistan's Nuclear and Missile Program for Peace and Stability in the Region to be held on 14th and 15th November 2018 in NUML Islamabad
For Further Details Please [Click Here](#)
- 17 AUGUST** **International Conference On Economics And Business**
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Faculty of Management Sciences is going to Organize Two days International Conference on Economics And Business to be held on 8th

Where We Are?

- NUML Campuses in Pakistan...
 - Lahore
 - Faisalabad
 - Multan
 - Karachi
 - Peshawar
 - Quetta
 - Hyderabad
 - Affiliated Institutes
 - Grafton College, Chak Shahzad/Islamabad (Affiliated Provisionally)
 - Army Public College of Management & Sciences (APCOMS) (Affiliation Granted)
 - Garrison Degree College, Westridge-III, Rawalpindi Cantt (Affiliation Granted)
 - Guide Map

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 - 18 JULY** K-POP World Festival 2018
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 - 11 JULY** NUML Convocation - November 2018
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 - [Grafton College, Chak Shahzad, Islamabad \(Affiliated Provisionally\)](#)
 - [Army Public College of Management & Sciences \(APCOMS\) \(Affiliation Granted\)](#)
 - [Garrison Degree College, Westridge-III, Rawalpindi Cantt \(Affiliation Granted\)](#)
 - [Guide Map](#)

At the bottom of the page, there is a footer with the text: National University of Modern Languages © 2018 NUML All Rights Reserved. Social media icons for LinkedIn and Facebook are also present.

Additional content date: 27/5 /2018

Time : 5 pm

Date first visited: 15/1/2018

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the additional content added in the latest events section for the announcement of an upcoming national conference on assessment at the university in the coming October. This was added in the text on 27th May, 2018.

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- Degree Attestation System
- Degree Equivalence System | HEC Job Portal
- Digital Library | OPAC | Thesis Directory
- HEC Needs Based Scholarship Program
- Access to SECP Guidebooks Program

Latest News
For Further Details Please Click Here
For Downloading Form Please Click Here

Latest Events
NOVEMBER Emerging Macro economic Issues in Pakistan.
View Details

Where We Are?
NUML Campuses in Pakistan...
Lahore
Faisalabad | Multan | Karachi | Peshawar
Quetta | Hyderabad | Affiliated Institutes

National University of Modern Studies
https://numl.edu.pk

Online Admissions | E-Registration | Online QEC | Academic Calendar
Library | Employee Directory | Results | Downloads
NEWS Portal | ORIC | Alumni | Tenders
Date Sheets | NSB | LMS | Radio NUML
CPEC Center

CAMPUS LIFE 0:00

BLTea
Blended Learning for Teacher Educators in Asia and Europe

NUML Support Fund

NUML Zakaat Fund

Journals

Scholarships | Image Gallery | Thesis Defence

Schedule For GI Exam & Preparatory Courses

- Abstracts of M. Phil. / Ph.D. Theses
- B ICON Help Desk
- B ICON training registration form
- Psychological Counseling Services
- Idea Registration at B ICON
- NUML Student Alumni Membership
- Facilities Rental | NUML Translation Services
- Student Handbook | New Exam Rules
- PM Tuition Fee Reimbursement Scheme
- NUML international Conferences | Journals
- Off-Campus Access to Digital Library
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- Degree Attestation System
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NUML Campuses in Pakistan...
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Quetta | Hyderabad | Affiliated Institutes

National University of Modern Languages

Home About Us Admissions & Ads Academics Languages Faculties Offices Quality Assurance Research Contact Us

Hangeul Day

H.E. Mr. Sang Seung-Man, Minister Counsellor of Korea Islamabad addressing on the occasion of "Hangeul Day" at NUML

IMPORTANT ANNOUNCEMENT: CONVOCATION FOR THE SESSION JUNE 2017 & JAN 2018 WILL BE HELD ON 7TH NOV 2018 AT MAIN CAMPUS. [CLICK HERE FOR DETAILS](#)

Quick Links

Online Admissions	E-Registration	Online QEC	Academic Calendar
Library	Employee Directory	Results	Downloads

Glance at NUML

CAMPUS LIFE

BLTea
Blended Learning for Teacher Educators in Asia and Europe

NUML Support Fund

Online Resources

- [Schedule For GI Exam & Preparatory Courses](#)
- [Abstracts of M. Phil. / Ph.D. Theses](#)
- [B ICON Help Desk](#)
- [B ICON training registration form](#)
- [Psychological Counseling Services](#)
- [Idea Registration at B ICON](#)
- [NUML Student Alumni Membership](#)

National University of Modern Languages

Home About Us Admissions & Ads Academics Languages Faculties Offices Quality Assurance Research Contact Us

Chinese National Day

Teacher of Confucius Institute performing Chinese art on the occasion of "Chinese National Day" at NUML

IMPORTANT ANNOUNCEMENT: ADMISSION OPEN FOR GOETHE-INSTITUTE EXAMS AND A1 & A2 PREPARATORY COURSES IN GERMAN LANGUAGE **IMPORTANT ANNOUNCEMENT:** ALLOTMENT

Quick Links

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Library	Employee Directory	Results	Downloads

Glance at NUML

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Online Resources

- [Schedule For GI Exam & Preparatory Courses](#)
- [Abstracts of M. Phil. / Ph.D. Theses](#)
- [B ICON Help Desk](#)
- [B ICON training registration form](#)
- [Psychological Counseling Services](#)
- [Idea Registration at B ICON](#)
- [NUML Student Alumni Membership](#)

The screenshot shows the NUML website with the following elements:

- Browser:** Google Chrome, URL: <https://numl.edu.pk/AboutUs.aspx>
- Navigation:** Home, About Us, Admissions & Ads, Academics, Languages, Faculties, Offices, Quality Assurance, Research, ORIC, Alumni
- Header:** NUML National University of Modern Languages, Web Mail, IT& System, NEWS, CMS
- Section: About Us**

The mission of the National University of Modern Languages is to establish, sustain and enhance itself as a quality-centric higher education institution that provides excellent academic environment and opportunities for creating educated, productive, and responsible citizens of Pakistan and the global citizenry through intellectual, personal and professional growth.

The National University of Modern Languages was established as an institute in 1969 to help people communicate and understand each other in different oriental and occidental languages, to assimilate different cultures and to act as springboard for emerging disciplines. Initially, the institute provided language training facilities to personnel of armed forces and other government services of Pakistan. It was upgraded to University on May 29, 2000. In achieving this benchmark of a fully autonomous University, it has crossed many barriers and achieved a status of a seat of learning contributing new knowledge in local and global perspective and now teaches 27 oriental and occidental languages in addition to a number of emerging disciplines. Now, the University has a vibrant and well-grounded research program, offering MS/MPhil and PhD research degrees in various disciplines.

The University is open to all classes and creeds, persons of sex, religion, race, color or persons with physical disabilities without any discrimination.

Located in the South West of the stunning capital city of Pakistan Islamabad, in the backdrop of Margalla Hills, it is spread over an area of 25 acres. It can accommodate over 10,000 students for on campus education. There are more than 35 teaching departments. There is a unique composition of student body in the University which comprises of foreign students from Saudi Arabia, China, Korea, Iran, Middle East, Central Asia and other countries, a large number of Pakistani students, armed forces personnel and government officers of Pakistan and foreign countries. The University has more than 500 well qualified faculty members to manage the teaching and research activities in various disciplines. The University campus consists of five multi story academic blocks and an IT block. It has four hostels for students' accommodation. More development /construction plans are in the offering to provide maximum facilities. The library of the university has over 150,000 books with facilities of information communication technology. With a large fleet of , it comfortably meets the commuting requirements of both students and faculty members. The University has seven regional campuses in all four provinces of Pakistan. These campuses are fully functional and offering programs in various
- Section: Online Resources**
 - NUML international Conferences
 - Journals
 - Off-Campus Access to Digital Library
 - Access of Publications
 - IEEE-Resources Link
 - Degree Attestation System
 - Degree Equivalence System
 - HEC Job Portal
 - Digital Library
- Taskbar:** snagt (1).exe Cancelled, snagt.exe, snagt (2).exe Failed - Download error

This screenshot is similar to the one above but includes a grid of service icons at the bottom right:

- Library** (book icon)
- Scholarship** (person with star icon)
- E-Learning** (laptop icon)
- Employee Directory** (list icon)
- Download** (download arrow icon)
- Image Gallery** (camera icon)
- Ads** (document with checkmark icon)
- Tenders** (document icon)

Section: About Us

for creating educated, productive, and responsible citizens of Pakistan and the global citizenry through intellectual, personal and professional growth.

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About Us

The screenshot shows a web browser window with the URL <https://numl.edu.pk/VisionMission.aspx>. The navigation menu includes Home, About Us, Admissions & Ads, Academics, Languages, Faculties, Offices, Quality Assurance, Research, ORIC, and Alumni.

VISION & MISSION

Vision

Premier center of excellence in higher education, research and innovation, and expression for development of languages and other branches of learning, and creation of new knowledge

Mission

The mission of the National University of Modern Languages is to establish, sustain and enhance itself as a quality-centric higher education institution that provides excellent academic environment and opportunities for creating educated, productive, and responsible citizens of Pakistan and the global citizenry through intellectual, personal and professional growth.

To advance its pristine vision and mission of creating educated, productive and responsible citizens, the university shall focus its efforts on 3 goals: high student achievement and success, institutional and competitive excellence, and responsible public service. These interrelated goals will be facilitated by adopting the following means: distinguished intellectuals as faculty who challenge and mentor students to attain their fullest potential; talented, desirous and promising students who are devoted to the pursuit and advancement of knowledge; broad-based quality programs; state-of-the-art facilities and new trends in e-learning and information communication technologies; exemplary administration and qualified administrative staff dedicated to the highest professional standards and service; that thus share a common vision and an integral commitment to continuous improvement at all levels and to ensure competitive excellence and international compatibility.

Online Resources

- [NUML international Conferences](#)
- [Journals](#)
- [Off-Campus Access to Digital Library](#)
- [Access of Publications](#)
- [IEEE-Resources Link](#)
- [Degree Attestation System](#)
- [Degree Equivalence System](#)
- [HEC Job Portal](#)
- [Digital Library](#)

Additional resource tiles include: Library, Scholarshi, E-Learning, Employee Directory, Download, Camera, Calendar, and Document.

Taskbar: snagit (1).exe Canceled, snagit.exe, snagit (2).exe Failed - Download error, Show all downloads...

National Conference on Emerging Trends and Challenges in Educational Assessment (NCETCEA-2018)

October, 3rd - 4th 2018

Theme of the Conference: Educational Testing, Assessment and Evaluation: Trends and Challenges

CONCEPT NOTE

The concept of quality educational institutions and pedagogical approaches have modified over time of the changing conditions and educational environment. Moreover, development of knowledge base in pedagogical approaches has changed the teaching and learning environment. In the assessment, the focus has to change from the traditional practice. Therefore, assessment and evaluation system has to be modified in order to keep up with the developments. Quality and meaningful assessment system is required, including their proper utilization in teaching and learning. The conference will be a vibrant study of all the emerging and assessment systems in different global settings. Although developing countries have been doing a lot of work in comparison to the state of the world's major institutions, they still have been providing conventional assessment of learning. The quality teaching through learning assessment through knowledge through quality of student learning. To break this old way forward, to achieve this target, we will have to consider the emerging trends and challenges in educational assessment. This will be beneficial for teaching and pedagogical approaches. Hence, in view, it is a requisite to provide relevant and effective ideas to create a high quality assessment system that contemporary needs. Therefore, the national conference will be beneficial in understanding the emerging trends and challenges in assessment system. Hence, we present ourselves to be better the effort of all scholars in the field through this conference and to provide a platform for the exchange of views and experiences of assessment and evaluation professionals.

OBJECTIVES

- To understand the conventional and the emerging ways of educational assessment in Pakistan.
- To understand the assessment system in different countries and to compare it with Pakistan.
- To understand the assessment system in different countries and to compare it with Pakistan.
- To understand the assessment system in different countries and to compare it with Pakistan.

TOPIC AREAS

Areas of Educational Assessment

- Quality of Education and Assessment
- Diagnostic, Placement, Formative and Summative Assessment
- Assessment and Learning
- Assessment and Quality Improvement
- Assessment and Quality Improvement
- Assessment and Quality Improvement

Use of Wireless Technologies in Assessment

- Use of Wireless Technologies in Assessment
- Use of Wireless Technologies in Assessment
- Use of Wireless Technologies in Assessment
- Use of Wireless Technologies in Assessment
- Use of Wireless Technologies in Assessment

Assessment and Quality Improvement

- Assessment and Quality Improvement
- Assessment and Quality Improvement
- Assessment and Quality Improvement
- Assessment and Quality Improvement
- Assessment and Quality Improvement

ASSESSMENT SYSTEMS

- Assessment Systems
- Assessment Systems
- Assessment Systems
- Assessment Systems
- Assessment Systems

Important Dates

Registration opens on 01/07/2018
 Registration closes on 30/09/2018
 Registration fee: Rs. 1000/-
 Registration fee: Rs. 1000/-
 Registration fee: Rs. 1000/-

Organized by
 Department of Education
 Faculty of Education
 National University of Modern Languages
 Islamabad, Pakistan

Latest News

- 15 OCTOBER** **Students Notice**
SCHEDULE OF NUML CONVOCATION
(For the Session June 2017 to Jan 2018)
For details Please [Click Here](#)
- 10 OCTOBER** **Students Notice**
Allotment of Hostel Accommodation
For Male Students list Please [Click Here](#)
- 10 OCTOBER** **Students Notice**
Defence-Ph.D Thesis "Management Sciences"
For Further Details Please [Click Here](#)
- 05 OCTOBER** **Students Notice**
Microsoft Office Specialist (MOS) examination
will be held from 8th October 2018.

Latest Events

- 27 JULY** **National Conference on Emerging Trends and Challenges in Educational Assessment (NCETCEA-2018)**
October, 3rd - 4th 2018
For Further Details Please [Click Here](#)
- 18 JULY** **K-POP World Festival 2018**
21st July, 2018 At 2 PM. In NUML Auditorium
For Further Details Please [Click Here](#)
- 11 JULY** **NUML Convocation - November 2018**
[View Details](#)
For Downloading Registration Form [Click Here](#)
- 28 JUNE** **Two-Days International Conference - 17/18 Oct 2018**
[Call For Paper](#)

Where We Are?

NUML Campuses in Pakistan...

- ▲ Lahore
- ▲ Faisalabad
- ▲ Multan
- ▲ Karachi
- ▲ Peshawar
- ▲ Quetta
- ▲ Hyderabad
- ▲ Affiliated Institutes
- ▲ Grafton College, Chak Shahzad, Islamabad (Affiliated Provisionally)
- ▲ Army Public College of Management & Sciences (APCOMS) (Affiliation Granted)
- ▲ Garrison Degree College, Westridge-III, Rawalpindi Cantt. (Affiliation Granted)
- ▲ Guide Map

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Latest News

- 15 OCTOBER** **Students Notice**
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For details Please [Click Here](#)
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Defence-Ph.D Thesis "Management Sciences"
For Further Details Please [Click Here](#)
- 05 OCTOBER** **Students Notice**
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Latest Events

- 3-4 OCTOBER** **National Conference on Education and Sustainable Development(NCESD)**
[View Details](#)
- 15 SEPTEMBER** **Mehfile Mushaira** - [View Details](#)
- 7 AUGUST** **Pre-Qualification Notice!**
Pre-Qualification Notice - IT equipment. [View Details](#)
- 18-19 OCT** **1st International Conference on the Development of Arabic Prose in the second Half of the Twentieth Century (1951 - 2000)**
[View Details](#)

Where We Are?

- NUML Campuses in Pakistan...
 - Lahore
 - Faisalabad
 - Multan
 - Karachi
 - Peshawar
 - Quetta
 - Hyderabad
 - Affiliated Institutes
- Grafton College, Chak Shahzad, Islamabad (Affiliated Provisionally)
- Army Public College of Management & Sciences (APCOMS) (Affiliation Granted)
- Garrison Degree College, Westridge-III, Rawalpindi Cantt. (Affiliation Granted)
- [Guide Map](#)

National University of M.
[View larger map](#)

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National University of Modern Languages
H-9 Islamabad ,Pakistan
info@numl.edu.pk

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Developed by: ICT Department

2- IIUI

NEWS & EVENTS

- DEPARTMENT OF SOCIOLOGY HOLDS SEMINAR ON RIGHT TO INFORMATION
Department of Sociology of the International Islamic University, Islamabad (IIUI) Organized ...
Published on October 11th, 2018
- PAKISTAN LIBRARY ASSOCIATION EXPRESSES SOLIDARITY WITH IIL
The President of Pakistan Library Association,

ABOUT THE UNIVERSITY

The foundation of the Islamic University, Islamabad was laid on the first day of the fifteenth century Hijrah i.e. Muharram 1, 1401 (November 11, 1980). This landmark of the beginning of the new Century symbolizes the aspirations and hopes of the Muslim Ummah for an Islamic renaissance. The university was created to produce scholars and practitioners who are imbued with Islamic ideology, whose character and personality conforms to the teachings of Islam, and who are capable to cater to the economic, social, political, technological and intellectual needs of the Muslim Ummah ...

HIGHLIGHTS

ADMISSIONS
Fall 2018
Admission Results
PUBLISHED ON: JUNE 03, 2018

2-Day "CASS-IIUI Workshop In Corpus Linguistics 2018" **NEW**
PUBLISHED ON: OCTOBER 19, 2018

Faculty Of Shariah & Law Alumni Dinner 2018 **NEW**

IMPORTANT LINKS

- Admissions
- Eligibility Criteria
- International Students
- Programs Offered
- Fee Structure
- Seminars/Workshops
- Downloads
- Notifications
- Scholarships **NEW**
- Tenders

IMPORTANT LINKS

- IIUI Business Incubation Center
- Online Application for Turnitin
- Virtual Learning Environment
- Employees Welfare Fund
- Manuals
- Web Focal Persons
- News
- الأخبار
- خبریں
- Manuals

IMPORTANT LINKS

- Iqra College of Technology
- IIUI Schools
- University Advancement & Financial Aid
- Iqbal Int. Institute for Research & Dialogue
- International Institutes of Islamic Economics
- Institute of Professional Development
- Dawah Academy
- Shariah Academy
- English Language Centre
- Centre for Advanced Electronics & Photovoltaic Engineering

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Home | Email | Jobs | Tenders | Important Links | Location Map | Report an Issue

Slide show of images



Cutoff date: 15/10/2018

Time : 4:30 pm

Date first visited: 16/1/2018

Times visited: 30

International Islamic University, Islamabad

الجامعة الإسلامية العالمية

Search

VLE | News | الأخبار | خبیرین

Home About IUI Faculties Institutes, Academies & Centers Quality Assurance Libraries Research Journals ORIC Schools Hostels Contacts

Newly created auditorium

News & Events: IUI HOLDS CONFERENCE ON INNOVATION IN TEACHING AND

About the University: The foundation of the Islamic University, Islamabad was laid on the first day of the fifteenth century Hijrah i.e. Muharram 1, 1401 (November 11, 1980). This landmark of the beginning of the new Century symbolizes the aspirations and hopes of the Muslim Ummah for an Islamic renaissance. The university was created to produce scholars and practitioners who are imbued with Islamic ideology, whose character and personality conform to the teachings of Islam.

Highlights: ADMISSIONS Fall 2018. Admission Results. PUBLISHED ON: JUNE 03, 2018. Admission in Short Language Courses English, Urdu & Chinese. PUBLISHED ON: OCTOBER 15, 2018.

International Islamic University, Islamabad

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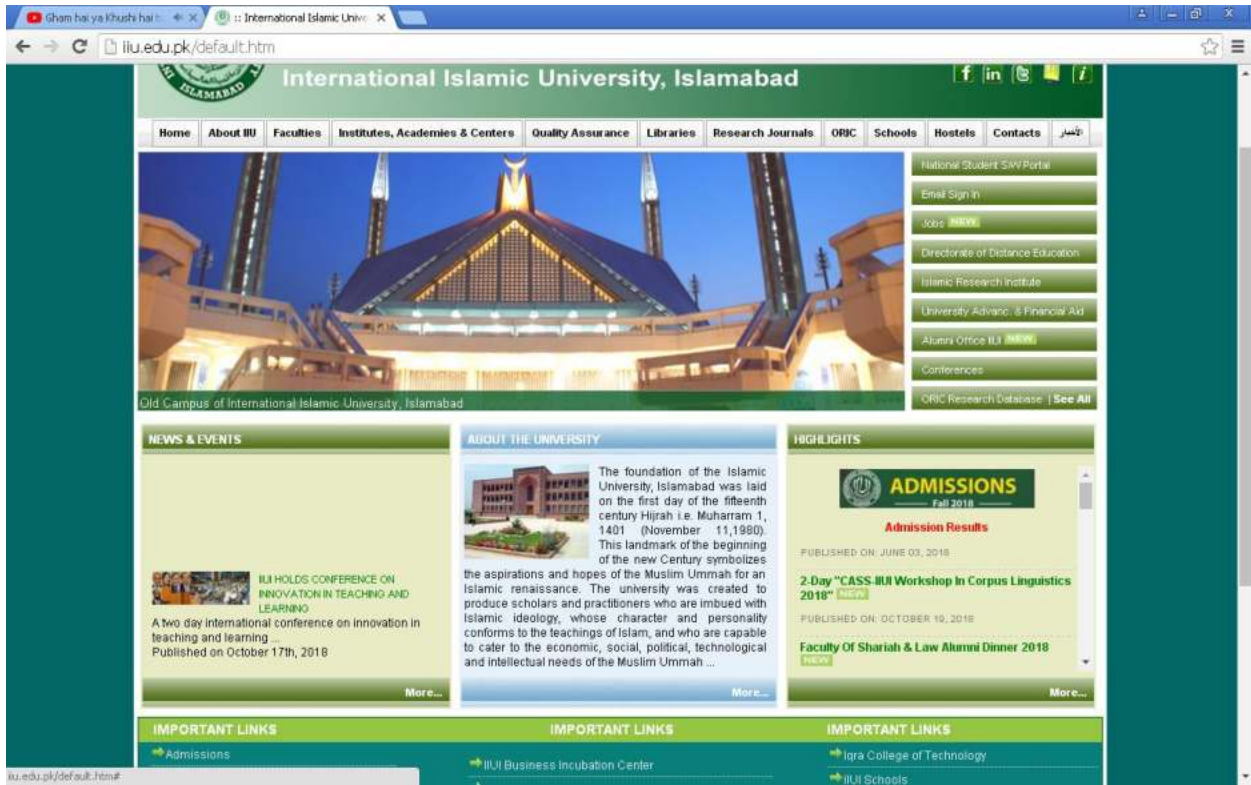
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Inside view of university campus

News & Events: IUI HOLDS CONFERENCE ON INNOVATION IN TEACHING AND

About the University: The foundation of the Islamic University, Islamabad was laid on the first day of the fifteenth century Hijrah i.e. Muharram 1, 1401 (November 11, 1980). This landmark of the beginning of the new Century symbolizes the aspirations and hopes of the Muslim Ummah for an Islamic renaissance. The university was created to produce scholars and practitioners who are imbued with Islamic ideology, whose character and personality conform to the teachings of Islam.

Highlights: ADMISSIONS Fall 2018. Admission Results. PUBLISHED ON: JUNE 03, 2018. Admission in Short Language Courses English, Urdu & Chinese. PUBLISHED ON: OCTOBER 15, 2018.



About

The screenshot shows the website for the International Islamic University, Islamabad. The header features the university's logo on the left, the name in Arabic 'الجامعة الإسلامية العالمية' and English 'International Islamic University, Islamabad' in the center, and a search bar on the right. Below the header is a navigation menu with links for Home, About IUI, Faculties, Institutes, Academies & Centers, Quality Assurance, Libraries, Research Journals, ORC, Schools, Hostels, and Contacts. The main content area is titled 'About International Islamic University, Islamabad' and contains a paragraph of text describing the university's founding in 1980 and its mission. To the right of the text is a photograph of a large, modern university building with a central archway. At the bottom of the page, there is a footer with copyright information and additional navigation links.

The mission

This screenshot displays the 'The Mission' page of the International Islamic University, Islamabad. The layout is consistent with the previous page, featuring the university's logo and name at the top. The navigation menu is also present. The main content area is titled 'The Mission' and contains a single paragraph stating: 'To optimize integration and Islamization of the contemporary knowledge and human thought in international perspective through established institutions and academic endeavors to achieve excellence in all branches of knowledge.' A 'Print This Page' link is located at the bottom right of the content area. The footer includes the copyright notice and navigation links.

The Vision

www.iiu.edu.pk/?page_id=38

[Home](#)
[About IUI](#)
[Faculties](#)
[Institutes, Academies & Centers](#)
[Quality Assurance](#)
[Libraries](#)
[Research Journals](#)
[ORIC](#)
[Schools](#)
[Hostels](#)
[Contacts](#)
[تواصل](#)

The Vision

To provide every opportunity for an all round and harmonious development of individuals and society and reconstruction of human thought in all its forms on the foundations of Islam in order to encourage and promote education, training the research in Islamic learning, social, natural, applied and communication sciences and other branches of learning to ensure the Muslim Ummah's ideological, moral, intellectual, social, economic and technological development in accordance with the values, ideals, principles and norms of Islam.

Action Plan

Segment-I

1. To consolidate the existing faculties, institutes, academies and centres of the University, namely, Faculty of Shariah and Law, Usuluddin, Arabic, Languages and Literatures, Social Sciences, Management Sciences, Applied Sciences, Academy, Shariah Academy, Centre for Basic Studies and the Iqra College of Technology.
2. To establish new faculties, departments centres, units and cells and strengthen the existing faculties, institutes, academies and centres the order the ensure diversification and deeper specialization in the relevant areas and to promote higher learning, research and training in various branches and specializations falling under the purview of the concerned faculties, institutes, academies or centres.
3. To strengthen pre-doctoral and post-doctoral research programs in the existing faculties and institutes.
4. To develop and consolidate the Female's Campus as a premier seat of higher learning for female.
5. To develop a faculty committed to the cause, vision and mission of the University on the one hand and responsive to the requirements, professional competence and an enhanced Islamic understanding on the other.
6. To develop a rich multi-lingual resource centre in the areas of interest to the University.
7. To develop centres of expertise, research and consultancy in the fields of Islamic Law, Islamic Economics and Banking, Islamic Finance, Information Technology and Engineering and Technology.
8. To develop a nerve center of higher Islamic education in Pakistan through affiliation of leading institutions of Islamic education, establishment of regional campuses and centres, and coordination with eminent personalities working in the fields of Islamic education, research, instruction and training.
9. To produce scholarly works and other reading material in the fields of interest to the university, especially Law, Jurisprudence, Islamic Thought, Economics, Banking, Political Science, International Relations and Business Administration.

Segment-II

9. To produce scholarly works and other reading material in the fields of interest to the university, especially Law, Jurisprudence, Islamic Thought, Economics, Banking, Political Science, International Relations and Business Administration.

Segment-II

1. To establish Faculties of Medicine and Health Sciences and a Faculty of Engineering and Technology with expertise drawn, as far as possible, both from Pakistan and overseas.
2. To establish a faculty of Communication and Media with view to produce experts in the fields of media, communication and journalism.
3. To establish branches and affiliated institutes of the International Islamic University outside Pakistan especially at places where higher Islamic learning is not available.

Print This Page

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News and Events

News and Events | Internal: X
www.iui.edu.pk/?cat=3

IUI HOLDS CONFERENCE ON INNOVATION IN TEACHING AND LEARNING

Published on: October 17th, 2018



A two day international conference on innovation in teaching and learning kicked-off here at Faisal Masjid campus of the International Islamic University (IUI) on Wednesday.

Conference is being organized by the department of education of the university in which educational experts and educationists will discuss innovation in curriculum and instruction, innovation in higher education, innovation in educational research and educational interventions in more than 170 research papers.

Progressive attribute of education must be stressed and focused to meet the requirements of hour, said famous educationist Dr. Mehmood ul Hassan Butt speaking as a chief guest at the opening ceremony of the conference.



He maintained that innovation is all about learning new things with different approaches and it leads towards exquisite and significant impact and results. "Islamic scholars and educationists have a vital role in advancing innovation in the field of education" he told. He also discussed Islamic history and renaissance and different innovative approaches in education.

Dr. Muhammad Munir, Acting President IUI urged the students to explore the knowledge on specific aspects through experts of the conference. He also highlighted importance of research and adoption of innovation.

Dr. Samina Malik, Dean Faculty of Social Sciences elaborated objectives of the conference and said that it was aimed at addressing opportunities, challenges and directions afforded by the technological innovation in the field of education. "We will have to let our youth think "out of the box" because it is a salient attribute of innovation and progress. She furthered that use of technology does not make things innovative, while it was necessary that innovative approaches be adopted.



Dr. Nabi Bux Jummani, the patron of the conference and director distance learning paid vote of thanks to all the participants.

Earlier, Heads of education departments at both male and female campuses elaborated objectives of the conference and apprised about the services and achievements of the departments.

The conference will conclude today (Thursday), while today experts will discuss various topics such as innovation educational pedagogies, internationalization of education and technology innovations and its impact on education.

The opening ceremony was also attended by Vice President female campus Dr. Farkhanda Zia, senior faculty member of the department and a large numbers of the students.

MOS CERTIFICATION AND TRAINING SESSION AT FEMALE CAMPUS

News and Events | Internal: X
www.iui.edu.pk/?paged=4&cat=3



On the sidelines of this visit, draft of a memorandum of understanding was also discussed between International Islamic University in Islamabad and the University of Gujrat which aims at building bridges of cooperation between the two sides in their fields of interest and enhancing scientific cooperation and exchange of knowledge. Both sides agreed for joint academic and research programs and projects.

IUI MARKS WORLD TEACHERS' DAY

Published on: October 6th, 2018



International Islamic University Islamabad (IUI) marked the World Teachers' Day and conducted a walk at its new campus on Friday.

IUI President, Prof. Dr. Ahmed Yousif Al-Draiweesh led the walk which was organized by education department in the supervision dean Faculty of Social Sciences Dr. Samina Malik.

A large number participation of Chairpersons, HoDs, faculty members and students was observed to mark the day. The participants of the walk were carrying banners and placards which highlighting the status of teacher as a nation-builder.

"The day highlights the fact that teachers must be empowered as a critical step towards quality education and sustainable societies" said Dr. Ahmed Yousif Al-Draiweesh.

IUI President, in his address congratulated the students and faculty members for holding successful event to celebrate the day. He urged that teachers' services should be highly acknowledged by all the corners of the society and students must cooperate with teachers to build a strong and prosperous nation. He was of the view that teachers play vital role in imparting quality education and they are the source of guarantee to a bright future.

Picture of IUI President and faculty members of International Islamic University Islamabad (IUI) in a walk at campus on the occasion of world teachers' day.

PROF. DR. AHMED YOUSIF AL DRAIWEESH, PRESIDENT, IUI WELCOMES NEW STUDENTS

CIPA.PNG Core.PNG Show all downloads...

News and Events | Internal: X
 www.iiu.edu.pk/?paged=5&cat=3
 Published on: August 13th, 2018

1335 SAPLINGS PLANTED AT IIUI

International Islamic University, Islamabad (IIUI) and Centaurus mall have joined hand to promote a tree plantation drive "efforts for Green Pakistan" which kicked off on Monday at new campus (H-10) of the IIUI, where as many as 1335 saplings were planted.

These saplings included olive, pine, sukh chain (Pongamiapinnata) and Alistonia which were planted by GM Centaurus, IIUI Rector, President, faculty members, administrations officers, centaurus team crew and university students.

A ceremony to launch the drive was attended by GeneralManagerCentaurusMr. IfranulHaque, IIUI Rector Dr. MasoomYasinzai, President Dr. Ahmed Yousif Al-Draiweeshand other high ups of the both sides.

IfranulHaque said that plants are the guarantee of the safe environment in future. He hailed IIUI for its service to society and added that due to importance of the institution the centaurus administration chose to start this campaign with IIUI.

"The Centaurus Mall Islamabad has initiated a drive of Green Pakistan under a phased programme where a number of trees are being planted at different locations" He told.

He also conveyed the message of the owner of the Centaurus mall and President Sardar Group of Companies Sardar Tanveer Ilyas Khan that he hasre-iterated the dire need of plantation in Pakistan and said that realization of this factor by every segment of the society is very imperative so that every citizen can play his or her respective role in this drive.

IIUI Rector Dr. Masoom Yasinzai spoke about his previous meeting with the Minister SaradarTanveer and told that the initiative of plantabon was warmly agreed by both sides. He stressed upon educational institutions to remain not only bound to books but they must come forward to address and solve the issues of society. "Educational institutions must act as solution providers" IIUI Rector maintained.

President International Islamic University Islamabad, Prof. Dr. Ahmed Yousif Ahmed Al Draiwesh thanked the Centaurus Management and SardarTanveer Ilyas Khan on this noble cause. He vowed that university will take care of these plants and they will be a living symbol of bilateral constructive cooperation between both sides in future.






ORIC



Office of Research - ORIC | X
 www.iu.edu.pk/?page_id=2762

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- Advanced Electronics Laboratories
- Applied Biotechnology and Genetic Engineering Lab
- Genomics Research Lab (GRL)



OFFICE OF RESEARCH, INNOVATION & COMMERCIALIZATION (ORIC)

Creating new Knowledge

NEW! PSF Proforma for identification of key i

Welcome!

Office of Research, Innovation & Commercialization (ORIC) is operational at the International Islamic University, Islamabad (New campus). ORIC was established at the University in 2010 with the approval of B.O.G in its 63rd meeting a propos guidelines of the Higher Education Commission (HEC), Islamabad for all Universities/DAIs of Pakistan to establish "Offices of Research, Innovation & Commercialization (ORIC)".

Office of Research, Innovation & Commercialization (ORIC) provides end to end services for all matters pertaining to research & development, innovation, inventions, commercialization, patents, collaborations, arranging seminars/ colloquial symposium/ conferences/ workshops, etc and/or research publication honorarium. By and large Office of Research, Innovation & Commercialization (ORIC) is the focal point for all research related activities of the University. ORIC facilitates the University researchers (faculty members and scholars) to promote their research work both nationally and internationally. To this effect, this office has facilitated number of researchers to present their research papers in international conferences, hold seminars/conferences/workshops etc. as well as with the submission and approval of different research & development projects both nationally and internationally.

Team members

Success Stories

ORIC Contact Details

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NEW!

Scientific & Commercial Facilities

- Advanced Electronics Laboratories
- Applied Biotechnology and Genetic Engineering Lab
- Genomics Research Lab (GRL)

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If you want to present your research work in international conference(s), organize a seminar/ workshop/ conference or conduct a research project. Please visit Office of Research, Innovation & Commercialization (ORIC) for further assistance and guidance on available funding opportunities. For additional information please browse relevant section of the web-page.

Scholarships

Common Wealth Scholarship 2014
 FULLBRIGHT MASTERS AND PHD PROGRAM GRANTS

Objectives & Functions | International Islamic University | Islamabad

www.iui.edu.pk/?page_id=8477



الجامعة الإسلامية العالمية
International Islamic University, Islamabad

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Scientific & Commercial Facilities

OBJECTIVES & FUNCTIONS

The Office of Research, Innovation & Commercialization (ORIC) aims to:

- Develop, expand, enhance and manage the International Islamic University's research programs
- Link research activities directly to the educational, social and economic priorities of IUI and its broader community
- Ensure that the quality of research reflects the highest international standards and advances the stature of the International Islamic University among the world's best research institutions

The Office of Research, Innovation & Commercialization (ORIC) seeks to enhance the research culture at IUI and realize above-mentioned objectives by:

- Supporting the university's strategic research directions and policies
- Increasing and diversifying external research funding
- Improving recruitment and retention of top faculty members
- Improving integration of research and education at all levels of the university
- Improving translation of research into the public benefit
- Strengthening university – industry relationships
- Promoting entrepreneurship, technology transfer and commercialization activities that energize and support the local and national economy
- Promoting and enhancing cross-cutting and multi-disciplinary research initiatives

Future Plans | International Islamic University | Islamabad

www.iui.edu.pk/?page_id=8484



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Scientific & Commercial Facilities

Future Plans

- To improve Human Resource Development Program and explore funding for establishment of Research Labs at IUI in its various Departments.
- To strengthen international linkages particularly with American universities based on joint research proposals for international funding.
- To hold regular scientific seminars, colloquia, symposium etc at IUI to promote the culture of interaction and sharing of scientific knowledge with researchers around the world.
- To prepare the University Strategic Business Plan for the next 5 years.
- To prepare the research Policy for the University.
- To explore possibilities of projects based on public-private partnership.

3- IQRA university , Main page



Cutoff date: 10/10/2018

Time : 6 pm

Date first visited: 10/1/2018

Times visited: 20

IQRA UNIVERSITY IU **HBX HARVARD BUSINESS SCHOOL**

Celebrating a benchmark in our academic history

Iqra University Collaborates with HBX, Harvard Business School's Digital Learning Initiative

IQRA UNIVERSITY
where your future begins!

For a developing country, like Pakistan, a demand oriented workforce afire with professional excellence can bring about a knowledge revolution. Welcome to revolution in education – IQRA University. The IQRA University is chartered by the Government of Sindh vide Sindh Government Ordinance No.VI of 2000 having Campuses across Pakistan and is having collaboration with foreign universities. We offer a diverse range of graduate and post-graduate courses as well as PhD

hbx.hbs.edu/courses/courses/collaborating-colleges nces, Computer Sciences and Engineering, Education and

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RANKED #1
PRIVATE SECTOR UNIVERSITIES BY QIC

IQRA UNIVERSITY IU

HEC RANKING

RANK	NAME OF UNIVERSITY / INSTITUTE	OVERALL OBTAINED SCORE %
1	IQRA UNIVERSITY, KARACHI	100.00
2	LAHORE SCHOOL OF ECONOMICS, LAHORE	98.10
3	INSTITUTE OF BUSINESS ADMINISTRATION (IBA) KARACHI	96.00
4	INSTITUTE OF MANAGEMENT SCIENCE, PESHAWAR (IMS)	80.32
5	SUKKUR INSTITUTE OF BUSINESS ADMINISTRATION, SUKKUR	75.82

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hec.gov.pk/english/universities/Documents/Ranking_Doc (2015).pdf nces, Computer Sciences and Engineering, Education and

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IQRA University, Islamabad Campus

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Click Here

HEC Ranking 2014 (Announced 2015)
Iqra University is Ranked #1
i.e The Best Private Sector University in the Country among General Universities. i.e Universities offering multiple disciplines and at No.6 among all Private & Public Sector Universities in the Country (among a total of 67 Multiple Disciplinary Universities).
http://www.hec.gov.pk/InsideHEC/Divisions/QALI/Others/RankingofUniversities/Documents/Final_Doc.pdf

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ALUMNI MEETUP 2018

Student Area IU

Phd selected candidate FALL-18 Happy to Help! +

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Islamabad Campus **Where your future begins!**

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Ranking of Pakistan

HEC RANKING OF UNIVERSITIES - 2016

IQRA UNIVERSITY IU IS RANKED NUMBER 1

“THE BEST BUSINESS SCHOOL IN PAKISTAN”

By Higher Education Commission of Pakistan in it's Latest Ranking of 2016

http://hec.gov.pk/InsideHEC/Divisions/QALI/Others/RankingofUniversities/Documents/Ranking_Doc.pdf

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Student Area

- Entry Test Result SPRING-19 Semester
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The University is the brainchild of Mr. Hunaid Lakhani, Chancellor of Iqra University, whose aim was to form an institution of higher learning that could provide quality education to students in Pakistan.

Iqra University has approximately five thousand students in its portal studying in disciplines such as Computer Science, Information Technology, Development Studies, International Relations, Fashion Design, Engineering, and Business Administration.

With the commitment to provide quality education to the youth of Pakistan, Iqra University established a distinctive new campus in the capital city, Islamabad. This purpose-built campus is spread over a lush green area of five acres in the heart of the educational sector, H-9, home to some of the other most prestigious educational institutions in Islamabad.

Graduate, undergraduate and continuing education programs are offered in all disciplines including Electrical Engineering, Computer Science, Business Administration, International Relations, Development Studies, Fashion Design and Textile Design. The programs in these disciplines are conducted under the supervision of a highly qualified, professional and motivated Faculty. The university curricula are not only competitive but also in line with academic practices globally.

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Students' time at Iqra University Islamabad Campus is one of the most exciting, self-fulfilling, and challenging periods in their lives. Individual attention is given to students to develop and enhance their technical and analytical competencies. Students are also encouraged to participate in various extracurricular and academic activities to facilitate their personal and professional development.

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- Alumni Card Fee Voucher
- Alumni Meet Up 2017

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Latest Events



- Alumni Meet Up 2017

Training

- ICEPT
- Short Courses (Registration Open)
- EXECUTIVE TRAINING (ET)
- ET Fee Voucher

Research & Collaborations

- R & D
- Collaborations

Announcement Scroller

- Fifth South Asian Economic Summit
- Certificate Distribution Ceremony of the Active Citizens Program
- IQRA University Ranked #1
- Ph.D Defense
- Coming Soon
- Fifth South Asian Economic

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Mission Statement | Iqra

https://iqra.edu.pk/isl/mission-and-objectives/

Mission Statement

To be a world-class institution of higher education and research, promoting technical skills, critical thinking and public duty, to help develop a prosperous and progressive society.

Core Values

- Respect
- Merit
- Courtesy
- Excellence
- Equality
- Honesty
- Innovation
- Dedication

Vision Statement (Objectives)

- Develop Leadership
- Promote Entrepreneurship
- Promote Advanced Learning Methodology
- Promote Training
- Promote Lifelong Learning
- Uphold Islamic Values
- Promote Industry and University interaction

Student Area

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Introduction | Iqra Univer

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Introduction

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Student Area

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The screenshot shows a web browser window with the URL <https://iqra.edu.pk/isl/aims-objectives/>. The page features a header with the Iqra University logo and the tagline "Where your future begins!". Below the header is a navigation menu with links for Home, About IU, Resources, Programs, Faculty, Admissions, Blog, Iqra Online, and Alumni. The main content area is titled "Aims & Objectives" and contains the following text:

The main objective of the university is to provide high quality, comprehensive educational and training opportunities that are compatible to changing needs of the students. Through its academic programs, the university prepares its students for the challenges of the 21st century and empowers them to meet the ask of a rapidly changing world. The university is dedicated to providing faculty, staff, and students with the environment and infrastructure that help them develop potential for scholarship, creative work, professional realization, and service. In fulfilling the mission of the university, the Islamabad Campus cultivates in its students:

- A strong foundation of knowledge and skills,
- The ability to think critically and tolerate differences of opinion,
- An understanding and respect for ethnic and cultural diversity,
- Human decision making which is formed and ethical,
- Adaptability to the workplace,
- A sense of being responsible citizens of the society,
- The values of hardwork and dedication.

On the right side of the page, there is a "Student Area" sidebar with a list of links: Phd selected candidate FALL-18, Time Table FALL-18 Semester, Club Registration FALL-18, Registration FALL-18 Semester, Academic Calendar FALL-18, Final Examination Result SUMMER-18, Entry Test Result FALL-2018 Semester, Faculty Evaluation SUMMER-18, DateSheet Final Exam SUMMER-18, CoE-CPEC, Prospectus 2018, Millennium Fellowship Program, Admission FALL-18 Semester, and Ph.D. Scholars' Proforma. At the bottom right, there is a "Happy to Help!" chat button with the IU logo.

AIMS & OBJECTIVES | Iqra University

https://iqra.edu.pk/isl/aims-objecives/

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Goals

Education and Research

- Encourage a spirit of inquiry and criticism through research and publication.
- Explore new horizons of scientific knowledge needed for developing national resources.
- Promote awareness and realization of the importance of education and research in achieving a competitive status among other nations.
- Relate fundamental concepts to practical applications, and provide students with the necessary skills to function as responsible professionals.
- Use a variety of modern mechanisms to adopt appropriate new technologies and methodologies.
- Analyze organizations' information requirements and match them with available technologies and methods.
- Develop strong interpersonal and communication skills.
- Provide various exciting and rewarding career opportunities, which are greatly needed for our rapidly developing country.

Entry Test Result FALL-2018 Semester

Faculty Evaluation SUMMER-18

DateSheet Final Exam SUMMER-18

CoE-CPEC

Prospectus 2018

Millennium Fellowship Program

Admission FALL-18 Semester

Ph.D. Scholars' Proforma

IU Policies

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Why Choose IU? | Iqra University

https://iqra.edu.pk/isl/why-choose-iqra/

Islamabad Campus where your future begins!

Home About IU Resources Programs Faculty Admissions Blog Iqra Online Alumni

kistan

Why Choose IU?

- IU has been ranked Number-1 by Higher Education Commission in Business Education Category (2015).
- IU has been chartered by the Government of Sindh via ordinance VI of 2000 and recognized by the Higher Education Commission.
- IU has been rated as the best private sector university in Sindh as per CEIC evaluation.
- IU has been rated by CEIC as a Six Star Institution.
- IU has been placed in "W4" category, the top category, by HEC.

Student Area

Phd selected candidate FALL-18

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Latest Events

A seminar on FATA Region

Ph.D. Defense

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IQRA University, Main home page

IQRA UNIVERSITY | IU | HARVARD BUSINESS SCHOOL | HBX

Celebrating a benchmark in our academic history

Iqra University Collaborates with HBX, Harvard Business School's Digital Learning Initiative

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where your future begins!

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STUDENT'S AREA
Online - Chat With Us

HEC RANKING OF UNIVERSITIES - 2016

IQRA UNIVERSITY | IU IS RANKED NUMBER 1

"THE BEST BUSINESS SCHOOL IN PAKISTAN"
By Higher Education Commission of Pakistan
in it's Latest Ranking of 2016

http://hec.gov.pk/InsideHEC/Divisions/QALI/Other/RankingofUniversities/Documents/Ranking_Doc.pdf

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IQRA UNIVERSITY


where your future begins!

For a developing country, like Pakistan, a demand oriented workforce afire with professional excellence can bring about a knowledge revolution. Welcome to revolution in education – IQRA University. The IQRA University is chartered by the Government of Sindh vide Sindh Government Ordinance No.VI of 2000 having Campuses across Pakistan and is having collaboration with foreign universities. We offer a diverse range of graduate and post-graduate courses as well as PhD programmes of International level in Management Sciences, Computer Sciences and Engineering, Education and Learning Sciences, Media Sciences, and Fashion Designing. At all Campuses, we incessantly strive to create congenial learning environment with lots of facilities. Technologically equipped classrooms, with high-tech computer laboratories with internet facilities and rich Information Resource Centre are established at all the Campuses for comprehensive academic training. Special services, such as, placement, transport and housing, etc., are also provided to the students.


Our Campuses




Main



Gulshan



North



Islamabad

ICEEST 2018

OFFICE OF THE REGISTRAR

Degree Verification
Transcript Verification

STUDENT'S AREA

17th Convocation Registration
Student Engagement Cell
IU Gazette 2017
Business Plan Competition
International Careers
IULMS
Virtual Learning Environment
IU Policies
Social Media Policy
Academic Calendar
Transcript


Questions? [Click here to chat with us](#)

Online - Chat With Us


Iqra University - Where you... X
https://iqra.edu.pk

HOME ABOUT IU LIFE AT IQRA PROGRAMS FACULTY ADMISSIONS BLOG CONTACT US


Our Campuses




Main Campus




Gulshan Campus



North Campus



Islamabad Campus



AIFD

- International Careers
- IULMS
- Virtual Learning Environment
- IU Policies
- Social Media Policy
- Academic Calendar
- Transcript
- Online Application
- Plagiarism Test (Turnitin)
- Semester Schedule
- Class Attendance
- Download Faculty Lectures
- Iqra Staff Email
- Iqra Student Email

RESEARCH & QUALITY ENHANCEMENT CELL


Questions? [Click here to chat with us](#)

Online - Chat With Us

Browser: Founder Chancellor's Message | URL: https://iqra.edu.pk/founder-chancellors-message/

Navigation: HOME | ABOUT IU | LIFE AT IQRA | PROGRAMS | FACULTY | ADMISSIONS | BLOG | CONTACT US

Founder Chancellor's Message



"Iqra," the first revealed word of the Quran, translates, literally, to "read." It is a divine injunction that means that we must continuously endeavor to seek knowledge. In keeping with this mission, I started Iqra University, in order to bring an international-level education to the youth of Pakistan. Through the use of modern teaching methodologies, highly qualified faculty, and state-of-the-art campuses, we endeavor to be a world-class institution of higher education and research, promoting technical skills, critical thinking and public duty, to help develop a prosperous and progressive society.

Our success in achieving this mission, to offer an unparalleled education to the youth of Pakistan, is evidenced by the many accolades Iqra University has received. In the past year alone, we have been ranked Number One Business School in Pakistan by HEC, Number One University in Sindh by the CIEC and the University with the Highest Research Output in Management Sciences by the HEC. We have the largest PhD faculty pool of any private university in the nation and our students' many achievements have received recognition both at home and abroad.

Education is the only solution to the problems faced by our nation. At Iqra University, we understand that our students of today are the leaders of tomorrow. They are the future of our country. They will run our government, manage our businesses, and serve our country. Thus, we here at Iqra University provide an environment where we foster well-rounded, well-groomed individuals who are competent to take on challenges later in life and meet them with success.

Founder Chancellor

OFFICE OF THE REGISTRAR

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IU Policies

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Academic Calendar

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Online Annitration

[Online - Chat With Us](#)

Browser: Mission Statement - Iqra U | URL: https://iqra.edu.pk/mission-statement/



IQRA UNIVERSITY IU

Where your future begins!

Navigation: HOME | ABOUT IU | LIFE AT IQRA | PROGRAMS | FACULTY | ADMISSIONS | BLOG | CONTACT US

[Click Here for Latest Business School's Research Ranking of Pakistan](#)

Mission Statement

To be a world-class institution of higher education and research, promoting technical skills, critical thinking and public duty, to help develop a prosperous and progressive society.

Core Values

- ✓ Respect
- ✓ Ment
- ✓ Courtesy
- ✓ Excellence
- ✓ Equality
- ✓ Honesty
- ✓ Innovation
- ✓ Dedication

OFFICE OF THE REGISTRAR

Degree Verification

Transcript Verification

STUDENT'S AREA

17th Convocation Registration

Student Engagement Cell

IU Gazette 2017

Business Plan Competition

International Careers

IULMS

[Online - Chat With Us](#)

The image shows a web browser window displaying the mission statement page of Iqra University. The browser's address bar shows the URL <https://iqra.edu.pk/mission-statement/>. The website has a dark blue navigation bar with the following menu items: HOME, ABOUT IU, LIFE AT IQRA, PROGRAMS, FACULTY, ADMISSIONS, BLOG, and CONTACT US. The 'ABOUT IU' menu item is currently selected.

The main content area is titled 'Vision Statement' and contains the following text: 'To transform the lives of youth through world class education at an affordable price.' Below this is a section titled 'Vision Statement (Objectives)' which lists seven objectives, each preceded by a checkmark icon:

- ✓ Develop Leadership
- ✓ Promote Entrepreneurship
- ✓ Promote Advance Learning Methodology
- ✓ Promote Training
- ✓ Promote Lifelong Learning
- ✓ Uphold Islamic Values
- ✓ Promote Industry and University interaction

Below the objectives is a section titled 'Vision of the Business School' with the text: 'To produce market relevant professionals and entrepreneurs.' This is followed by 'The Mission Statement Of the Business School' which states: '*To offer world class education with focus on research, technical skills, critical thinking and ethical values in a technologically equipped environment, conducive to develop entrepreneurial and managerial skills for the betterment of business community & society*.'

On the right side of the page, there is a vertical sidebar menu with the following items: IULMS, Virtual Learning Environment, IU Policies, Social Media Policy, Academic Calendar, Transcript, Online Application, Plagiarism Test (Turnitin), Semester Schedule, Class Attendance, Download Faculty Lectures, Iqra Staff Email, and Iqra Student Email.

At the bottom right corner of the page, there is a blue button with a speech bubble icon and the text 'Online - Chat With Us'.

Why Choose IU?

- ✓ IU has been ranked Number-1 by Higher Education Commission in Business Education Category.
- ✓ IU has been chartered by the Government of Sindh via ordinance VI of 2000 and recognized by the Higher Education Commission.
- ✓ IU has been rated as the best private sector university in Sindh as per CEIC evaluation.
- ✓ IU has been rated by CEIC as a Six Star Institution.
- ✓ IU has been placed in "W4" category, the top category, by HEC.
- ✓ IU has established a network of campuses in the federal and provincial capitals of Pakistan.
- ✓ IU has maintained the most economical fee structure among all leading private educational institutions in Pakistan.
- ✓ IU's programs in Advertising, Animation, and Film and TV Production are supported by the most comprehensive and latest technology.
- ✓ IU has the most modern and comprehensive Fashion Design Program in Sindh.
- ✓ Faculty of IU includes the largest number of PhDs among the private universities of Pakistan.
- ✓ Faculty of IU includes many heads of national and multinational organizations.
- ✓ IU collaborates with universities of international repute for student and faculty exchange programs.
- ✓ The curricula designed at IU meet internationally accepted standards.
- ✓ IU facilitates all its graduates with job placement in leading organizations. Its students' pre-graduation employment rate is highest amongst all Universities.

OFFICE OF THE REGISTRAR

- Degree Verification
- Transcript Verification

STUDENT'S AREA

- 17th Convocation Registration
- Student Engagement Cell
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- International Careers
- IULMS
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Online - Chat With Us

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- ✓ The curricula designed at IU meet internationally accepted standards.
- ✓ IU facilitates all its graduates with job placement in leading organizations. Its students' pre-graduation employment rate is highest amongst all Universities.
- ✓ IU keeps its students informed through an online Student Information Center.
- ✓ IU facilitates its students with online faculty lectures and virtual classrooms.
- ✓ An online library with over 40,000 books and journals is always available for IU students and faculty.
- ✓ Executive Development Center at IU frequently holds trainings/workshops in a spacious auditorium with a seating capacity of 400-450 people.
- ✓ The number of research papers published by IU faculty and students is the highest among all business and engineering schools of Sindh.
- ✓ IU students can enjoy the facilities of a sports complex along with a swimming pool and a fully equipped gymnasium.
- ✓ IU sports teams have achieved the highest number of awards among all private-sector institutions and also represented Pakistan in Asian Games.
- ✓ IU students have won several top awards in the national and international advertising and film production competitions.

International Careers

IULMS

Virtual Learning Environment

IU Policies

Social Media Policy

Academic Calendar

Transcript

Online Application

Plagiarism Test (Turnitin)

Semester Schedule

Class Attendance

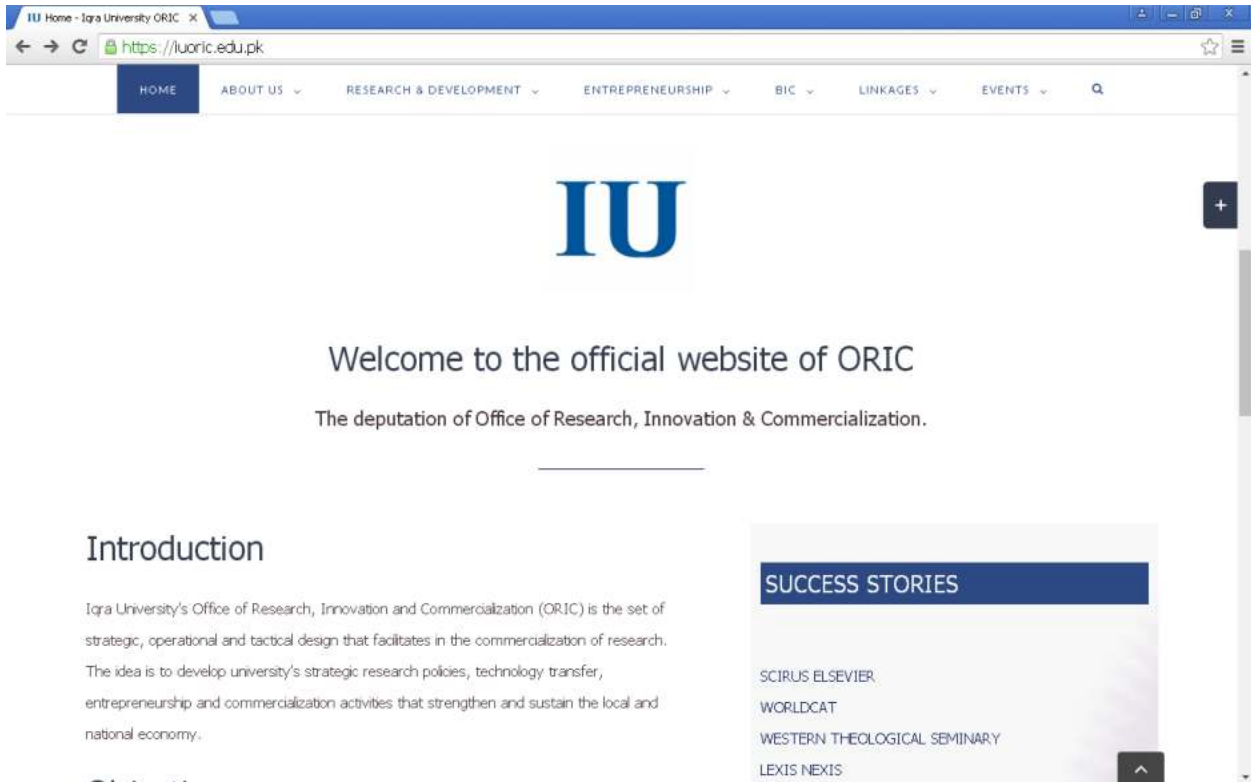
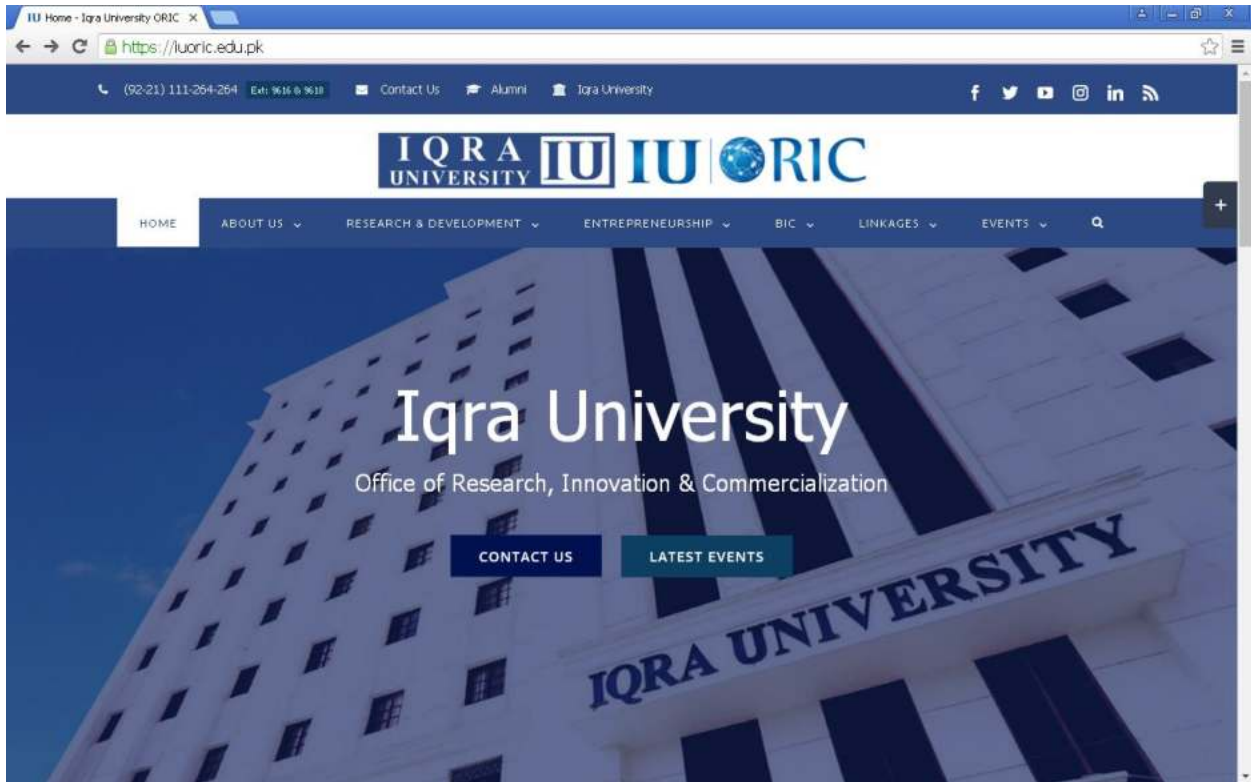
Download Faculty Lectures

Iqra Staff Email

Iqra Student Email

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Careers | Blog | Contact Us

Online - Chat With Us



national economy.

Objectives

ORIC affirms the broad mission of Iqra University in promoting advance research education for the under-graduate and post-graduate studies with an intention to enhance the value of Iqra University.

Major objectives of ORIC are:

- To grow research efforts, innovation and generate revenues by commercialising it.
- To create awareness regarding product development, industrial design or sourcing among students.
- Strengthening the relationship between university and industry.
- To attract potential investors from the industry to help incubator companies in accelerating their business.
- Maintaining stature of Iqra University by strengthening international linkages.

Joint Collaboration

09/16/2013

SAJMS is indexed with

DIRECTORY OF OPEN ACCESS JOURNALS (DOAJ)

JOURNAL OF ECONOMIC LITERATURE (JEL)

INDEX COPERNICUS INTERNATIONAL

ULRICH PERIODICAL DIRECTORY

GALE PERIODICAL

Role and Responsibilities of ORIC

Role and Responsibilities of ORIC

- Understanding the operations of academic research –how to preserve them, how to solve the problems that arise in them, and how to capitalize on their strengths—is one of ORIC's primary role and responsibility.
- To undertake research activities as directed by the HEC.
- To engage students and organize conferences, workshops, trainings for faculty, students and alumni.
- To promote and facilitate quality research with commercialization aspect.
- To create maximum benefit for industry, keeping in focus the on-going trends.
- Building and sustaining relationships between internal and external stakeholders.
- Securing IP rights (Patents, copyrights, designs and trademarks).

IU-ORIC acts as a hub of research activities, and enthusiastically manages the inflow and outflow of innovative and modern exchange of knowledge with industry and academia. With reference to the mission, IU-ORIC is accountable of guaranteeing that all research programs and policies reflect the core values of academic freedom, integrity and ethical conduct and full compliance with all policies, legal requirements and operational standards of the university.

Vision

Core Values

Mission

IU-ORIC acts as a hub of research activities, and enthusiastically manages the inflow and outflow of innovative and modern exchange of knowledge with industry and academia. With reference to the mission, IU-ORIC is accountable of guaranteeing that all research programs and policies reflect the core values of academic freedom, integrity and ethical conduct and full compliance with all policies, legal requirements and operational standards of the university.

Vision

ORIC will accelerate the pace of high-quality research by fostering linkages and communication...

[Learn More](#)

Core Values

Core values of IU-ORIC seeks to create and design unbending adherence to social progress and for academic enhancement.

- Learning
- Diversity
- Leadership
- Integrity
- Global/Industrial Engagement
- Innovative and Creativity

Mission

Research is used as an academic dialogue, to include not only the diverse activities relating to publication, performance and presentation...

[Learn More](#)

© Iqra University | Office of Research, Innovation & Commercialization (ORIC) | All Rights Reserved

Iqra University's Office of Research, Innovation and Commercialization (ORIC) is the set of strategic, operational and tactical design that facilitates in the commercialization of research. The idea is to develop university's strategic research policies, technology transfer, entrepreneurship and commercialization activities that strengthen and sustain the local and national economy.

Vision

ORIC will accelerate the pace of high-quality research by fostering linkages and communication between research intellectuals, professionals, promoting innovation and assuring adherence to ethical and regulatory standards.

Our vision is to foster Iqra University as an internationally valued research source, and to produce maximum number of commercialize research and businesses.

Quick Links

- Ranking
- Thesis I Submission Requirements
- Thesis II Submission Requirements
- SAJMS
- Turnitin
- Results – Thesis I
- Internship

Indexing Agencies

- ISI-Thomson Reuters
- RePEc
- Scopus

IQRA UNIVERSITY | IU | IU | ORIC

HOME ABOUT US RESEARCH & DEVELOPMENT ENTREPRENEURSHIP BIC LINKAGES EVENTS

Mission

Home / Mission

Mission Statement

ORIC's mission is:

- To contribute to improvements in professional practice through dissemination of research knowledge.
- To focus on the projects and commercialize the maximum content of research.
- To engage in research to contribute to development of economy, professional practice and technology.

Quick Links

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Objectives

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- To create awareness regarding product development, industrial design or sourcing among students.
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- To attract potential investors from the industry to help incubator companies in accelerating their business.
- Maintaining stature of Iqra University by strengthening international linkages.

Role and Responsibilities of ORIC

- Understanding the operations of academic research –how to preserve them, how to solve the problems that arise in them, and how to capitalize on their strengths—is one of ORIC's primary role and responsibility.
- To undertake research activities as directed by the HEC.
- To engage students and organize conferences, workshops, trainings for faculty, students and alumni.
- To promote and facilitate quality research with commercialization aspect.

Indexing Agencies

- ISI Thomson Reuters
- RePEc
- Scopus
- EconLit

CALL FOR PAPERS

III Mission | ORIC - Iqra Univer | X

← → C <https://iuoric.edu.pk/mission/> ☆ ☰

HOME ABOUT US RESEARCH & DEVELOPMENT ENTREPRENEURSHIP BIC LINKAGES EVENTS Q

Role and Responsibilities of ORIC


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CALL FOR PAPERS

Iqra University - Where | X

← → C <https://iqra.edu.pk> ☆ ☰



UNIVERSITY IU
Where your future begins!

HOME ABOUT IU LIFE AT IQRA PROGRAMS FACULTY ADMISSIONS BLOG CONTACT US

Sports Complex
Business School's Research Ranking of Pakistan
CRC
Student Societies
Medical Facility
Hostel Facility
Library
Transport Services
Digital Library
Placement Services

HEC RANKING OF UNIVERSITIES - 2016
IQRA UNIVERSITY IS RANKED NUMBER 1
"THE BEST BUSINESS SCHOOL IN PAKISTAN"
By Higher Education Commission of Pakistan
in it's Latest Ranking of 2016
http://hec.gov.pk/InsideHEC/Divisions/QALI/Other/BankingofUniversities/Documents/Ranking_Doc.pdf



CONFERENCES

ICIET(ESS) 2018
ICIET(BM) 2018
ICEEST 2018

Questions? Click here to chat with us
Online - Chat With Us

<https://iqra.edu.pk/#>

The screenshot shows the IQRA University website with a video player overlay. The website header includes the slogan "Where your future begins!" and navigation links for HOME, ABOUT US, BLOG, and CONTACT US. A prominent banner features the text "HEC RANKING IQRA UNIVERSITY 'THE BEST BUSINESS SCHOOL IN PAKISTAN' By Higher Education Commission of Pakistan in it's Latest Ranking of 2016" and a link to a ranking document. A sidebar on the right contains buttons for "MISSION INQUIRIES", "MISSION FORM", and "TOUR", along with a photo of a man in a suit. A "CONFERENCES" section lists "ICIET(ESS) 2018", "ICIET(BM) 2018", and "ICEEST 2018". A chat bubble asks "Questions? Click here to chat with us" and an "Online - Chat With Us" button is visible at the bottom right.

This screenshot is similar to the one above but features a different video player overlay. The video player shows a "Two Minutes Tour of IU" with a play button, a progress bar at 0:14 / 2:32, and a "YouTube" logo. The website background remains the same, displaying the same ranking banner, navigation, and sidebar elements as the first screenshot.

4- COMSATS

COMSATS University Islamabad

CUI ranked 131 in the prestigious Times Higher Education (THE) Emerging Economies University Rankings 2018

RANKED = 131ST

www.thewur.com

COMSATS University Islamabad is ranked amongst the top 10 universities of Pakistan as per HEC recent rankings

HEC Introduces Green...html - 152452eo.pdf - Inclusive and Sustaina...pdf - How sustainable are o...html - Pakistan ,...Sustainab...html - Show all downloads...

COMSATS University Islamabad

Latest News

Walk in Interview (Dr. Imran Shahzad) - Research Assistant-Islamabad Campus
Posted on October 25, 2018
[DETAILS](#)

Position Vacant Research Associate for PSF Project Dr. Asim Laeeq
Posted on October 22, 2018
[DETAILS](#)

HEC, VCs Condemn Maltreatment against VCs, Teachers - Vice Chancellors' Committee Resolution
Posted on October 16, 2018
[DETAILS](#)

Events

Oct	Entrepreneur's Show-Isb2018 10 October, 2018 DETAILS
Oct	Design Pedagogies; Analyzing current trends and shaping the future. Conference on Architectural Education 24th - 25th October, 2018 DETAILS
Sep	Workshop on Scientific Manuscript Writing 27th - 28th September, 2018 DETAILS
Nov	Salcon 2018 26-28 November, 2018. Serena Hotel Islamabad. DETAILS

HEC Introduces Green...html - 152452eo.pdf - Inclusive and Sustaina...pdf - How sustainable are o...html - Pakistan ,...Sustainab...html - Show all downloads...

COMSATS University Islamabad | News / Event Details | ww3.comsats.edu.pk/oric-pd/NewsEventDetail.aspx?id=144648

+92-51-90496027

ORIC Professional Development
COMSATS University Islamabad

HOME ABOUT US OUR ADVANTAGE CALENDAR REGISTER FACILITIES GALLERY DOWNLOADS CONTACT US

Workshop on Scientific Manuscript Writing (27th – 28th September, 2018)

The overarching goal of this workshop is to improve the research productivity of investigators working at different institutions across Pakistan. This two-day event, comprised of interactive lectures as well as assignments and in-class training, will comprehensively cover every facet of preparing a manuscript for submission into any reputable journal.

Who Should Attend?
Students, Faculty members and Academic Researchers.

Workshop registration fee is Rs. 15,000 per participant. Special Discount for students.

LAST DATE TO REGISTER: 24th September, 2018

Interested persons may register online by clicking "REGISTER" on the ORIC-PD website <http://ww3.comsats.edu.pk/oric-pd/> and submit their fee in advance.

For further inquiries please email Mr. Uzair Alvi uzair.alvi@comsats.edu.pk or call 0340-0505570.

Thursday, September 27, 2018

Quick Links

- Office of Research Innovation and Commercialization
- CIIT Islamabad Campus
- Cubator 1ne
- Student Startup Business Center
- IDEAS
- CIIT Scholarships Portal

HEC Introduces Green...html | 152452eo.pdf | Inclusive and Sustaina...pdf | How sustainable are o...html | Pakistan -... Sustainab...html | Show all downloads...

COMSATS University Islamabad | About Us | ww2.comsats.edu.pk/saicon2018/aboutus.aspx

SAICON 2018
Conference on Business Data science
26th to 28th November 2018 - COMSATECH Headquarters

Creating a Niche in the Knowledge Economy

ABOUT US WHY PARTICIPATE? TENTATIVE PROGRAM REGISTRATION CALL FOR PAPER IMPORTANT DATES VENUE COMMITTEES CONTACT US

Who we are?

Introduction to Saicon

The South Asian International Conference (SAICON) is an annual conference organized by the COMSATS University (CU). SAICON is a platform through which contemporary and developing ideas on business, economics and social sciences are discussed and academics and researchers interact with the industry professionals.

SAICON provides an excellent opportunity to researchers and professionals to network and discuss market changes and transformation which are shaping the market demographics. The SAICON strives to develop a community which encourages the exchange of ideas and facilitates learning.

Conference Theme

Big data and artificial intelligence are causing tidal waves of disruption across industries. Organizations that fail to leverage these technologies may be disrupted. Innovation requires digital transformation of the organizations, which may involve new business models and processes. These challenges are especially difficult to meet because of acute shortage of data scientists.

The key challenge for business education today is not just to introduce courses in machine learning in their curricula but to mainstream data science across all areas of business education.

Quick Links

- SAICON 2017
- SAICON 2016
- SAICON 2015
- SAICON 2014
- CUI HOME
- CUI Islamabad
- Department of Management Sciences

HEC Introduces Green...html | 152452eo.pdf | Inclusive and Sustaina...pdf | How sustainable are o...html | Pakistan -... Sustainab...html | Show all downloads...

This screenshot shows a video gallery on the COMSATS website. The gallery features six video thumbnails with their respective titles: 'Governor of Punjab Meeting Rector CUI (2017)', 'The installation of 100 KW Pilot Solar Power', 'HEC Song (Upload...)', 'Comsats Islamabad Energy Park', 'COMSATS Abbottabad Campus Tour', and 'Express News Report on Architecture Thesis Display'. The website's navigation menu is visible at the top, and the browser's address bar shows 'www.comsats.edu.pk'.

This screenshot shows the main page of the COMSATS University Islamabad website. The header includes the university logo and navigation links for Faculty/Staff, Departments, Contact, Complaint Cell, and Search. A large banner image of the CUI Lahore campus is displayed, with the text 'CUI Lahore' and '1.5 KM Defence Road, Off Raiwind, Lahore, Pakistan'. Below the banner, a text box states: 'COMSATS University Islamabad is ranked amongst the top 10 universities of Pakistan as per HEC recent rankings'. The browser's address bar shows 'www.comsats.edu.pk'.

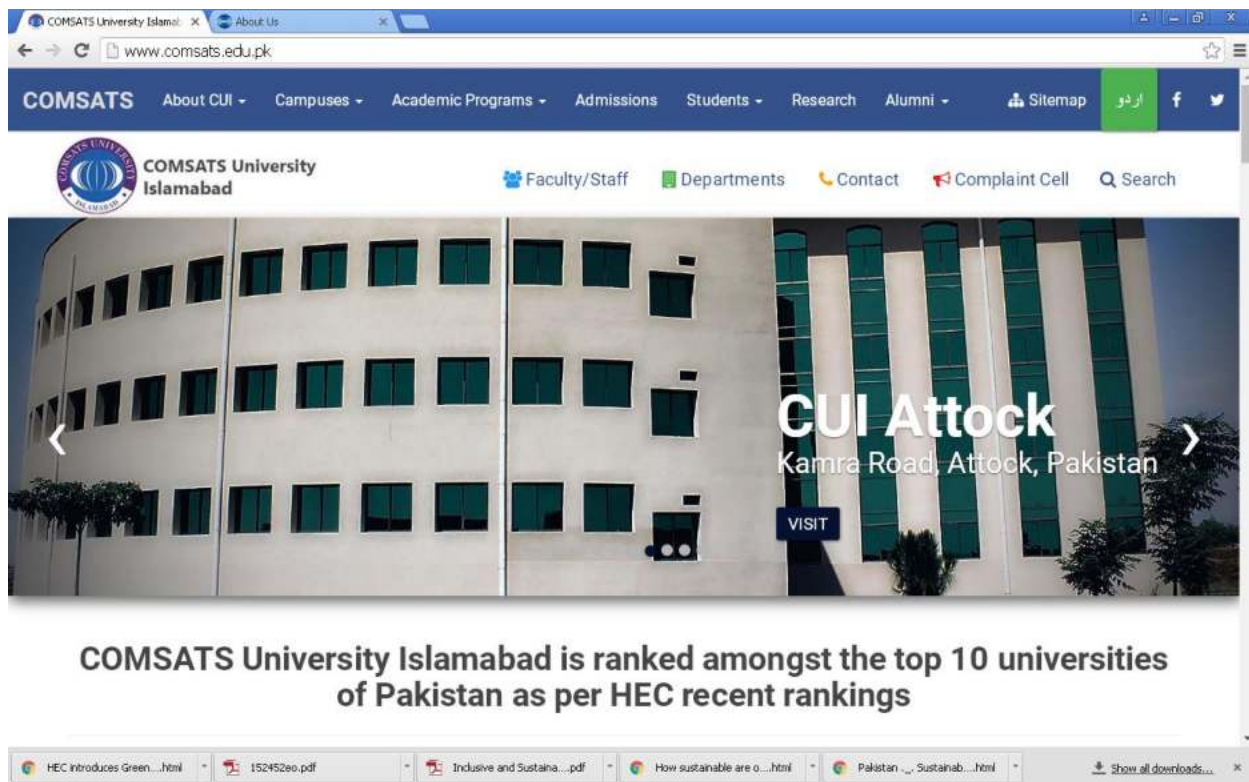
The screenshot shows the website for COMSATS University Islamabad. The top navigation bar includes links for 'COMSATS', 'About CUI', 'Campuses', 'Academic Programs', 'Admissions', 'Students', 'Research', and 'Alumni'. A green button labeled 'اردو' (Urdu) is visible. Below the navigation bar, the university logo and name are displayed. A secondary navigation bar contains 'Faculty/Staff', 'Departments', 'Contact', 'Complaint Cell', and a search icon. The main banner features a large photograph of the CUI Sahiwal building, a multi-story brick structure with a modern architectural style. Overlaid on the right side of the banner is the text 'CUI Sahiwal' in a large, white, sans-serif font, followed by 'COMSATS Road, Off GT Road, Sahiwal, Pakistan' in a smaller font. A 'VISIT' button is positioned at the bottom right of the banner. Below the banner, a text block states: 'COMSATS University Islamabad is ranked amongst the top 10 universities of Pakistan as per HEC recent rankings'. The browser's address bar shows 'www.comsats.edu.pk'. The taskbar at the bottom displays several open files, including 'HEC Introduces Green...html', '152452eo.pdf', 'Inclusive and Sustaina...pdf', 'How sustainable are o...html', and 'Pakistan ... Sustanab...html', along with a 'Show all downloads...' button.

This screenshot is similar to the one above, showing the website for COMSATS University Islamabad. The navigation and secondary navigation elements are identical. The main banner features a photograph of the CUI Wah building, a two-story brick building with large windows. The text 'CUI Wah' is overlaid in a large, white, sans-serif font, with 'GT Road, Wah Cantt, Pakistan' below it. A 'VISIT' button is located at the bottom right of the banner. The text below the banner reads: 'COMSATS University Islamabad is ranked amongst the top 10 universities of Pakistan as per HEC recent rankings'. The browser's address bar and taskbar are also visible, showing the same website URL and open files as in the previous screenshot.

The screenshot shows the website for COMSATS University Islamabad. The browser address bar displays www.comsats.edu.pk. The navigation menu includes: COMSATS, About CUI, Campuses, Academic Programs, Admissions, Students, Research, Alumni, Sitemap, and a language selector for Urdu. Below the menu, there are links for Faculty/Staff, Departments, Contact, Complaint Cell, and a search bar. The main banner features a photograph of the CUI Vehari building, a large red brick structure with a white section. Text on the banner reads: **CUI Vehari**, Mailsi Road, Off Multan Road, Vehari, Pakistan, with a **VISIT** button. Below the banner, a text block states: **COMSATS University Islamabad is ranked amongst the top 10 universities of Pakistan as per HEC recent rankings**. The bottom of the page shows a Windows taskbar with several open browser tabs: "HEC Introduces Green...", "152452eo.pdf", "Inclusive and Sustaha...", "How sustainable are o...", and "Pakistan - Sustahab...".

The screenshot shows the website for COMSATS University Islamabad. The top navigation bar includes links for COMSATS, About CUI, Campuses, Academic Programs, Admissions, Students, Research, Alumni, Sitemap, and a language selector for Urdu. Below the navigation bar is the university logo and name, along with links for Faculty/Staff, Departments, Contact, Complaint Cell, and a search function. The main banner features a photograph of the CUI Abbottabad building with the text "CUI Abbottabad" and "Tobe Camp, University Road, Post Code 22060, Abbottabad". A "VISIT" button is present. Below the banner, a text block states: "COMSATS University Islamabad is ranked amongst the top 10 universities of Pakistan as per HEC recent rankings". The browser's taskbar at the bottom shows several open tabs related to sustainability and HEC rankings.

This screenshot is similar to the one above, showing the website for COMSATS University Islamabad. The navigation and header elements are identical. The main banner features a photograph of the CUI Islamabad building with the text "CUI Islamabad" and "Park Road, Talhar Kalan, Islamabad". A "VISIT" button is present. Below the banner, the text "COMSATS University Islamabad is ranked amongst the top 10 universities" is partially visible. The browser's taskbar at the bottom shows the same set of open tabs as the first screenshot.



COMSATS University Islamabad

Faculty/Staff Departments Contact Complaint Cell Search

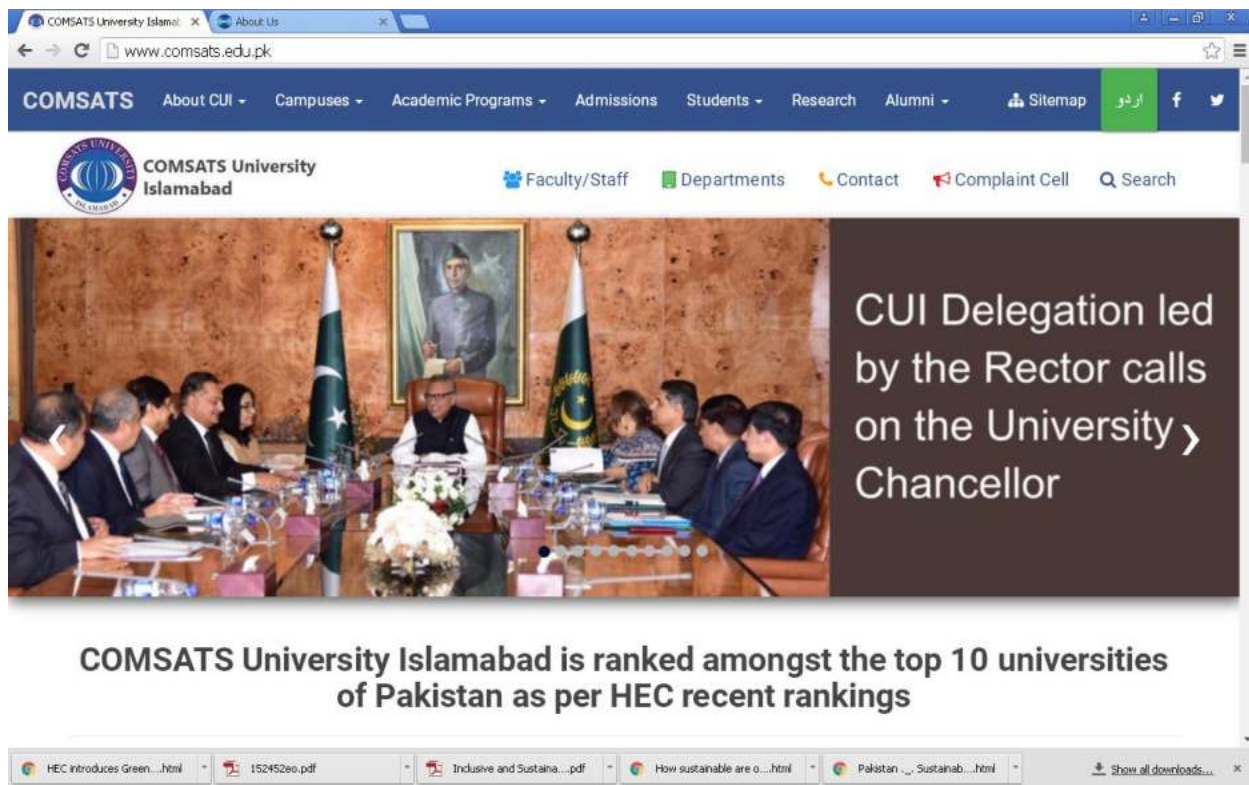
CUI Attock

Kamra Road, Attock, Pakistan

VISIT

COMSATS University Islamabad is ranked amongst the top 10 universities of Pakistan as per HEC recent rankings

HEC Introduces Green...html 152452eo.pdf Inclusive and Sustaina...pdf How sustainable are o...html Pakistan ... Sustainab...html Show all downloads...



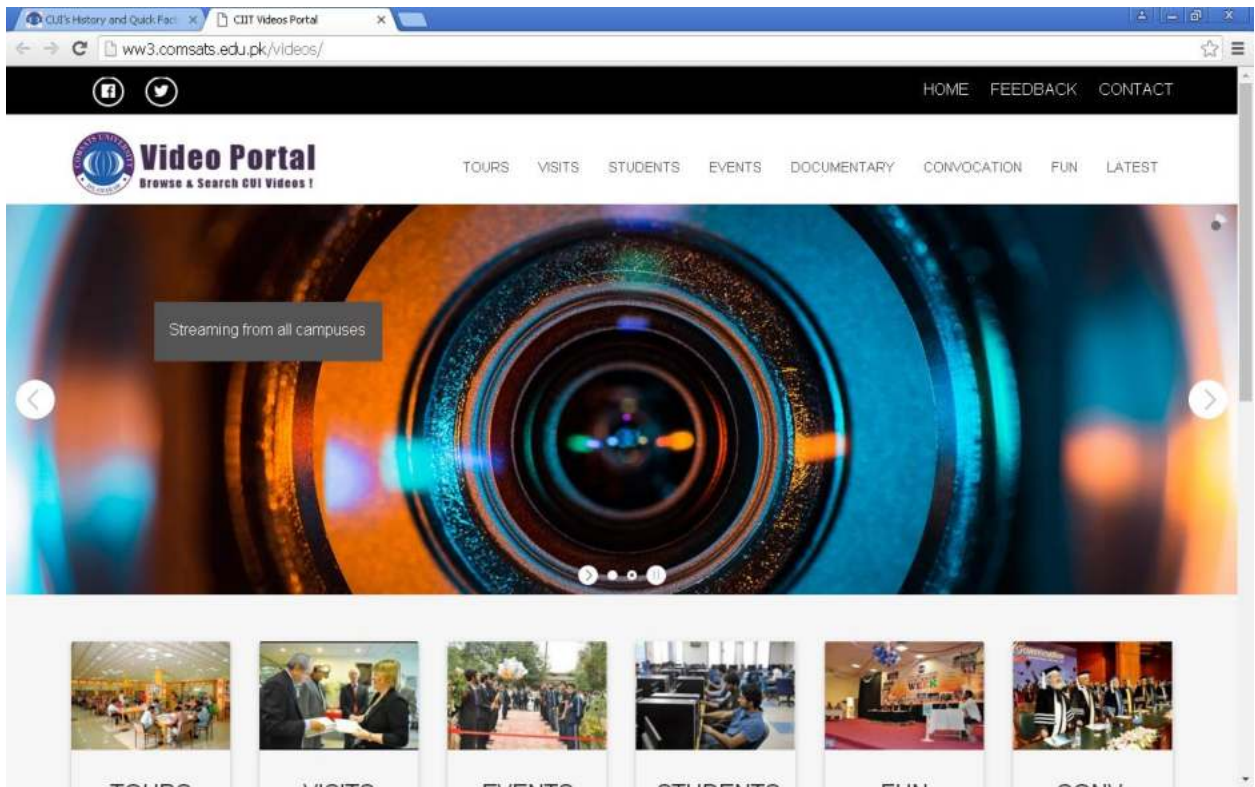
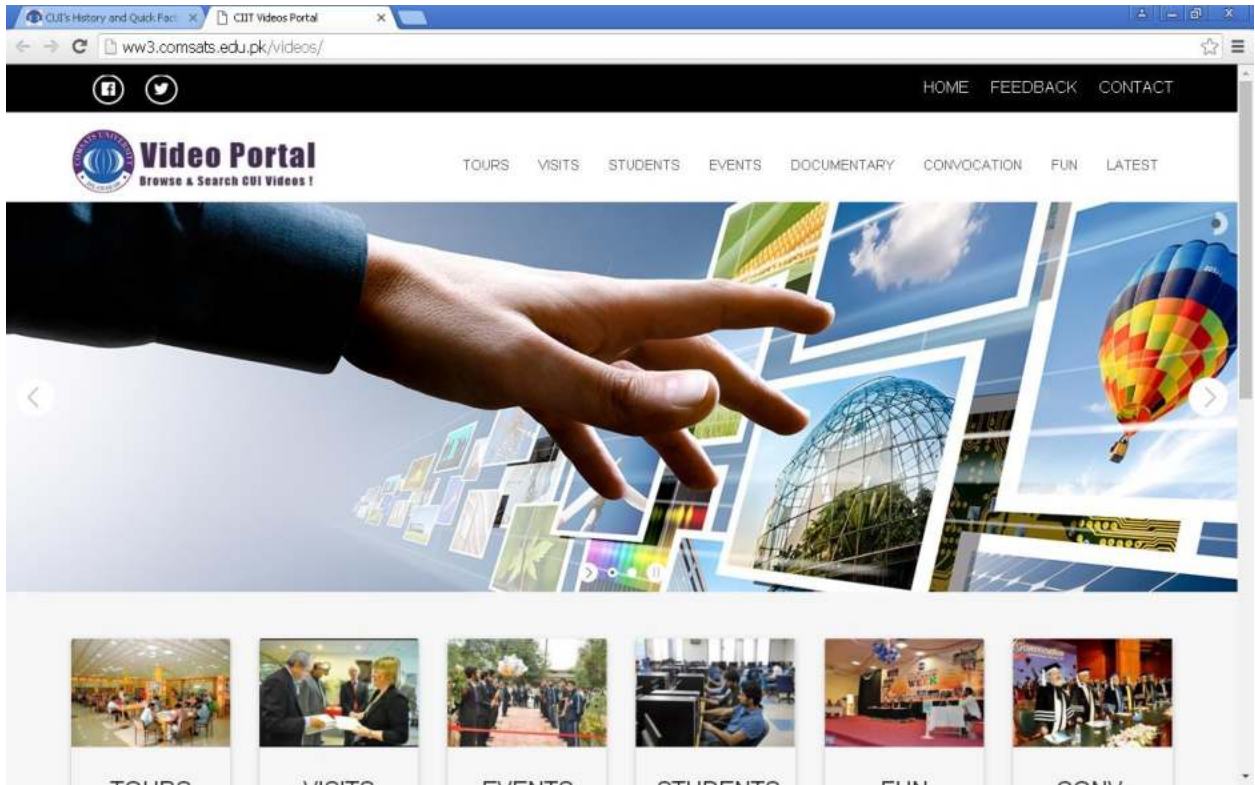
COMSATS University Islamabad

Faculty/Staff Departments Contact Complaint Cell Search







CUI Delegation led by the Rector calls on the University Chancellor

COMSATS University Islamabad is ranked amongst the top 10 universities of Pakistan as per HEC recent rankings




HEC Introduces Green...html 152452eo.pdf Inclusive and Sustaina...pdf How sustainable are o...html Pakistan ... Sustainab...html Show all downloads...



CUU's History and Quick Faci CIIT Videos Portal
ww3.comsats.edu.pk/videos/

 TOURS View Videos >>	 VISITS View Videos >>	 EVENTS View Videos >>	 STUDENTS View Videos >>	 FUN View Videos >>	 CONV. View Videos >>
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Latest Uploaded Videos

 CUI-Finalises EU's Ru... www3.comsats.edu.pk/videos/Events.aspx	 45 MINTS 15 09 2018	 Dinner at COMSATS U.
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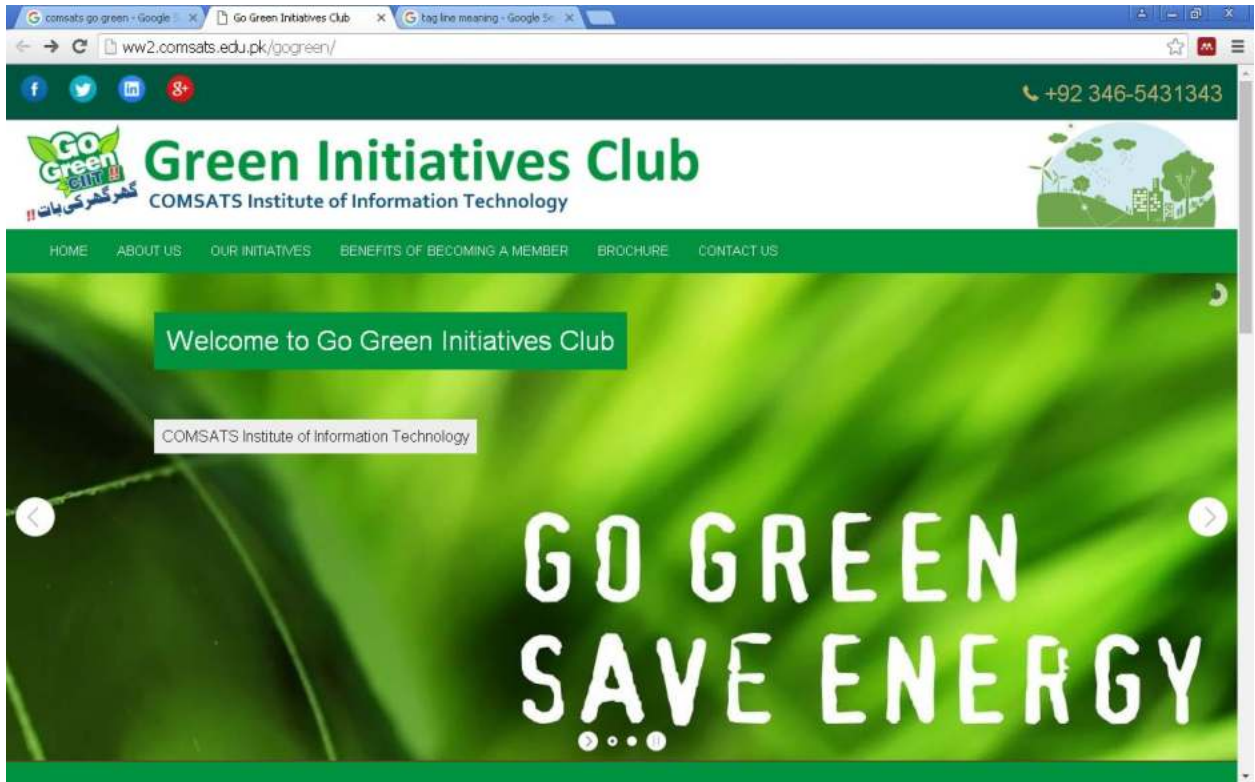
Islamabad Campus
Islamabad.comsats.edu.pk

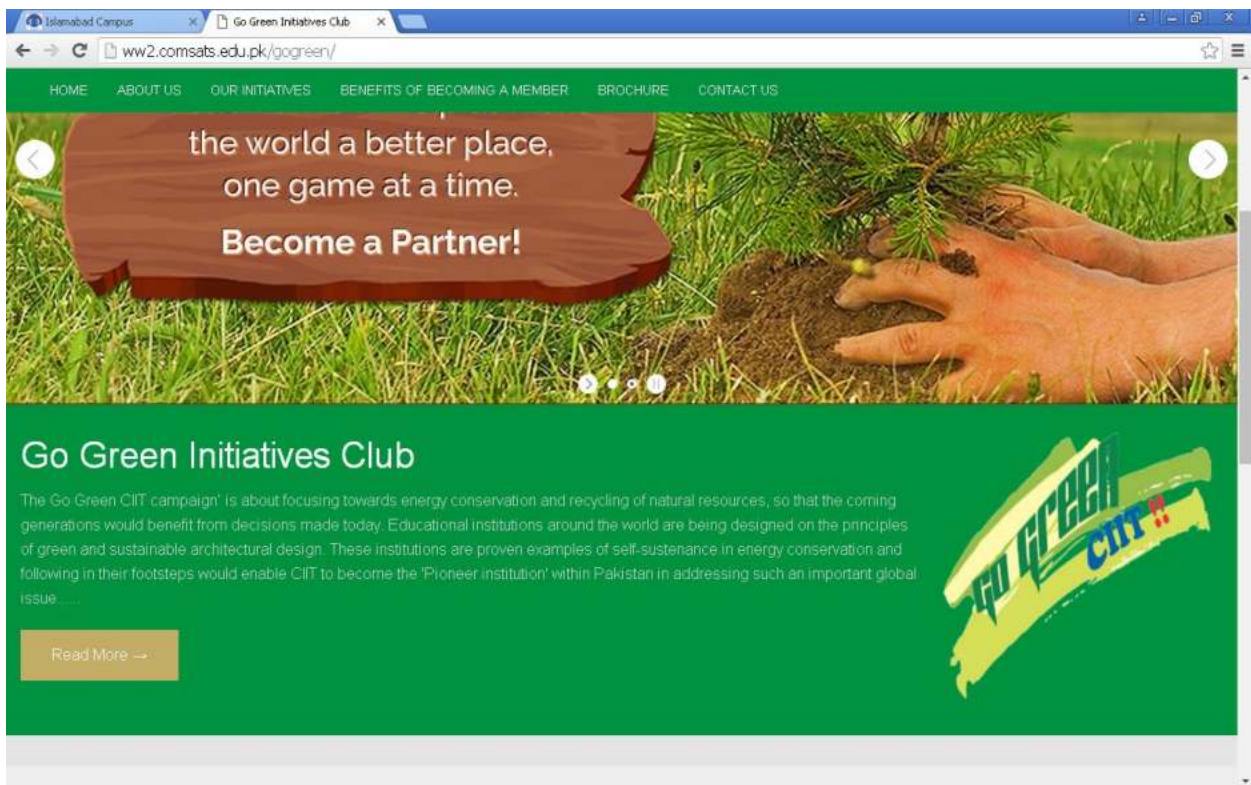
Quick Links

CISCO ACADEMY	UNDERGRADUATE ADMISSION PROCEDURE	GRADUATE ADMISSION PROCEDURE	CONFIGURE OFFICE 365 ON MOBILE DEVICES		
HALLS RESERVATION SCHEDULE	VIDEO PORTAL	CUBATOR 1 NE	PROSPECTUS	TELEPHONE DIRECTORY	SCHOLARSHIPS
COMSATS READERS' SOCIETY	COURSE CATALOG	QUALITY ENHANCEMENT CELL	CU-ONLINE	JOB PORTAL	ENDOWMENT FUND
ACCESS TO SECP GUIDEBOOKS	WEATHER FORECAST OF ISLAMABAD FOR NEXT 24 HOURS				


Campuses ABBOTTABAD WAH LAHORE ATTOCK SAHIWAL VEHARI VIRTUAL	Reach Us at Park Road, Tariqai Kalan, Islamabad, Pakistan	Contact Us EMAIL: admissions@comsats.edu.pk TEL 1: +92-51-9247000-9247002 TEL 2: +92-51-9049802 UAN: +92-51-111-001-007	Follow Us f t i p
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COMSATS University Islamabad CHAK SHAHZAD
Sign in





Islamabad Campus | About Us | ww2.comsats.edu.pk/gogreen/about_us.aspx | +92 346-5431343



Green Initiatives Club

COMSATS Institute of Information Technology

HOME ABOUT US OUR INITIATIVES BENEFITS OF BECOMING A MEMBER BROCHURE CONTACT US

About Us

The 'Go Green CIIT campaign' is about focusing towards energy conservation and recycling of natural resources, so that the coming generations would benefit from decisions made today. Educational institutions around the world are being designed on the principles of green and sustainable architectural design. These institutions are proven examples of self-sustenance in energy conservation and following in their footsteps would enable CIIT to become the 'Pioneer institution' within Pakistan in addressing such an important global issue. The campaigns will act as a catalyst for CIIT to establish collaboration with World Society of Sustainable Energy Technologies (WSSET) at Department of Architecture and Built Environment, Nottingham University, UK.

During the Campaign the CIIT has planned such activities which will involve students and faculty members at the CIIT campuses and outdoors as well as series of lectures and video presentations by the experts of the concerned fields, an exhibition, poster competition, exhibitions and cleanup of various areas within the city, will be undertaken by the students and faculty.

The opening ceremony of the 'The Go Green CIIT campaign' was held Tuesday in front of CIIT Library Islamabad Campus. CIIT Rector Dr. SM Junaid Zaidi, was the chief guest. During his opening remarks, CIIT rector, said Initiatives like these can become a strong graphic campaign that would bring CIIT at par with other international institutions, which have addressed and are addressing this global issue of energy conservation.


Quick Links

- COMSATS Institute of Information Technology
- CIIT Islamabad
- Department of Architecture & Design
- CIIT Photo Gallery
- CIIT Blogs

Reach Us

COMSATS University... Sign In

Islamabad Campus | Our Initiatives | ww2.comsats.edu.pk/gogreen/OurInitiatives.aspx | +92 346-5431343



Green Initiatives Club

COMSATS Institute of Information Technology

HOME ABOUT US OUR INITIATIVES BENEFITS OF BECOMING A MEMBER BROCHURE CONTACT US

Our Initiatives

1. REDUCE, REUSE AND RECYCLE

Reduce:

- Save energy by turning off lights that you are not using
- Save water by turning off the tap while you brush your teeth

Reuse:

- Use all writing paper on both sides.
- Reuse grocery bags instead of throwing them away
- Use silverware and dishes instead of disposable plastic utensils and plates.
- Store food in reusable plastic containers
- Windows and doors, plumbing fixtures, and even brick can be successfully reused

Recycle:

- Recycling allows all of these junk items to be used over and over again so that new resources do not have to be exploited and it conserves natural resources such as water, minerals, coal, oil, gas and timber

Quick Links

- COMSATS Institute of Information Technology
- CIIT Islamabad
- Department of Architecture & Design
- CIIT Photo Gallery
- CIIT Blogs

Reach Us

COMSATS University... Sign In

5- Karakoram International university

The screenshot displays the Karakoram International University website. The browser address bar shows the URL <https://www.kiu.edu.pk>. The website header includes the university's logo, the name "KARAKORAM INTERNATIONAL UNIVERSITY", and navigation links for Mail, Alumni, Careers, Contact Us, and Faculty Login. A language dropdown menu is set to "English". Social media icons for Facebook, Twitter, YouTube, and LinkedIn are also present.

The main navigation menu includes: HOME, ABOUT KIU, ACADEMICS, ADMINISTRATION, ADMISSIONS, EXAMINATION, PROJECTS, RESEARCH, and CENTERS.

The central banner features a green background with a stylized leaf logo and the text "CLEANGREENPAKISTAN" in English and Urdu. The Urdu text reads "صاف سبز پاکستان" and "صفائی نصف ایمان ہے". Below the banner, a dark bar contains the text "Clean Green Pakistan (Cleanliness Day Celebration)".

The browser's taskbar at the bottom shows several open tabs: "HEC Introduces Green...html", "152452eo.pdf", "Inclusive and Sustaina...pdf", "How sustainable are o...html", and "Pakistan - Sustainab...html". A "Show all downloads..." button is also visible.

Karakoram International University

https://www.kiu.edu.pk

Latest News

- KIU becomes in world 1000 universities adopting Green Metric Initiatives 1 week ago
- MoU signed between KIU and Pakistan Council of Renewable Energy Technologies 1 week ago
- KIU will arrange summer camp and short course at Islamabad 2 weeks ago
- Collaboration meeting between VC KIU and ED Media House Islamabad 2 weeks ago
- Dr. Attaullah Shah elected Vice Chairman Civil at Institution of Engineers Pakistan 2 weeks ago

[View All](#)

Recent Research

- Qamar Abbas, Rahmatullah Qureshi, Arif Un Nisa Naqvi, Sher Wali Khan, and H...
- Hussain, A, S.S. Shaukat, M. Ahmed, Muhammad Akbar, W. Ali , H. Z. Magri...
- 9- Shaukat Ali, Farida Begum,, Syed Arif Hussain, Muhammad Akbar, Sujjad H...
- Qutoshi, S. B. (2016). Creating My Own Living-Theory. An Autoethnographic-s...
- Fehmat Karim, Najma Najam, Irena Mrak, Tika Khan, Kifayat Ullah, Researcher...

[All Publications](#)

Upcoming Events

Karakoram International University

https://www.kiu.edu.pk/news/kiu-becomes-in-world-1000-universities-adopting-green-metric-initiatives

Mail Alumni Careers Contact Us Faculty Login

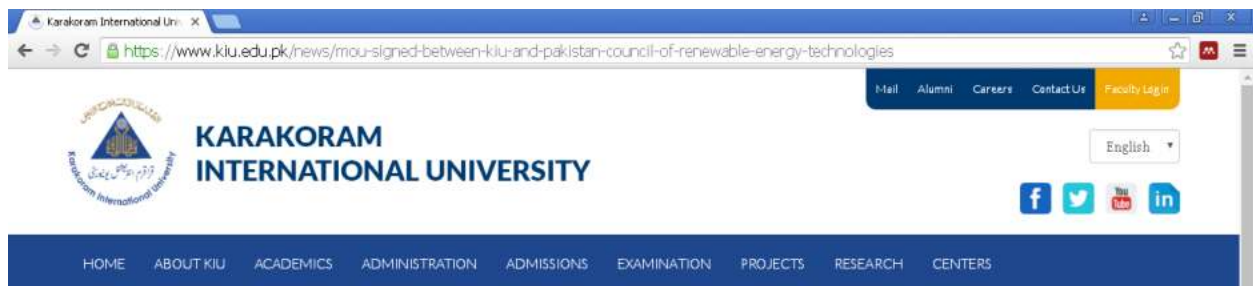
English

Facebook Twitter YouTube LinkedIn

HOME ABOUT KIU ACADEMICS ADMINISTRATION ADMISSIONS EXAMINATION PROJECTS RESEARCH CENTERS

KIU becomes in world 1000 universities adopting Green Metric Initiatives

KIU selected in World 1000 Universities adopting Green Metric initiatives during 2018. The initiatives include the use of Renewable energy, green buildings, environment-friendly design etc. The certification is done by University of Indonesia and KIU has joined it last year at the advice of KIU. The VC KIU Prof. Dr. Attaullah Shah congratulated KIU team and Mr.Sadat Sher Khan for joining the club. He advised him to develop an implementation plan with HoDs and Students' Societies. This may include greening the campus with more plantation, waste Management, Cleanliness of Campus, involving students in these initiatives to create awareness as well. KIU will continue its endeavors to enhance its ranking by adopting more Green initiatives under the guidance if HEC and University of Indonesia.



MoU signed between KIU and Pakistan Council of Renewable Energy Technologies

MoU signed between KIU and Pakistan Council of Renewable Energy Technologies (PCRET) to establish Centre of Renewable Energy and Appropriate Technologies (CREAT) at KIU. The MoU was signed by Vice Chancellor KIU Prof. Dr

Attallah Shah and DG PCRET Dr. Baqir Raza. Both the organizations will jointly arrange seminars, conferences, and workshops for creating awareness about RE and it's an application.



Integrated Mountain Areas Research Center

Over View **Mission** Objectives Mandate Thematic Areas Collaborations Our Staff

The Northern Mountainous Region of Pakistan is regarded as the most glaciated landscape on earth outside the Polar Regions; also known as water towers of Asia. The entire area serves as a living nature museum to study the unique geological, geographic, ecological and socio-cultural features of mountainous areas and societies. The Karakoram International University (KIU), Gilgit situated in northern Pakistan at the confluence of the world's great mountain ranges of Karakoram, Himalaya, Hindu Kush and Pamirs, strives to promote knowledge on mountains and associated resources.

In order to institutionalize the academic, research and development initiatives, aimed towards knowledge of mountain societies and resources, the University has established a Centre namely Integrated Mountain Areas Research Centre (IMARC). Establishment of the Centre started in 2010 with the financial and technical support of Social, Economic and Environmental Development (SEED) Project for Central Karakoram National Park (CKNP), an initiative under Pakistan-Italy Debt for Development Swap Agreement. IMARC is an integral part of KIU and has been established with approval from KIU statutory bodies.

Useful Links

Karakoram International Uni X
<https://www.kiu.edu.pk/center/integrated-mountain-areas-research-center>


Integrated Mountain Areas Research Center

Over View **Mission** Objectives Mandate Thematic Areas Collaborations Our Staff


A state-of-the-art institution, aimed at holistic, integrated and sustainable mountain development through cutting-edge academic, research and capacity-building initiatives.

Useful Links


- [Campus Facilities](#)
- [Alumni](#)
- [Contact](#)




SCDC, KIU



Digital Library



KIU Newsletter



Microsoft For All

Karakoram International Uni X
<https://www.kiu.edu.pk/center/integrated-mountain-areas-research-center>


Integrated Mountain Areas Research Center

Over View **Mission** Objectives Mandate Thematic Areas Collaborations Our Staff


- To initiate academic programs to develop qualified human resource to cater for the needs of sustainable mountain development including teaching, learning, and research;
- To embark upon a research program and engage in various national and international research and academic organizations to promote research on diverse fields of mountain studies;
- To design and implement human and institutional development programs including capacity-building, community outreach, training, and policy input to promote sustainable mountain development in Pakistan and elsewhere in the world; and
- To act as a knowledge hub on mountains, associated resources, and societies.

Useful Links


- [Campus Facilities](#)
- [Alumni](#)
- [Contact](#)



SCDC, KIU



Digital Library



KIU Newsletter



Microsoft For All


Karakoram International Uni X
← → ↻ <https://www.kiu.edu.pk/center/integrated-mountain-areas-research-center> ☆ AM ☰


Integrated Mountain Areas Research Center


[Over View](#) [Mission](#) [Objectives](#) [Mandate](#) [Thematic Areas](#) [Collaborations](#) [Our Staff](#)


- Running Academic Program in Thematic Areas
- Conducting Research on Mountain Issues
- Capacity building

Useful Links
[Campus Facilities](#)
[Alumni](#)
[Contact](#)

 ECDC, KIU

 Digital Library

 KIU Newsletter

 Microsoft For All

Karakoram International Uni X

← → C <https://www.kiu.edu.pk/center/integrated-mountain-areas-research-center> ☆ M ☰

Integrated Mountain Areas Research Center

Over View Mission Objectives Mandate **Thematic Areas** Collaborations Our Staff

- Applied geology, geohazards, and sustainable mineral resource development
- Atmospheric sciences and climate change
- Mountain Forestry
- Wildlife Ecology, Conservation, and Management
- Glaciology and mountain hydrology
- Water resources management
- Rangelands Conservation and Management
- Innovative technologies for territorial management (GIS & Remote Sensing)
- Rural development and management
- Sustainable mountain agriculture
- Tourism and hospitality studies
- Food Security and Climate Change
- Disaster studies
- Biodiversity and Conservation
- Soil Sciences

Karakoram International Uni X

← → C <https://www.kiu.edu.pk/center/integrated-mountain-areas-research-center> ☆ M ☰

- Water resources management
- Rangelands Conservation and Management
- Innovative technologies for territorial management (GIS & Remote Sensing)
- Rural development and management
- Sustainable mountain agriculture
- Tourism and hospitality studies
- Food Security and Climate Change
- Disaster studies
- Biodiversity and Conservation
- Soil Sciences
- Livestock management
- Mountain societies and languages

Useful Links

- Campus Facilities
- Alumni
- Contact

 BGDC, KIU

 Digital Library

 KIU Newsletter

 Microsoft For All

Karakoram International Uni X
https://www.kiu.edu.pk/center/integrated-mountain-areas-research-center

Integrated Mountain Areas Research Center

Over View **Mission** **Objectives** **Mandate** **Thematic Areas** **Collaborations** **Our Staff**

International

- Chinese Academy of Sciences (CAS)
- Melbourne University Australia
- ICIMOD
- International Fund for Agricultural Development (IFAD)
- Kashgar University CHINA

National


- Planning & Development Department, Government of GB
- Forests and Wildlife & Department Government of GB
- Agriculture, Livestock & Fisheries Department, Government of GB
- Tourism, Sports, Culture and Youth Affairs Government of GB
- Labour, Industries and Minerals, Government of GB
- Ministry of Climate Change Islamabad
- World Wildlife Fund for Nature (WWF- Pakistan)
- Center for Research on CPEC (KIU-GB)

Karakoram International Uni X
https://www.kiu.edu.pk/page/green-campus

Invitation to 2018 UI GreenMetric World University Ranking on Sustainability

[UI GreenMetric Guideline 2018](#) [GreenMetric Questionnaire](#)

Participation of Karakoram International University in UI GreenMetric World Ranking 2018.




Plantation Day at Main Campus Gilgit

https://www.kiu.edu.pk/cms/wp-content/uploads/2018/10/GreenMetric-Questionnaire_v1_2.pdf

GreenMetric_Questionnaire_ X

https://www.kiu.edu.pk/cms/wp-content/uploads/2018/10/GreenMetric_Questionnaire_v1_2.pdf

University Name
Date of Establishment
Address
Longitude Latitude
Web Address
Region (Based on region classification)
Rector / President / Vice Chancellor of University
Sustainability Director
Person in Charge
PIC/Sustainability Director e-mail address
Partnership on Sustainability
a. Network:
1. Local (please specify) 2. Regional (please specify) 3. International (please specify)
b. Partner :
1. Government 2. Community 3. Educational Institution



Rev. 18

No	Points	CRITERIA	INDICATIVE PERFORMANCE MEASURE					Evidence
1	1500	Setting and Infrastructure (SI)						
1.1.		Type of higher education institution	[1] Comprehensive	[2] Specialized higher education institution				
1.2.		Climate	[1] Tropical wet	[2] Tropical wet and dry	[3] Semiarid	[4] Arid	[5] Mediterranean	
1.3.		Number of campus sites	Provide number					Yes
1.4.		Main Campus Setting	[1] Rural	[2] Suburban	[3] Urban	[4] In city center	[5] High rise building	Yes
1.5.		Total main campus area (m ²)	Provide number					Yes
1.6.		Total main campus ground floor area of buildings (m ²)	Provide number					
1.7.		Total main campus buildings area (m ²)	Provide number					
1.8.	SI1	300 The ratio of open space area towards total area	[1] < 1%	[2] 1% - 70%	[3] > 70% - 85%	[4] > 85% - 92%	[5] > 92%	
1.9.	SI2	200 Total area on campus covered in forest (%)	[1] < 1%	(provide total area in meter square)	[4] > 9 - 22%	(provide total area in meter square)		
			[2] 1 - 2%	(provide total area in meter square)	[5] > 22%	(provide total area in meter square)	Yes	
			[3] > 2 - 9%	(provide total area in meter square)				

Green Campus

Horticulture Society And Youth Parliament Organized Cleanliness Drive To Remove Plastic From The Campus

روزنامہ دین جہرات 29 نومبر 2018ء

در آئی یومیں یوم اصفائی کا انعقاد طلبہ طالبات کی شرکت سے

قراقرم انٹرنیشنل یونیورسٹی کے وائس چانسلر پروفیسر ڈاکٹر عطاء اللہ شاہ کی خصوصی ہدایت پر یوم صفائی منایا گیا۔ مقصدی طور پر یوم اصفائی کے تحت اپنے ارد گرد کے ماحول کو صاف و سترا رکھنے کے حوالے سے آگاہی دلا گیا تھا۔

گفت (پ) قراقرم انٹرنیشنل یونیورسٹی کے وائس چانسلر ڈاکٹر عطاء اللہ شاہ نے یوم اصفائی کے تحت اپنے ارد گرد کے ماحول کو صاف و سترا رکھنے کے حوالے سے آگاہی دلا گیا تھا۔ یوم اصفائی کے تحت اپنے ارد گرد کے ماحول کو صاف و سترا رکھنے کے حوالے سے آگاہی دلا گیا تھا۔

یوم اصفائی

یوم اصفائی کے تحت اپنے ارد گرد کے ماحول کو صاف و سترا رکھنے کے حوالے سے آگاہی دلا گیا تھا۔ یوم اصفائی کے تحت اپنے ارد گرد کے ماحول کو صاف و سترا رکھنے کے حوالے سے آگاہی دلا گیا تھا۔

ہم مٹائی کے اقسام پر ڈائریکٹریں تیار کرنا۔ ہم
 عظیم اکثریت و ریٹائرڈ ڈائریکٹریں تیار کرنے کے لئے مٹائی میں
 شریک رضا کاروں سے خطاب کرتے ہوئے کہا کہ پڑھا
 کما چھوٹی معاشرے میں شعور و آگاہی دلا سکتا ہے
 ہم مٹائی میں شریک کام رضا کار کا قابل تحریف ہیں
 آپ کی محنتوں سے پودوں کی کھسک و تحرقا ہائے میں
 مدد ملے گی۔ انہوں نے ہم مٹائی میں شریک کام
 رضا کاروں کو تحلیف دینے کا اعلان بھی کیا۔

روزنامہ "گلگت گلگت (گلگت بلتستان) (4) جمعرات 29 نومبر 2018ء



گلگت گلگت میں ایک ایئر ری ایبل کے تحت مٹائی میں شریک ہیں

روزنامہ "اسلام گلگت گلگت بلتستان" (3) (4) جمعرات 29 نومبر 2018ء

واکس چائٹلر ڈاکٹر عطا اللہ شاہ کی
ہدایت پر KIU میں یوم مٹائی کا انعقاد
 گلگت (پ) رپورٹر: ڈاکٹر عطا اللہ شاہ کی ہدایت
 ہائے چائٹلر ڈاکٹر عطا اللہ شاہ کی ہدایت
 یوم مٹائی میں شریک کام رضا کار کا قابل تحریف ہیں
 آپ کی محنتوں سے پودوں کی کھسک و تحرقا ہائے میں
 مدد ملے گی۔ انہوں نے ہم مٹائی میں شریک کام
 رضا کاروں کو تحلیف دینے کا اعلان بھی کیا۔

23
 گلگت بلتستان یونیورسٹی میں جمعہ کے رضا کاروں
 نے گھر پر حرکت کی، ہم مٹائی میں شریک کام رضا کاروں
 کی ہدایت پر KIU میں یوم مٹائی کا انعقاد
 ڈاکٹر عطا اللہ شاہ کی ہدایت پر KIU میں یوم مٹائی کا انعقاد

روزنامہ "ریپر" گلگت بلتستان (3) جمعرات 29 نومبر 2018ء
واکس چائٹلر کی ہدایت پر KIU میں یوم مٹائی کا انعقاد

پڑھا کما چھوٹی معاشرے میں شعور و آگاہی پھیلا سکتا ہے
 گلگت (پ) رپورٹر: ڈاکٹر عطا اللہ شاہ کی ہدایت پر KIU میں یوم مٹائی کا انعقاد
 ڈاکٹر عطا اللہ شاہ کی ہدایت پر KIU میں یوم مٹائی کا انعقاد
 ڈاکٹر عطا اللہ شاہ کی ہدایت پر KIU میں یوم مٹائی کا انعقاد

37
 گلگت بلتستان یونیورسٹی میں جمعہ کے رضا کاروں
 نے گھر پر حرکت کی، ہم مٹائی میں شریک کام رضا کاروں
 کی ہدایت پر KIU میں یوم مٹائی کا انعقاد
 ڈاکٹر عطا اللہ شاہ کی ہدایت پر KIU میں یوم مٹائی کا انعقاد

روزنامہ بادشاہ۔۔۔۔۔29 نومبر 2018ء

کے آئی یو میں یوم صفائی کا انعقاد، فیکلٹی و طلبہ کی شرکت

آپ کی محنت سے یونیورسٹی کو صاف و ستر بنا نے میں مدد ملے گی، میر تقی میر
 گلگت (خصوصی رپورٹ) قرآنم انٹرنیشنل یونیورسٹی کی صوبائی واپسیت پر یوم صفائی منایا گیا۔ جس میں یونیورسٹی
 یونیورسٹی کے ہاسٹل پرائیمر ڈائریکٹر عطا اللہ شاہ کی فیکلٹی، ہائر ایجوکیشن سوسائٹی، (دینی مطب 77 جیلز نمبر 23)

23 یوم صفائی

یوم پارٹنر گلگت بھٹستان، یوم فورم، یوم سٹوڈنٹس گلگت کے
 رضا کاروں نے بھر پور شرکت کی۔ یوم صفائی منانے کا
 مقصد یومین وکریں نہیں کے تحت اپنے ارد گرد کے ماحول
 کو صاف و ستر رکھنے کے حوالے سے آگاہی دلانا
 تھا۔ ہاسٹل پرائیمر کی واپسیت کی روٹی میں یوم صفائی کے
 کوآرڈینیٹر فریڈا اینڈ انگریج کے اسٹنٹ پروفیسر
 سعادت شیر خان، یونیورسٹی آفیسر مہربان نے جن کی
 سربراہی میں ہائر ایجوکیشن سوسائٹی، یوم پارٹنر گلگت
 بھٹستان، یوم فورم، یوم سٹوڈنٹس گلگت کے رضا کاروں نے میں
 کیس میں صفائی کی۔ یوم صفائی کے اختتام پر ڈائریکٹر
 جنرل کوآرڈینیٹر میر تقی میر یومین وکریں ڈائریکٹر مہربان
 لون نے صفائی میں شرکت کرنے والوں سے خطاب کرتے
 ہوئے کہا کہ یہ سماج کی ساری سعادتوں سے محروم کوئی
 دلاست ہے۔ یوم صفائی میں شرکت تمام رضا کار قابل
 تعریف ہیں، آپ کی محنتوں سے یونیورسٹی کو صاف و ستر
 بنانے میں مدد ملے گی۔ انہوں نے یوم صفائی میں شرکت
 کرنے والوں کو گلے ملنے کا اعلان بھی کیا۔

روزنامہ "بیدار" گلگت بھٹستان (3) جمرات 29 نومبر 2018ء



گلگت سٹی یومین وکریں نے یومین وکریں کے تحت یوم صفائی میں شرکت کیا

ہاسٹل پرائیمر ڈائریکٹر عطا اللہ شاہ کی واپسیت پر KIU میں یوم صفائی کا انعقاد

فیکلٹی و طلبہ طالبات کی شرکت، مقصد ماحول کو صاف و ستر رکھنے کے حوالے سے آگاہی دلانا
 گلگت (پ) قرآنم انٹرنیشنل یونیورسٹی کے
 ہاسٹل پرائیمر ڈائریکٹر عطا اللہ شاہ کی صوبائی واپسیت
 پر یوم صفائی منایا گیا۔ جس میں یونیورسٹی
 سوسائٹی، یوم پارٹنر گلگت بھٹستان، یوم فورم، یوم سٹوڈنٹس
 گلگت کے رضا کاروں نے بھر پور شرکت کی۔ یوم صفائی
 منانے کا مقصد یومین وکریں نہیں کے تحت اپنے ارد گرد کے ماحول
 کو صاف و ستر رکھنے کے حوالے سے آگاہی دلانا
 تھا۔ ہاسٹل پرائیمر کی واپسیت کی روٹی میں یوم صفائی کے
 کوآرڈینیٹر فریڈا اینڈ انگریج کے اسٹنٹ پروفیسر
 سعادت شیر خان، (دینی مطب 77 جیلز نمبر 23)

22 نومبر

یونیورسٹی آفیسر مہربان نے جن کی سربراہی میں ہائر ایجوکیشن
 سوسائٹی، یوم پارٹنر گلگت بھٹستان، یوم فورم، یوم سٹوڈنٹس
 گلگت کے رضا کاروں نے میں کیس میں صفائی کی۔ یوم صفائی کے
 اختتام پر ڈائریکٹر جنرل کوآرڈینیٹر میر تقی میر یومین وکریں
 ڈائریکٹر مہربان نے صفائی میں شرکت کرنے والوں سے خطاب کرتے
 ہوئے کہا کہ یہ سماج کی ساری سعادتوں سے محروم کوئی دلاست
 ہے۔ یوم صفائی میں شرکت تمام رضا کار قابل تعریف ہیں، آپ
 کی محنتوں سے یونیورسٹی کو صاف و ستر بنانے میں مدد ملے گی۔
 انہوں نے یوم صفائی میں شرکت کرنے والوں کو گلے ملنے کا اعلان
 بھی کیا۔

قرآنم یونیورسٹی میں یوم صفائی کا انعقاد، فیکلٹی و طلبہ کی شرکت

گلگت (پ) قرآنم انٹرنیشنل یونیورسٹی کے
 ہاسٹل پرائیمر ڈائریکٹر عطا اللہ شاہ کی صوبائی واپسیت پر یوم صفائی
 منایا گیا۔ جس میں یونیورسٹی سوسائٹی، یوم پارٹنر گلگت بھٹستان،
 یوم فورم، یوم سٹوڈنٹس گلگت کے رضا کاروں نے بھر پور شرکت
 کی۔ یوم صفائی منانے کا مقصد یومین وکریں نہیں کے تحت اپنے
 ارد گرد کے ماحول کو صاف و ستر رکھنے کے حوالے سے آگاہی
 دلانا تھا۔ ہاسٹل پرائیمر کی واپسیت کی روٹی میں یوم صفائی کے
 کوآرڈینیٹر فریڈا اینڈ انگریج کے اسٹنٹ پروفیسر سعادت شیر
 خان، (دینی مطب 77 جیلز نمبر 37)

37 بقیہ

ماحول کو صاف و ستر رکھنے کے حوالے سے آگاہی دلانا
 تھا۔ ہاسٹل پرائیمر کی واپسیت کی روٹی میں یوم صفائی کے
 کوآرڈینیٹر فریڈا اینڈ انگریج کے اسٹنٹ پروفیسر سعادت شیر
 خان، یونیورسٹی آفیسر مہربان نے جن کی سربراہی میں ہائر ایجوکیشن
 سوسائٹی، یوم پارٹنر گلگت بھٹستان، یوم فورم، یوم سٹوڈنٹس
 گلگت کے رضا کاروں نے میں کیس میں صفائی کی۔ یوم صفائی کے
 اختتام پر ڈائریکٹر جنرل کوآرڈینیٹر میر تقی میر یومین وکریں
 ڈائریکٹر مہربان نے صفائی میں شرکت کرنے والوں سے خطاب کرتے
 ہوئے کہا کہ یہ سماج کی ساری سعادتوں سے محروم کوئی دلاست
 ہے۔ یوم صفائی میں شرکت تمام رضا کار قابل تعریف ہیں، آپ
 کی محنتوں سے یونیورسٹی کو صاف و ستر بنانے میں مدد ملے گی۔
 انہوں نے یوم صفائی میں شرکت کرنے والوں کو گلے ملنے کا اعلان
 بھی کیا۔

روزنامہ سوشل انوار 02 ستمبر 2018ء

KIU میں ہزار پلاسٹک کے جامینے پھینک دیے گئے

ذریعہ عظم پاکستان کے ڈسٹریکٹ ایجنٹ ہونے کے منصوبے کے تحت آج KIU میں کیپس میں 10 ہزار پلاسٹک کے جامینے اٹھائے گئے۔ ڈیپٹی ڈائریکٹر ایجنٹ ہونے کے منصوبے کے تحت آج KIU میں کیپس میں 10 ہزار پلاسٹک کے جامینے اٹھائے گئے۔ ڈیپٹی ڈائریکٹر ایجنٹ ہونے کے منصوبے کے تحت آج KIU میں کیپس میں 10 ہزار پلاسٹک کے جامینے اٹھائے گئے۔

پندرہ سٹیٹین

ہونے کے منصوبے کے تحت آج KIU میں کیپس میں 10 ہزار پلاسٹک کے جامینے اٹھائے گئے۔ ڈیپٹی ڈائریکٹر ایجنٹ ہونے کے منصوبے کے تحت آج KIU میں کیپس میں 10 ہزار پلاسٹک کے جامینے اٹھائے گئے۔ ڈیپٹی ڈائریکٹر ایجنٹ ہونے کے منصوبے کے تحت آج KIU میں کیپس میں 10 ہزار پلاسٹک کے جامینے اٹھائے گئے۔



گفتہ کیو ایچ ڈی ایجنٹ ہونے کے منصوبے کے تحت آج KIU میں کیپس میں 10 ہزار پلاسٹک کے جامینے اٹھائے گئے۔

گفتہ کیو ایچ ڈی ایجنٹ ہونے کے منصوبے کے تحت آج KIU میں کیپس میں 10 ہزار پلاسٹک کے جامینے اٹھائے گئے۔ ڈیپٹی ڈائریکٹر ایجنٹ ہونے کے منصوبے کے تحت آج KIU میں کیپس میں 10 ہزار پلاسٹک کے جامینے اٹھائے گئے۔

پندرہ سٹیٹین

ہونے کے منصوبے کے تحت آج KIU میں کیپس میں 10 ہزار پلاسٹک کے جامینے اٹھائے گئے۔ ڈیپٹی ڈائریکٹر ایجنٹ ہونے کے منصوبے کے تحت آج KIU میں کیپس میں 10 ہزار پلاسٹک کے جامینے اٹھائے گئے۔ ڈیپٹی ڈائریکٹر ایجنٹ ہونے کے منصوبے کے تحت آج KIU میں کیپس میں 10 ہزار پلاسٹک کے جامینے اٹھائے گئے۔



گفتہ کیو ایچ ڈی ایجنٹ ہونے کے منصوبے کے تحت آج KIU میں کیپس میں 10 ہزار پلاسٹک کے جامینے اٹھائے گئے۔

Clean And Green Pakistan Movement



clean and green Pakistan movement

Karakoram International University has successfully celebrated the clean and green Pakistan movement on 23rd October 2018 in collaboration with Local Government, Municipal Corporation and Gilgit Baltistan Environmental Protection Agency. All the students, Faculty, staff in the leadership of Vice Chancellor cleaned the campus and University road. The university has decided to start a movement to clean the city in collaboration with the local government in near future.

to clean the city in collaboration with the local government in near future.



Clean Green Pakistan

روزنامہ "زہیر" گلگت بلتستان (3) پدم 24 اکتوبر 2018ء



روزنامہ ”ترہیز“ گلگت بلتستان (3) پمچہ 24 اکتوبر 2018ء



گلگت، کے آئی کیو میں صاف سبز پاکستان کم کے دوران داس چائٹر پر پمچہ ڈاکٹر عطا مہاشاد اور کوشش کنندگان نے صاف دھواں مٹانی کم میں حصہ لیا ہے۔

سکرائی یو پیو صاف سبز پاکستان مہم کا آغاز

ہمس آفری اور داغ کی آج صاف سبز پاکستان کیلئے کام کرنے کی ضرورت ہے۔ اسلام میں مٹانی اور صاف کاری کا حکم ہے۔ اس چائٹر کم کی کامیابی کیلئے عطا مہاشاد اور دیگر اسکول کے بچوں نے مٹانی کا خیال رکھا۔ کم سب کی مٹانی اور صاف کاری کے لئے گلگت اور پمچہ کا خطاب ہے۔

گلگت، کے آئی کیو میں صاف سبز پاکستان کم کے دوران داس چائٹر پر پمچہ ڈاکٹر عطا مہاشاد اور کوشش کنندگان نے صاف دھواں مٹانی کم میں حصہ لیا ہے۔

پمچہ ڈاکٹر عطا مہاشاد اور دیگر اسکول کے بچوں نے مٹانی کا خیال رکھا۔ کم سب کی مٹانی اور صاف کاری کے لئے گلگت اور پمچہ کا خطاب ہے۔

Clean Green Pakistan



گلگت، کے آئی کیو میں صاف سبز پاکستان کم کے دوران داس چائٹر پر پمچہ ڈاکٹر عطا مہاشاد اور کوشش کنندگان نے صاف دھواں مٹانی کم میں حصہ لیا ہے۔

Clean Green Pakistan

Cleanliness Day



Karakoram International Uni | Tere Bina Zindagi Se Koi

https://www.kiu.edu.pk/page/green-campus
Click here for more details

World Food Day

Food and Agriculture of the Organization United Nations | SUSTAINABLE DEVELOPMENT GOALS | CELEBRATING 40 YEARS IN PAKISTAN | 16 October 2018 World Food Day

Our Actions are our Future.

A **#ZeroHunger** world by 2030 **is possible.**

Working for #ZeroHunger

**Department of Agriculture and Food Technology
Karakoram International University Gilgit**

Banner world food day

Karakoram International Uni | Tere Bina Zindagi Se Koi

https://www.kiu.edu.pk/page/green-campus

 UNIVERSITAS INDONESIA
Veritas, Probitas, Justitia

Kampus Sekeloa Jl. Sekeloa Raya No. 4, Jakarta 10430
Kampus Depok Kampus Universitas Indonesia Depok 16424
Telp. 02-21-7987-2007/2008/1918 Fax. 02-21-7984-0960
Email: pusan@ui.ac.id | www.ui.ac.id

Our Reference :  /UN2.R/OTL.00/2018 May 3, 2018

To:
Engr. Prof. Dr. Attaullah Shah
Vice Chancellor
Karakoram International University

Subject: Invitation to 2018 UI GreenMetric World University Rankings on Sustainability

Dear, Vice Chancellor Engr. Prof. Dr. Attaullah Shah,
It is my great pleasure to invite your esteemed university to participate in our 2018 UI GreenMetric World University Rankings.

Since 2010, UI GreenMetric World University Rankings has ranked universities worldwide according to six indicators: setting and infrastructure, energy and climate change, waste management, water, and transportation, and education. 619 universities from 76 countries were ranked in 2017 (<http://greenmetric.ui.ac.id/overall-ranking-2017/>). Complementing other University rankings which can be found on IREG Observatory on Academic Ranking and Excellence, UI GreenMetric is the first and only ranking that has established a Voluntary Standard for improving university infrastructure and action towards sustainable campuses worldwide.

Currently, we have 25 active national coordinators in Middle East, Asia, South America and Europe. In 2017, we have held an international and 9 national workshops. In this workshop, Universities can share their best practices and learn from each other experience and current development.

This year the main theme is "Universities, Impacts, and Sustainable Development Goals (SDGs)". Thus, our questionnaire looks in more details on efforts and programs to improve sustainability on campus.

UI GreenMetric World University Rankings is an important initiative to promote sustainability in higher education institutions globally. By participating, you will be able to measure your sustainability policy and performance and compare them with other institutions on the ranking. You can also share your experience and best practices in the issues of sustainability with other universities in our network. Most importantly, this ranking can serve as a platform for future cooperation among higher education institutions to make our world a better place.

Participating in UI GreenMetric is simple and free as the submission is done on line. There is no fee for participating.

Karakoram International Uni x Tere Bina Zindagi Se Koi x
← → C <https://www.kiu.edu.pk/page/green-campus> ☆ M ☰

Subject: Invitation to 2018 UI GreenMetric World University Rankings on Sustainability

Dear, Vice Chancellor Engr. Prof. Dr. Attajillah Shah,
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Participating in UI GreenMetric is simple and free as the submission is done on line. There is no fee for participating.

Please email any questions you may have to Ms. Arny Imanda at greenmetric@ui.ac.id. We do hope your esteemed institution will be able join us in the 2018 survey.

Thank you for your kind attention.
Yours sincerely,




Prof. Dr. Ir. Muhammad Anis, M. Met
Rector of Universitas Indonesia


Karakoram International Uni x Tere Bina Zindagi Se Koi x
← → C <https://www.kiu.edu.pk/page/green-campus> ☆ M ☰

[UI GreenMetric Guideline 2018](#) [GreenMetric Questionnaire](#)

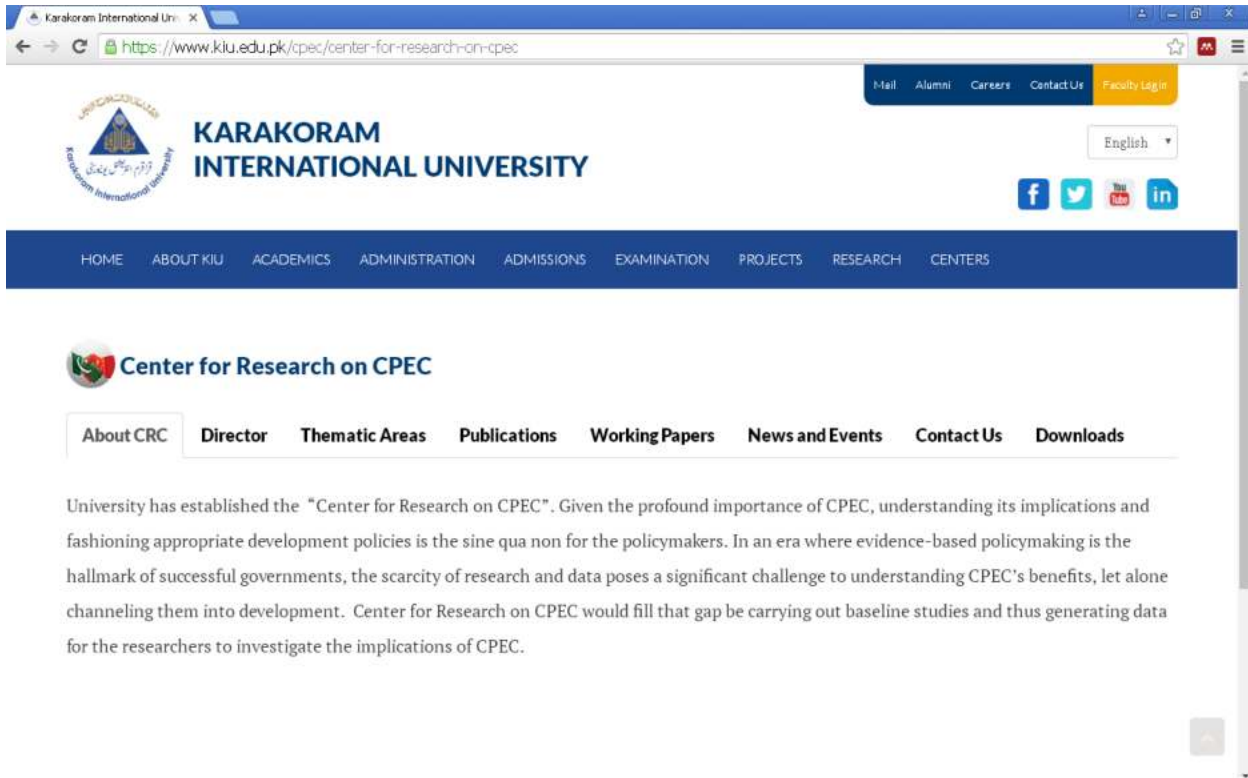
Participation of Karakoram International University in UI GreenMetric World Ranking 2018.



Plantation Day at Main Campus Gilgit







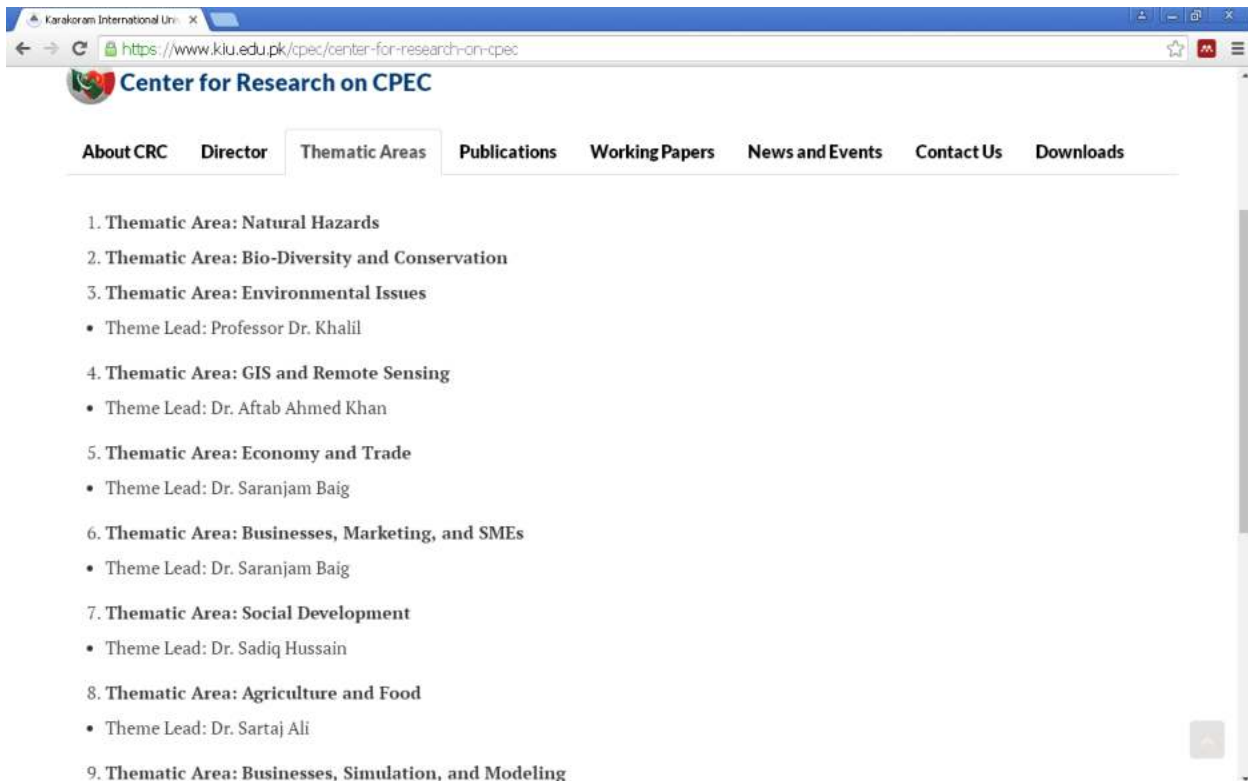
Karakoram International University

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Center for Research on CPEC

About CRC Director Thematic Areas Publications Working Papers News and Events Contact Us Downloads

University has established the "Center for Research on CPEC". Given the profound importance of CPEC, understanding its implications and fashioning appropriate development policies is the sine qua non for the policymakers. In an era where evidence-based policymaking is the hallmark of successful governments, the scarcity of research and data poses a significant challenge to understanding CPEC's benefits, let alone channeling them into development. Center for Research on CPEC would fill that gap by carrying out baseline studies and thus generating data for the researchers to investigate the implications of CPEC.



Karakoram International University

Center for Research on CPEC

About CRC Director Thematic Areas Publications Working Papers News and Events Contact Us Downloads



- Thematic Area: Natural Hazards**
- Thematic Area: Bio-Diversity and Conservation**
- Thematic Area: Environmental Issues**
 - Theme Lead: Professor Dr. Khalil
- Thematic Area: GIS and Remote Sensing**
 - Theme Lead: Dr. Aftab Ahmed Khan
- Thematic Area: Economy and Trade**
 - Theme Lead: Dr. Saranjam Baig
- Thematic Area: Businesses, Marketing, and SMEs**
 - Theme Lead: Dr. Saranjam Baig
- Thematic Area: Social Development**
 - Theme Lead: Dr. Sadiq Hussain
- Thematic Area: Agriculture and Food**
 - Theme Lead: Dr. Sartaj Ali
- Thematic Area: Businesses, Simulation, and Modeling**

Karakoram International University

https://www.kiu.edu.pk/cpec/center-for-research-on-cpec

- 6. **Thematic Area: Businesses, Marketing, and SMEs**
 - Theme Lead: Dr. Saranjam Baig
- 7. **Thematic Area: Social Development**
 - Theme Lead: Dr. Sadiq Hussain
- 8. **Thematic Area: Agriculture and Food**
 - Theme Lead: Dr. Sartaj Ali
- 9. **Thematic Area: Businesses, Simulation, and Modeling**
 - Theme Lead: Dr. Asad Ullah
- 10. **Thematic Area: ICT**
 - Theme Lead: Dr. Sabit Rahim
- 11. **Thematic Area: Silk Route: Culture, Heritage**
 - Theme Lead: Dr. Tasawar Baig
- 12. **Thematic Area: Conflicts and Indigenous Rights**
 - Theme Lead: Mr. Sultan Abbas

Useful Links
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Karakoram International University

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Food and Agriculture of the Organization United Nations

SUSTAINABLE DEVELOPMENT GOALS

CELEBRATING 40 YEARS IN PAKISTAN

16 October 2018
World Food Day

Our Actions are our Future.

A **#ZeroHunger** world by 2030 is possible.

Working for #ZeroHunger

The World Food Day will be celebrated on 16th October 2018 in KIU Main-Campus [View Details](#)

Karakoram International University

HEC Introduces Green...html 152452eo.pdf Inclusive and Sustaina...pdf How sustainable are o...html Pakistan ... Sustainab...html Show all downloads...

The screenshot shows the Karakoram International University website. At the top, there is a navigation bar with icons and labels for 'KIU Libraries', 'Green Campus', 'ICETEM5-2018', 'Academic Calendar', 'Notice Board', and 'Results'. Below this, the main content area is divided into three columns: 'Latest News', 'Recent Research', and 'Upcoming Events'. The 'Latest News' column contains four news items with their respective dates. The 'Recent Research' column contains four research entries with author names. The 'Upcoming Events' column is currently empty. At the bottom, there is a taskbar with several open browser tabs and a download bar.

Karakoram International University
https://www.kiu.edu.pk

KIU Libraries **Green Campus** **ICETEM5-2018** **Academic Calendar** **Notice Board** **Results**

Latest News

- White Cane Day Celebrated at KIU Ghizer Campus. 21 hours ago
- MoU signed between KIU and CRDO at Islamabad. 5 days ago
- First Plantation Campaign Started at KIU Diarner Campus. 6 days ago
- Seminar on "Social Media role in development of Socialization" by BS Students. 1 week ago

Recent Research

- Abbas, S., Tabassum, R., Khan, M. Z., Khan, B., Hussain, S., Khan, G. & Awa...
- Zhijie Wang 1, Wengiang Xie 2, Furong Ju 2, Akbar Khan 2, Shengxiang Zh...
- J. Li, Y. W. Wang, J. Yi, I. Hussain, R. Li, B. Zhang, G. Wang, Journal o...
- Muhammad Ismail, Sajjad Ali, Hira Fatima Abbas, Tooba Mahboob, Khalil Ahmed...
- Khalil Ahmed, Zahida Jahan, Imran Raja, Ishfaq Hussain, Mehtab Jan, Maisoo...

All Publications

HEC Introduces Green...html | 152452eo.pdf | Inclusive and Sustaha...pdf | How sustainable are o...html | Pakistan -, Sustahab...html | show all downloads...

Karakoram International Uni X
https://www.kiu.edu.pk/news/mou-signed-between-kiu-and-crdo-at-islamabad

MoU signed between KIU and CRDO at Islamabad

KIU signed a MoU with community research and development organization CRDO for collaborative activities in the field of Tourism, Environmental Sciences, Forestry, Biology, Earth Science, Disaster Management and Social Sciences. Prof. Dr. Attaullah Shah, Vice Chancellor KIU and CEO of CRDO were the signatory.

It was also attended by Dr. Nasir Mehmood Additional Registrar PEC, Hafiz Ehsan ul Haq Member Planning CDA. Mr. Imran Inam from CRDO signed MoU. KIU and CRDO will work together in the areas of Entrepreneurship, mineral processing, construction industry, Social Sector Development, Women Empowerment, Hospitality & Tourism Management.




HEC Introduces Green...html - 152452eo.pdf - Inclusive and Sustaina...pdf - How sustainable are o...html - Pakistan - Sustahab...html - Show all downloads...

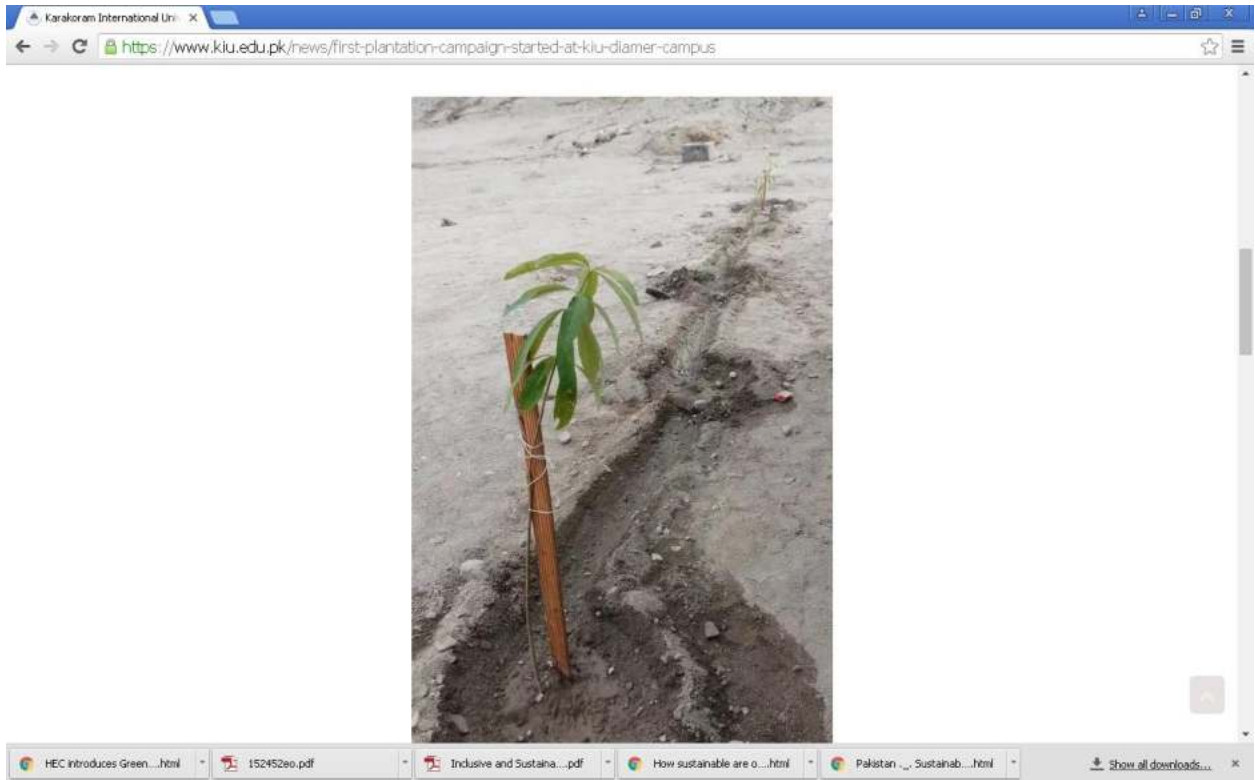
Karakoram International Uni X
https://www.kiu.edu.pk/news/first-plantation-campaign-started-at-kiu-diamer-campus

First Plantation Campaign Started at KIU Diamer Campus

First Tree Plantation Campaign started at Karakoram International University Diamer Campus, Chilas with an aim to create awareness among students about the importance of trees and to highlight the significance of green and healthy environment. We are highly thankful to Conservator Forest, Diamer & Astore Division for granting of 6500 trees to the campus. 200 trees have already been planted.



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Vision

The Karakoram International University is a leading institution of higher learning committed to social development and evolution of peaceful and pluralistic societies in the mountainous areas of Pakistan and geographically similar regions elsewhere.

Mission

To promote human development at all stages of life; through growth, evaluation, synthesis, dissemination and application of knowledge, and provide a service that values sustainable, humanitarian, and economic development of the environment.



Main Campus

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Karakoram International University

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Mission

To promote human development at all stages of life; through growth, evaluation, synthesis, dissemination and application of knowledge, and provide a service that values sustainable, humanitarian, and economic development of the environment.


Values

The University is committed to uphold and promote:

- Excellence and quality in all its functions including scholarship in its broader aspects, careful management and ethical considerations.
- Acceptance of diversity and pluralism, with particular regard to gender, race, color, beliefs, culture and religion.
- Holistic development of its students, faculty and staff as managers and critical users of knowledge and human resource.
- A culture of inquiry, creativity, critical thinking, and free exchange of thought.
- Relevance of its functions to the goals of development of individuals, society and environment.



Main Campus




TamTam

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https://www.kiu.edu.pk/mission/karakoram-international-university-2 environment.

Strategy

- Recruit and retain highly qualified faculty who are committed to deliver the expectations outlined in the vision and mission.
- Ensure merit and quality in the admission of students.
- Develop and deliver knowledge content that is relevant to the local context; that capitalizes on local comparative advantages.
- Promote interactive and student centred learning.
- Develop a culturally symbolic (architecture) and inviting campus environment.
- Forge partnerships and networks with global knowledge networks for exchange of relevant knowledge, faculty, and student.
- Undertake continued faculty and staff development to maintain excellence in quality.
- Promote multidisciplinary integration of educational programs in order to enhance the versatility and entrepreneurship of its studies.
- Facilitate "access" through "distributive" learning and "decentralization" (KIU is a multi campus University).
- Seek multiple avenues for resource development.



Administration Block




Bio Safty Lab



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6- NUST

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NUST
NUST organised a special event for Milad-un-Nabi (SAW), on Wednesday Nov 21, 2018. #NUST will also be organising a central Seerat-un-Nabi Conference at the Jinnah Auditorium, H-12 campus in the month of Rabi-ul-Awal, the date will be announced soon. #NUSTcelebrates #MiladunNabi







NUST
Via NUST Environment Club

Water Conservation Awareness Activity was conducted at Centaurus Mall, Islamabad on 14th November, 2018. The awareness activity was executed successfully with the full participation of the NHC members.


Album Link:
facebook.com/30903347920994



NUST
Via NUST Entrepreneurs Club

NUST Entrepreneurs Club presents an interactive session focused on productivity in projects. A live example of Software Development Project will be discussed in detail.

Event Page:
facebook.com/events/1135393



NUST
Via @AlumniNUST

It's time to sign up, gain experience and become a part of the team behind the biggest event in NUST!

Click the link below and apply! goo.gl/forms/t0b1tWPR1... #AlumniNUST #NUSTians #NUSTcalling #AlumniNetwork #AlumniConnect #NUSTalgia


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News


CELEBRATING 10 YEARS OF RCMS OCT 31, 2018



Research Center for Modeling and Simulation (RCMS)'s 10 year completion - celebrated at NUST.

From its humble start in a room in F-11, to having one of the fastest ...
Thursday, November 22, 2018


WATER CONSERVATION AWARENESS WALK BY NUST



Water Awareness Stalls installed at Blue Area, F-7 and F-10 Markaz by NUST Students.


Against the backdrop of worsening water crisis in Pakistan and prompte ...
Thursday, November 22, 2018

GLOBAL IAESTE DAY AT NUST OCTOBER 2018



NUST Placement Office (NPO) celebrated Global IAESTE Day at IESE Semin ...
Thursday, November 22, 2018

NUST TOP UNIVERSITY IN PAKISTAN




As per QS Asian University Rankings 2019, NUST stands at #87 in Asian Universities.

NUST attains 87th position in Asian University Rankings, retains No 1 ...
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4th JAMAPUNJI INTER-UNIVERSITY MOCK TRADING COMPETITION

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4th Jamapunji Inter-University Mock Trading Competition
Monday, September 17, 2018
Under the umbrella of landmark MoU signed between Securities and Exchange Commission of Pakistan (SCEP) and Higher Education Commissio ...

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- 10th Selection List of BS Applied Biosciences uploaded...
- MS Computational Science & Engg (RCMS) Admission Spring - 2019 (Open)...
- PHD Admission Spring 2019 (Closed) ...

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News


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Thursday, November 22, 2018

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Upcoming Events



NUST SPORTS ACTIVITIES 2018-2019

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NUST Sports Activities 2018-2019
Tuesday, October 16, 2018
NUST would be organising following sports activities (2018-2019) for H-12 Campus and Military Colleges students

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PAKISTAN CHAPTER OF THE TALLOIRES NETWORK (PCTN)

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"Make Hearts the Pivots of Compassion and Commitment"
Aliama Iqbal

The Talloires Network
Pakistani Chapter

Strengthening Civic Roles and Social Responsibilities of Higher Education & Building a Global Movement of Engaged Universities.

WHAT IS PCTN?
Origin and Development At the beginning of this millennium it was becoming clear that there was a global trend toward greater engagement of universities with their communities, characterized by systemic efforts to mobilize the expertise and personal power of these institutions to address pressing societal needs. However, there was limited international coordination and exchange on such issues among the he ... read more

SEMINARS & CONFERENCES
Islamabad March 30 - Pakistan Chapter of The Talloires Network (PCTN) held its 3rd seminar titled "Role of Universities in Community Development and ... View All

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پانی بچاؤ آگاہی مہم
پانی کی حفاظت، مستقبل کی ضمانت

نیشنل یونیورسٹی آف سائنسز اینڈ ٹیکنالوجی

NUST Environment Club

SCEE SCHOOL OF CIVIL ENVIRONMENTAL ENGINEERING, NUST

www.nust.edu.pk/News/Pages/NUST-holds-Water-Awareness-Walk.aspx

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NUST urges water conservation, safety and health while educating about the imminent threat of water scarcity and the urgency both for individual and collective efforts to convert this disastrous situation into an opportunity. In his message to NUST students, faculty and staff, Lt Gen Naweed Zaman, HI (M), (Retd), Rector NUST, stressed the need for spreading the word to their respective neighbourhoods, asking people to economise on water from its household to commercial usage.

NUST has already advanced to the second tier of its campaign, which aims to awake common people to the looming water crisis. In this context, NUST organised a "Water Conservation Walk" in Islamabad on Tuesday, Oct 30, 2018, which started from 9th Avenue signal on the Jinnah Avenue and culminated near main F-10 roundabout. An overwhelming number of students, faculty and people from different walks of life participated in the water friendly walk. They were holding placards and banners inscribed with "Pani bachana hamara qoumi fareeza hai" (water conservation is our national duty), "Pani k istemal or zian mein farq janlay" (Understand the difference between use & misuse of water), etc. Water Awareness Stalls were installed at various frequently visited spots in Islamabad, including Blue Area, F-7 and F-10 Markaz.

It is worth mentioning that NUST aims to further the on-going campaign by reaching out to at least 100 schools in the twin cities; placing awareness stalls at different public places; distributing flyers and other pertinent literature on water conservation in extended door-to-door drives.



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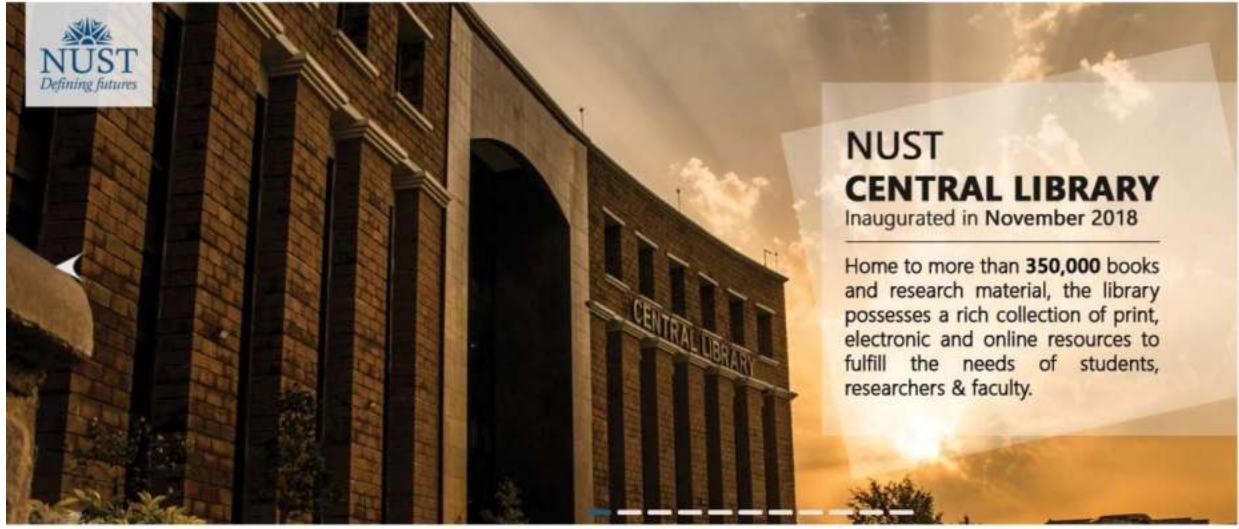
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NUST
CENTRAL LIBRARY
Inaugurated in November 2018

Home to more than **350,000** books and research material, the library possesses a rich collection of print, electronic and online resources to fulfill the needs of students, researchers & faculty.

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5 Million
PKR
TO THE SUPREME COURT & PRIME MINISTER OF PAKISTAN DIAMER-BHASHA & MOHMAND DAMS FUND

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VISION & MISSION

VISION

To evolve NUST into a world class Centre of Excellence among Higher Education Institutions, leading the transformation of Pakistan towards a rapidly developing Knowledge Economy to realise the national objective of a progressive and prosperous country among comity of nations.

MISSION

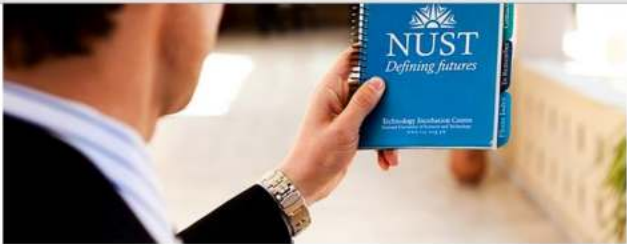
In pursuance of NUST vision, strive to achieve following mission goals:

- Develop NUST as a Comprehensive, Academic and Research-led university with a focus on Creativity, Innovation and Entrepreneurship so as to amicably negotiate Social, Economic and Environmental challenges faced by the country.
- With foundations based on principles of Merit, Transparency and Fair Play, nurture talent by providing equal opportunity to all segments of polity.
- Empower students to develop their full potential, acquiring leadership and social skills, to act as agents of change within the society.

Browser tabs: Vision & Mission, Gazab Ka Hai Din [Full HD]

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- With foundations based on principles of Merit, Transparency and Fair Play, nurture talent by providing equal opportunity to all segments of polity.
- Empower students to develop their full potential, acquiring leadership and social skills, to act as agents of change within the society.
- Improve global visibility by enhancing mutually beneficial linkages with international organisations and partner universities.
- Strengthen NUST financially to enable the university to achieve its goals by raising awareness among local and international Pakistani diaspora including Alumni base around the world.
- Ensure conducive learning and working environment for students and staff at par with international standards.

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Browser tabs: Rector's Message, Faz ahmed Faz - woh jis

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RECTOR'S MESSAGE

It is indeed a privilege to lead Pakistan's most vibrant institution, which shines as a beacon of excellence on the horizon of higher education. From a modest beginning with military engineering colleges, NUST has gained towering stature, both at the national level as well as internationally, addressing the needs of a fast changing world. The University main campus continues to expand, both academically and in terms of physical environment, whereas, our commitment to scientific leadership continues to grow unabated. Over the years, NUST has developed a knowledge ecosystem which inspires entrepreneurship and stimulates high-impact research. It is now recognized internationally as a research-led, socially-engaged university, distinguished by its multi-disciplinary programmes and focus on emerging technologies. We have research collaboration with 109 universities worldwide, with 175 faculty members and 76 students studying in foreign universities.

NUST is poised to play a leading role to propel the country into knowledge-driven economy, thus improving the lives of masses and contributing towards betterment of society, through need based innovations, nurturing versatile and creative young minds who have the will and enthusiasm to make a difference and stride confidently into the future as society's torch bearers. The University's future roadmap will be aligned so as to spearhead national efforts to achieve Sustainable Development Goals and Vision 2025 of the Government. The manifestation of this Vision is imbibed in our plans to establish Pakistan's first Science and Technology Park, aimed at transiting the country towards high-tech export oriented economy. God willing, I foresee NUST attaining these sublime objectives by synergizing its strengths in pursuit of its defined vision.

On behalf of my staff and faculty, I invite you to join this elite hub of academic excellence, which provides ideal environment for exploring new frontiers and incubation of innovative ideas.



Lieutenant General Naweed Zaman, HI (M), (Retired)

Networking & Partnerships x Yaar Ko Hamne Ja Bo Je

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NETWORKING & PARTNERSHIPS
In line with one of its strategic thrusts, namely Internationalization and Global Perspective, NUST has developed strong international linkages with foreign universities and institutions of repute. The purpose of these linkages is to encourage a two-way flow of knowledge at minimum expense. This aspect also adds a global perspective to our activities and assists us in remaining current with the latest technological advancements. In most cases, the linkages have gone beyond student and faculty exchanges to active research collaborations.

Find out more:

- [NUST International Office \(NIO\)](#)
- [Industry Academia Linkages \(IAL\)](#)


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NUST IDENTITY



The Book of Knowledge lights up the darkness, though the Vine of Wisdom which bears the two moons and stars facing towards the East and the West, symbolizing the diversity of disciplines and the fruit of knowledge.

The rising sun brings change, hope and enlightenment. It emanates inspiration and from the light of knowledge, four birds take wing from the nests of light, and spread out to the four corners of the world, symbolizing the quest for spiritual gratification through knowledge and wisdom.

The NUST Blue is a color that represents the future. It carries all the characteristics of the color blue, like dignity, grace, freshness, professionalism, prudence and resolve.

NUST Icon NUST Signature

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WELCOME TO NUST CIE

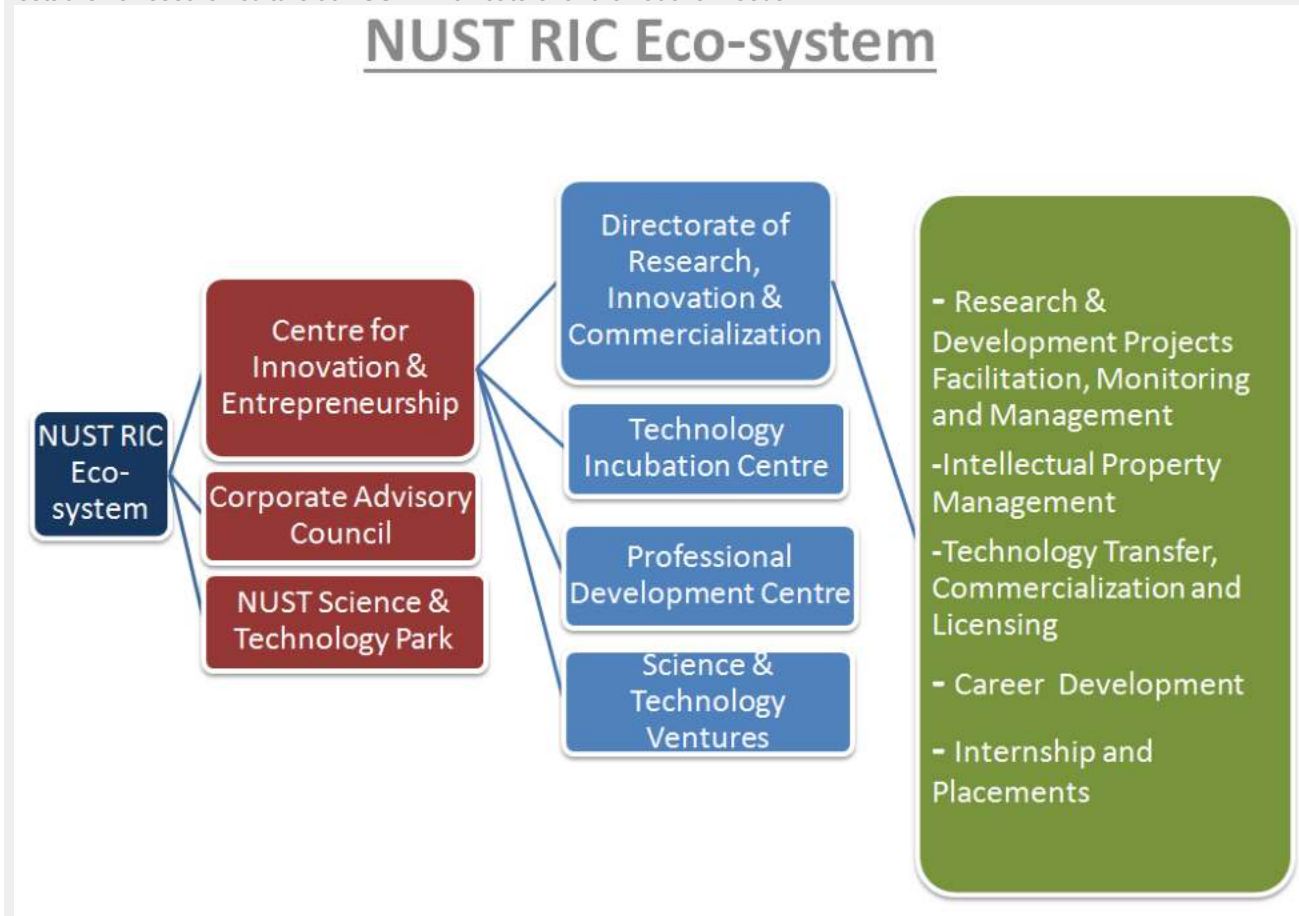
National University of Sciences and Technology (NUST) with the mission “**To develop NUST into comprehensive research led university with a focus on technology, innovation and entrepreneurship**” has devoted significant attention to R&D and its commercialization.

In consonance with this NUST established Center for Innovation and Entrepreneurship (CIE) with an aim to propagate /establish a research culture at NUST which caters for the national needs.

WELCOME TO NUST CIE

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Networking & Partnerships | International Memberships

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 - Industry Academia Linkages

INTERNATIONAL MEMBERSHIPS

Over the years, NUST has attained memberships of a number of prestigious international Associations, that allows us to leverage combined resources for mutual benefit. Needless to say these memberships also grant us invaluable networking opportunities and privileges. Some of the significant international Associations that NUST is proud to be a member of include the following:

- World Technopolis Association
- Science Park & Innovation Center Expert Group
- International Association of Science Parks
- International Presidential Forum of Leading Research Universities
- International Network of Quality Assurance Agencies in Higher Education
- Asia Pacific Quality Network
- Association of Management Development Institutions in South Asia
- International Association of Universities
- Association of Commonwealth Universities
- Talioires Networks
- International Association of University Presidents
- National Business Incubation Association
- Asian Association of Business Incubation
- Asian Pacific Incubator Network
- Infodev - World Bank
- Association of University Technology Managers

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- MAR 07** Meet NUSTian Sara Mansoor, top-seeded tennis player of Pakistan and student of MS Mass Communication at ...

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Networking & Partnerships Clubs & Societies

www.nust.edu.pk/Campus-Life/Student-Affairs/Pages/Clubs-Societies.aspx

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Sports

CLUBS & SOCIETIES

Besides academic excellence, the Nustians display dynamic literary, creative and artistic abilities and aptitude for co-curricular activities. In order to provide them with opportunities to pursue their passion in the company of like-minded individuals, Student Affairs Division is functional under the auspices of Student Affairs Directorate. Deputy Director Student Affairs is the chief coordinator and thus responsible for smooth prevalence of co-curricular activities at the campus. The following central clubs and societies provide students the opportunity to exhibit their talents:

- NUST Bazm-e- Pakistan (NBP)
- NUST Adventure Club (NAC)
- NUST Environment Club (NEC)
- NUST Science Society (NSS)
- NUST Literary Circle (NLC)
- NUST Book Club (NBC)
- NUST Community Service Club(NCSC)
- NUST Dramatic Club (NDC)
- NUST Debating Society (NDS)
- NUST Media Club (NMC)
- NUST Fine Arts Club (NFAC)
- NUST BioReach Society
- NUST Entrepreneurs Club (NEC)
- NUST Leaders Society (NLS)
- NUST Excursion Club (NEC)
- NUST Digital Club (NDC)
- NUST Water Sports Club
- NUST Technical Amusement Club (NTAC)
- NUST Paragliding Club
- NUST Robotics Club (NRC)
- NUST Quiz Club (NQC)
- International Chapter (SCME)
- NUST Trekking Club (NKC)
- NUST GeneUs
- NUST Archery Club (NAC)
- NUST Cultural Club (NCC)
- NUST Fitness Club (NFS)
- NUST Physics and Astronomy (NPA)

Clubs and Societies are assigned to different Institutions, who appoint Faculty Sponsors for Clubs/Societies. Faculty Sponsor has to guide and help office bearers and members of the concerned Club/Society. Email addresses and telephone nos of all Faculty Sponsors are listed below.

www.nust.edu.pk/INSTITUTIONS/Directories/TIC/Pages/default.aspx

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TECHNOLOGY INCUBATION CENTRE (TIC)

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WELCOME TO TIC

The Technology Incubation Centre (TIC) is an initiative of the National University of Sciences and Technology (NUST) to provide a nurturing environment to technology based business ideas to prosper and become viable contributors to our community and economy. This is also an attempt to bring academia and industry closer to each other by providing NUST students and faculty a platform to commercialize their research, final year projects and other technology based business ideas. Business Incubators are nonprofit entities that provide a range of business services in a nurturing and supportive environment. Business incubators differ from other commercial property and serviced offices by providing business s... [read more](#)

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TIC IS NESTLED in the SERENE, LUSH ENVIRONMENT of NUST campus

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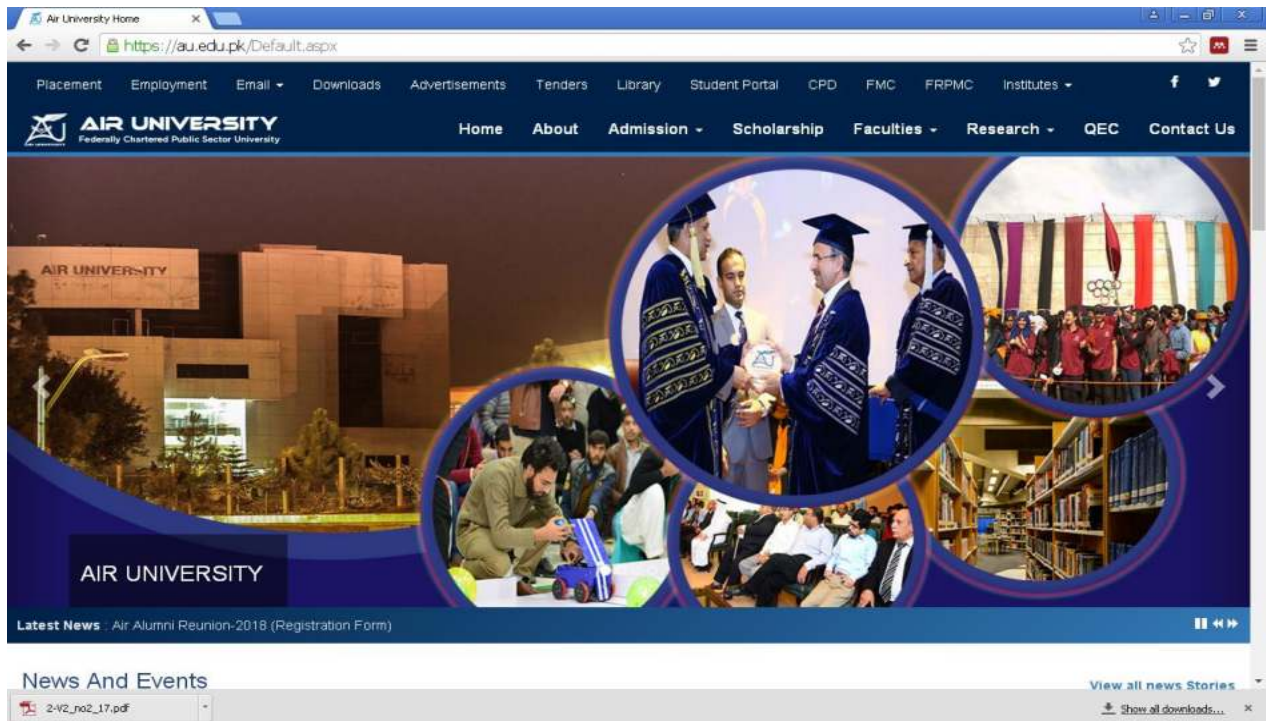
7- Air University

Cutoff date: 8/10/2018

Time : 5 pm

Date first visited: 18/2/2018

Times visited: 15



Air University Home x

← → ↻ <https://au.edu.pk/Default.aspx> ☆


Placement Employment Email Downloads Advertisements Tenders Library Student Portal CPD FMC FRPMC Institutes

AIR UNIVERSITY
Federally Chartered Public Sector University

Home About Admission Scholarship Faculties Research QEC Contact Us

Air University

Donates Rs.2.151 Million for Diamer-Bhasha and Mohmand Dams



AIR UNIVERSITY

Latest News : Fee bills will be available on Monday 04 Feb, 2019 on AU Website / Students Portal. Please pay the bill within given due date

News And Events

[View all news Stories](#)

Zahmi Poetry.jpg images.png DUS2PgUv_400x400.jpg Bebas Shayari.jpg Hiy Shayari.jpg

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Air University Home x

← → ↻ <https://au.edu.pk/Default.aspx> ☆

Latest News : Fee bills will be available on Monday 04 Feb, 2019 on AU Website / Students Portal. Please pay the bill within given due date


News And Events

[View all news Stories](#)




German Ambassador visits Air University

[Click Here...](#)




Air University alumni reunite on campus

[Click Here...](#)



Work Ethics in the light of Seerat un Nabi (s.a.w.)

[Click Here...](#)



Air University Organized CPEC Career Summit

[Click Here...](#)

News/Notification

1 Feb Fee bills will be available on Monday 04 Feb, 2019 on AU Website / Students Portal. Please pay the bill within given due date **NEW**
[Click here to view](#) [Read More >>](#)

18 Jan 2nd Merit List Spring 2019 (Undergraduate Programs) **NEW**
[Click here to view](#) [Read More >>](#)

17 Jan Semester Result Fall 2018 has been announced **NEW**
[Click here to view](#)

Message from Vice Chancellor

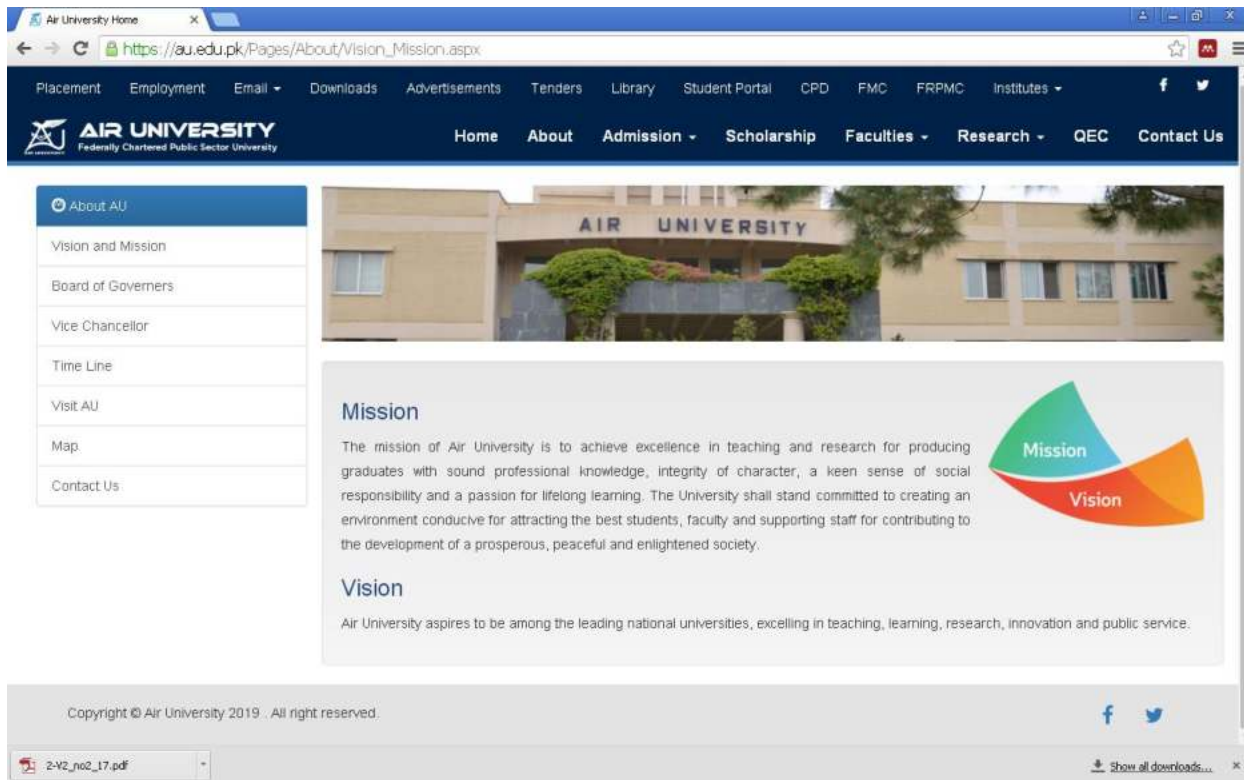
I appreciate your interest in Air University study programmes and assure you that you are making a right choice. As our prospective student, you will find that our campus, located at the foot hills of Margalla Hills in Islamabad, offers enormous and unique opportunities for academic, social, and personal growth.



Air University is a federally chartered public sector university devoted to academic excellence in teaching and scholarship. Its nationally accredited and recognized programmes prepare our undergraduate and

2-Y2_nc2_17.pdf

Show all downloads...



Additional content date: 7/6/2018

Time : 5 pm

Date first visited: 15/1/2018

Times visited: 20

A rephrased change in the mission statement was noted in the vision section of the website of Air University on 7th May, 2018.


Air University Home

https://au.edu.pk/Pages/NewsEvents/NewsEventsDetails.aspx?id=23

Participation in internat...

- Air University Hosts a Visit to Dr. Waseem Haider,....
- Air University students participation in internat....
- Eminent Speaker Dialogue (Ideology of Pakistan in ...
- Eminent Speaker Dialogue (Changing Global Scenari....
- Eminent Speaker Dialogue (Nation Building)....
- English Access Microscholarship Program....
- Eminent Speaker's Dialogue 3rd May 2018....
- Eminent Speakers Dialogue 5th April 2018....
- Air University Convocation - 2018....
- Air University Career Fair 2018....
- Is The Life Just A Game....

2017



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8- Hamdard university

The screenshot shows a web browser window with the URL www.hamdard.edu.pk/qectemp/international-memberships/. The page header features the Hamdard University logo and the tagline "HAMDARD UNIVERSITY In Pursuit of Excellence". A search bar is located in the top right corner. Below the header is a navigation menu with links for Home, About HU, Faculties, Campuses, Programs, Downloads, Alumni, Admission, Career, and Contact. The main content area includes a large banner image of a modern building with the text "Hamdard University (City Campus)". To the right of the banner are three blue buttons: "Results", "Click Here - to view all Test Results", "Admissions", and "Student Portal (HUSIS)". Below the banner, there is a "QEC Menu" on the left with links for "Quality Enhancement Cell", "Vision, Mission And Goals", "QEC Organogram", "QEC Team", and "Download QEC". The main heading "International Memberships" is followed by the word "Memberships:" in green. Below this, there are logos for "The Talloires Network" and "INCA AEF".

Hamdard University | In Pursuit of Excellence

www.hamdard.edu.pk

Home About HU Faculties Campuses Programs Downloads Alumni Admission Career Contact

بیت الحکمة Bait-Al-Hikmah

Bait al Hikmah is the main library at Hamdard University, Karachi. It opened in December 1989. Bait al Hikmah Library has large collection of books and journals on different subjects and in different languages, covering Science and Technology, Medicine, Management Sciences, Indo-Pakistan History, Islam and Religion, Traditional/Alternative Systems of Medicine, Social Sciences and Jurisprudence besides Urdu, English, Arabic and Persian literature, as well as departmental specialised libraries of the Hamdard University at College of Medicine, College of Eastern Medicine, Institute of Management Sciences, Institute of Education and Social Sciences, Institute of Information Technology, Faculty of Pharmacy and Faculty of Law which meet the needs of their students and teachers to a considerable extent.

- Results
- Click Here - to view all Test Results
- Admissions
- Student Portal (HUISIS)
- Employee Portal (CMS)
- CSR Activity Campaign

Home

Though the emergence of Hamdard University on the educational scene of Pakistan is in a fledgling stage yet the evolution it has witnessed thus far sets the trend that others are trying to replicate. The University does not want to rest on its laurels and therefore strives hard for further growth and maturity in order to be at par with renowned universities in the region.

The Main Campus of Hamdard University at Madinat alHikmah is spread over a picturesque landscape and is located in the vicinity of Sindh Balochistan border 8 km from the commercial center of the metropolis, on the main highway leading to Bund Murad Khan. The location of the campus is of great historical and geographical significance. It lies on the main highway, which connects it to the Hub Chowki on the highway to Quetta, and is situated along the Hub River on the borders of Sindh and Baluchistan. The site, according to the renowned historians and archaeologists, is the place where Muhammad Bin Qasim, who made Sindh the gateway of Islam in the sub-continent, landed on his way to Daibal. The Campus is also closer to yet another celebrated site i.e. the shrine of Shah Noorani in Lasbela, Balochistan. Access to the university has been further strengthened for the people of the South West and North due to the completion of Northern By-pass which

News & Notices

- Reschedule date of GAT General and GAT Subject Tests
- Notification Dear All HU Dean / Directors / Principals Subject: Reschedule date of GAT General ...more
- HUIC Admission Fall 2018 ...more
- GAT Tests - Sunday December 02, 2018
- Click here to Download ...more

Hamdard University | In Pursuit of Excellence

www.hamdard.edu.pk/#



HAMDARD UNIVERSITY
In Pursuit of Excellence



Silver Jubilee Celebrations
25th
HAMDARD UNIVERSITY

PCR Certified Organization

Search for...

News | Public

Home About HU Faculties Campuses Programs Downloads Alumni Admission Career Contact



Bait-Al-Hikmah

- Results
- Click Here - to view all Test Results
- Online Admissions
- Student Portal (HUISIS)
- Employee Portal (CMS)
- CSR Activity Campaign

Home

News & Notices

The screenshot shows the Hamdard University website with a green and white theme. The header includes the university logo, the motto "HAMDARD UNIVERSITY In Pursuit of Excellence", and a "Silver Jubilee Celebrations 25" logo. A search bar is located on the right. Below the header is a navigation menu with links for Home, About HU, Faculties, Campuses, Programs, Downloads, Alumni, Admission, Career, and Contact. The main content area features a large banner for "Convocation" showing graduates in red and black gowns. To the right of the banner is a sidebar with buttons for "Results", "Click Here - to view all Test Results", "Online Admissions", "Student Portal (HUIS)", "Employee Portal (CMS)", and "CSR Activity Campaign". The footer contains the word "Home" and a "News & Notices" section. The browser's taskbar at the bottom shows several open tabs and a download bar.

This screenshot shows the same Hamdard University website but with a different main banner. The banner is green and features the text "Hamdard university is participating in" above "2018 Education Expo". It includes an illustration of a graduation cap, books, and a lightbulb inside a head profile. The navigation menu is identical to the first screenshot. The sidebar on the right remains the same. The footer now includes the text "Public Holiday on October 24, 2018" and "HU Engineering Batch Accredited on (OBE) Level". The browser's taskbar at the bottom is also visible.

Hamdard University | In Pursuit of Excellence

www.hamdard.edu.pk/#

98th BIRTHDAY OF Shaheed Hakeem Muhammad Saif

9th JANUARY 1920 Yome Paidaish

پہلے ملک میں ہر توپہاں کے لیے تعلیم کا یکساں نصاب ہونا چاہیے۔

Home | About HU | Faculties | Campuses | Programs | Downloads | Alumni | Admission | Career | Contact

Results

Click Here - to view all Test Results

Online Admissions

Student Portal (HUIS)

Employee Portal (CMS)

CSR Activity Campaign

News & Notices

Home

HEC Introduces Green...html | 152452eo.pdf | Inclusive and Sustaina...pdf | How sustainable are o...html | Pakistan -... Sustahab...html

Hamdard University | In Pursuit of Excellence

www.hamdard.edu.pk/#

Safe Drive, Save Life

A CSR INITIATIVE BY HAMDARD UNIVERSITY

گزار انسان کا وہ حسن ہے جسے زوال نہیں۔

UNITY, FAITH, DISCIPLINE - Guiding Principles of Pakistan by Our Quaid

Home | About HU | Faculties | Campuses | Programs | Downloads | Alumni | Admission | Career | Contact

Results

Click Here - to view all Test Results

Online Admissions

Student Portal (HUIS)

Employee Portal (CMS)

CSR Activity Campaign

News & Notices

Home

HEC Introduces Green...html | 152452eo.pdf | Inclusive and Sustaina...pdf | How sustainable are o...html | Pakistan -... Sustahab...html

The screenshot shows the website for Hamdard University. The header features the university's logo, the tagline "HAMDARD UNIVERSITY In Pursuit of Excellence", and a "Silver Jubilee Celebrations 25" emblem. A search bar is located on the right. Below the header is a navigation menu with links for Home, About HU, Faculties, Campuses, Programs, Downloads, Alumni, Admission, Career, and Contact. The main content area includes a large image of the university's entrance with the text "Hamdard University" overlaid. To the right of the image is a sidebar with buttons for "Results", "Click Here - to view all Test Results", "Online Admissions", "Student Portal (HUIS)", "Employee Portal (CMS)", and "CSR Activity Campaign". A "News" section at the top left of the main area highlights "Updates Batch 2018-19 (Faculty of Pharmacy)". The footer contains a "Home" link and a "News & Notices" section. The browser's taskbar at the bottom shows several open tabs and a download icon.

This screenshot shows the updated website for Hamdard University. The header and navigation menu are consistent with the previous version. The main image now depicts a large, modern building with the text "Bait-Al-Hikmah" overlaid. The "News" section at the top left lists three items: "Engineering Batch Accredited on (OBE) Level II by PEC", "Public Defence of PhD candidate Mr. Arshad Saleem", and "Final Merit List". The sidebar on the right remains the same, providing quick access to results, admissions, and portals. The footer includes a "Home" link and a "News & Notices" section. The browser's taskbar at the bottom shows the same set of open tabs and download icon as the previous screenshot.

Hamdard University | In Pursuit of Excellence

www.hamdard.edu.pk/#

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Search for... Go!

25 Silver Jubilee Celebrations HAMDARD UNIVERSITY

News | [Print List of Selected Candidates Batch 2018-19 \(Faculty of Pharmacy\)](#)

Home About HU Faculties Campuses Programs Downloads Alumni Admission Career Contact

Idara-E-Said

Results

Click Here - to view all Test Results

Online Admissions

Student Portal (HUISIS)

Employee Portal (CMS)

CSR Activity Campaign

Home News & Notices

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www.hamdard.edu.pk/#

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Search for... Go!

25 Silver Jubilee Celebrations HAMDARD UNIVERSITY

News | [Public Holiday on October 24, 2018](#) HU

Home About HU Faculties Campuses Programs Downloads Alumni Admission Career Contact

Hamdard University

Results

Click Here - to view all Test Results

Online Admissions

Student Portal (HUISIS)

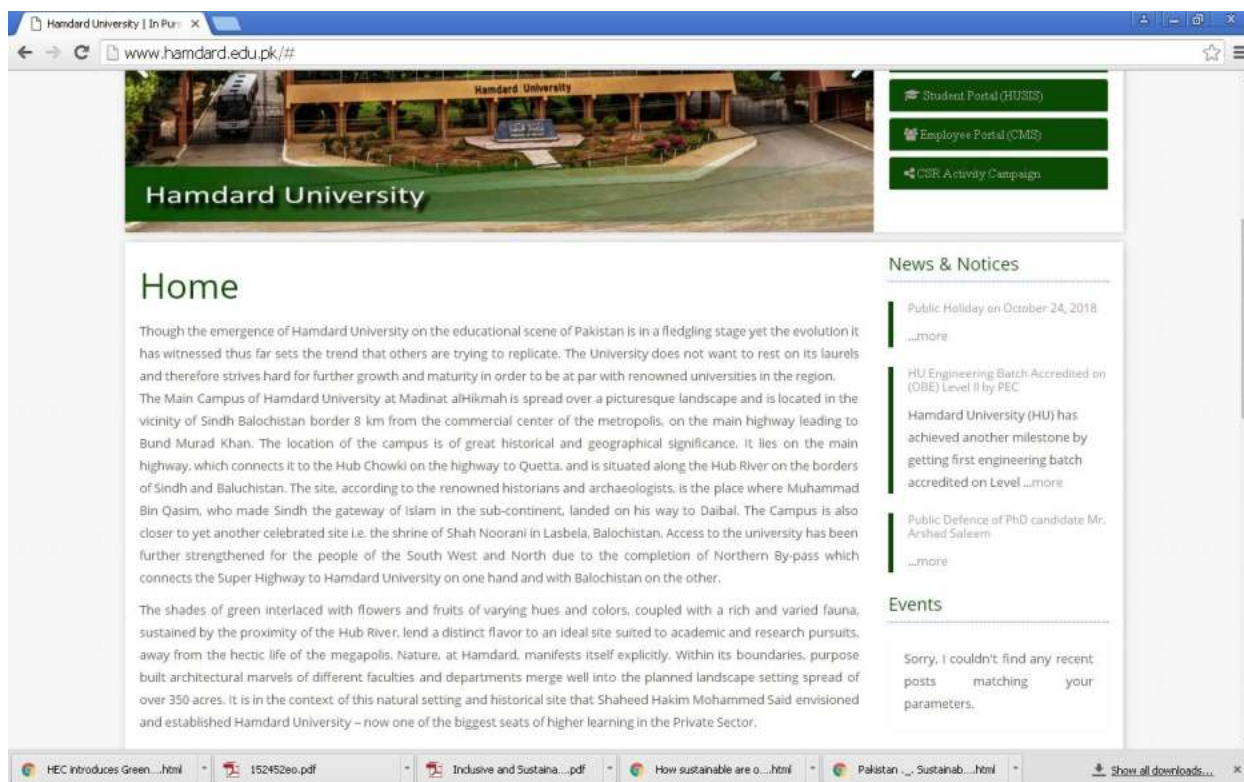
Employee Portal (CMS)

CSR Activity Campaign

Home News & Notices

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Hamdard University | In Pur... X
 www.hamdard.edu.pk/#



Hamdard University

Home

Though the emergence of Hamdard University on the educational scene of Pakistan is in a fledgling stage yet the evolution it has witnessed thus far sets the trend that others are trying to replicate. The University does not want to rest on its laurels and therefore strives hard for further growth and maturity in order to be at par with renowned universities in the region.

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The shades of green interlaced with flowers and fruits of varying hues and colors, coupled with a rich and varied fauna, sustained by the proximity of the Hub River, lend a distinct flavor to an ideal site suited to academic and research pursuits, away from the hectic life of the megapolis. Nature, at Hamdard, manifests itself explicitly. Within its boundaries, purpose built architectural marvels of different faculties and departments merge well into the planned landscape setting spread of over 350 acres. It is in the context of this natural setting and historical site that Shaheed Hakim Mohammed Said envisioned and established Hamdard University – now one of the biggest seats of higher learning in the Private Sector.

News & Notices

- Public Holiday on October 24, 2018 ...more
- HU Engineering Batch Accredited on (OBE) Level II by PEC
- Hamdard University (HU) has achieved another milestone by getting first engineering batch accredited on Level ...more
- Public Defence of PhD candidate Mr. Arshad Saleem ...more

Events

Sorry, I couldn't find any recent posts matching your parameters.

HEC Introduces Green...html | 152452eo.pdf | Inclusive and Sustaina...pdf | How sustainable are o...html | Pakistan -., Sustahab...html | Show all downloads...

Vision & Mission | Hamdard U... X
 www.hamdard.edu.pk/vision-mission/

News | Public Holiday on October 24, 2018 | HU Engineering Batch Accredited on (OBE) L...

Home | About HU | Faculties | Campuses | Programs | Downloads | Alumni | Admission | Career | Contact



To provide state-of-the-art educational and laboratory facilities, and a conducive environment to students and staff for their professional and personality development.

To promote Islamic concept of enlightenment through firm efforts to enable students and faculties compatible with the material and spiritual progress of humankind.

Vision & Mission

VISION:
 To preserve, and disseminate knowledge by achieving highest level of excellence at par with best institutions of the world.

MISSION:

- To provide a superior liberal education.
- To be catalyst to the intellectual growth of the students.
- To inculcate high ethical standards in students.
- To prepare students future members of the learned professions.
- To advance the frontiers of knowledge and contribute boldly to the international community of scholarship.
- To help alleviate suffering through, both, sympathy and action.
- To provide state-of-the-art educational facilities on and beyond our campuses.

News & Notices

- Public Holiday on October 24, 2018 ...more
- HU Engineering Batch Accredited on (OBE) Level II by PEC
- Hamdard University (HU) has achieved another milestone by getting first engineering batch accredited on Level ...more
- Public Defence of PhD candidate Mr. Arshad Saleem

HEC Introduces Green...html | 152452eo.pdf | Inclusive and Sustaina...pdf | How sustainable are o...html | Pakistan -., Sustahab...html | Show all downloads...

www.hamdard.edu.pk/vision-mission/

Vision & Mission

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To be catalyst to the intellectual growth of the students.
To inculcate high ethical standards in students.
To prepare students future members of the learned professions.
To advance the frontiers of knowledge and contribute boldly to the international community of scholarship.
To help alleviate suffering through, both, sympathy and action.
To provide wide ranging educational opportunities on and beyond our campuses.

OBJECTIVES:
To enhance the University's learning environment.
To provide comprehensive high quality educational and research opportunities.
To make Hamdard University's academic programs meet the changing needs of students and the challenges of the 21st century.
To attract and retain excellent students, as well as staff.

News & Notices

Public Holiday on October 24, 2018
...more

HU Engineering Batch Accredited on (OBE) Level II by PEC
Hamdard University (HU) has achieved another milestone by getting first engineering batch accredited on Level...more

Public Defence of PhD candidate Mr. Arshad Saleem
...more

Events

Sorry, I couldn't find any recent posts matching your parameters.

www.hamdard.edu.pk/the-founder/

HAMDARD UNIVERSITY
In Pursuit of Excellence

PCF Certified Organization

25
Silver Jubilee Celebrations
HAMDARD UNIVERSITY

Search for...

News | Public Defence of PhD candidate Mr. Arshad Saleem | Final Merit List of Selected Candidates Batch 2018-19 (Faculty of Pharmacy)

Home | About HU | Faculties | Campuses | Programs | Downloads | Alumni | Admission | Career | Contact

We have each come into this world for a specific reason to live, love and serve Allah through services of His creatures.
This is what the institution of Hamdard reflects dignity, knowledge, faith, sincerity, honesty and the spirit of services.
Hamdard (signifying one who has 'sympathy') has chosen to serve through activities for the promotion of good health.

Shaheed Hakim Mohammad Said

The Founder

"It has been my endeavor to prepare Pakistani youth for the challenges of tomorrow. I would like to see the youth studying at our campuses to develop the qualities of devotion, love, determination and services to mankind."

News & Notices

Public Holiday on October 24, 2018
...more

Results
Click Here - to view all Test Results
Online Admissions
Student Portal (HUIS)

The screenshot shows the homepage of the Quality Enhancement Cell (QEC) at Hamdard University. The browser address bar displays www.hamdard.edu.pk/qectemp/. The page layout includes a navigation menu on the left, a main content area, and a right sidebar.

QEC Menu

- Quality Enhancement Cell
- Vision, Mission And Goals
- QEC Organogram
- QEC Team
- Download QEC
- SAR
- National-International Memberships
- Picture Gallery

Quality Enhancement Cell

Quality Enhancement Cell

The Quality Enhancement Cell (QEC) was established on September 13, 2013 at Hamdard University. It seeks to assure quality in all academic and administrative departments. Quality Assurance is a process-driven approach with specific steps to help define and attain goals. This process consists of design, development, production, and services. The goal is to ensure that excellence is inherent in every component of the process. Quality assurance also helps determine whether the steps used to provide the product or services are appropriate for the time and conditions. The cycle for quality assurance consists of four steps: Plan, Do, Check, and Act. Ever since the inception of QEC, all departments have set Standard Operating Procedures (SOPs) that are strictly followed and regularly audited. This helps maintain the standard and assures quality in the departmental performance. The QEC also ensures that the quality output at all departments is further enhanced by providing support and guidance using the internationally accepted QA tools.

News & Notices

- Public Holiday on October 24, 2018
- B.Ed. Honors 4 Year (Regular Program)

Events

- Public Holiday on October 24, 2018 ...more
- B.Ed. Honors 4 Year (Regular Program) ...more
- Candidates Selected for the Interview (LLB 5 Years) ...more

The browser's taskbar at the bottom shows several open files: "HEC Introduces Green...html", "152452eo.pdf", "Inclusive and Sustaina...pdf", "How sustainable are o...html", and "Pakistan ,... Sustainab...html".

The screenshot shows the "Vision, Mission, Objectives" page of the Quality Enhancement Cell (QEC) at Hamdard University. The browser address bar displays www.hamdard.edu.pk/qectemp/vision-mission-objectives/. The page layout is similar to the homepage, with a navigation menu on the left and a main content area.

QEC Menu

- Quality Enhancement Cell
- Vision, Mission And Goals
- QEC Organogram
- QEC Team
- Download QEC
- SAR
- National-International Memberships
- Picture Gallery

Vision, Mission, Objectives

VISION

To strive for value-based quality higher education through creating and upholding higher standards and quality assurance in all academic activities leading to excellence in line with University's motto "In Pursuit of Excellence".

MISSION

To facilitate University's endeavors to keep pace with the international quality standards in terms of academic programs, pedagogy and research through planning, assessment, evaluation and on-going persuasion and monitoring.

OBJECTIVES

(As set by Higher Education Commission)

1. To promote public confidence that the quality and standards of the award of degrees are enhanced and safeguarded.
2. To review quality standards and the quality of teaching and learning in each subject area.
3. To review academic affiliations with other institutions in terms of effective management of standards and quality of programs.
4. To define clear and explicit standards as points of reference to the reviews to be carried out.
5. To develop qualifications framework by setting out the attributes and abilities that can be expected from the holder of a qualification, i.e. Bachelors, Bachelor with Honors, Masters, M. Phil, Doctoral.
6. To develop program specifications clarifying what knowledge, understanding, skills and other attributes a student will have developed on successfully completing a specific program.
7. To develop quality assurance processes and methods of evaluation to affirm that the quality of provision and the standard of awards are being maintained and to foster curriculum, subject and staff development, together with research and other scholarly activities.
8. To ensure that the university's quality assurance procedures are designed to fit in with the arrangement in place

The browser's taskbar at the bottom shows the same set of files as the previous screenshot.

Resources | Hamdard Univer... | Vision, Mission, Objectives | | Hawayeen - Official Lyric... |

www.hamdard.edu.pk/qectemp/vision-mission-objectives/

SAR

National-International Memberships

Picture Gallery

OBJECTIVES

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6. To develop program specifications clarifying what knowledge, understanding, skills and other attributes a student will have developed on successfully completing a specific program.
7. To develop quality assurance processes and methods of evaluation to affirm that the quality of provision and the standard of awards are being maintained and to foster curriculum, subject and staff development, together with research and other scholarly activities.
8. To ensure that the university's quality assurance procedures are designed to fit in with the arrangement in place nationally for maintaining and improving the quality of higher education.
9. To develop procedures for:
 - o Approval of new program
 - o Annual monitoring and evaluation including program monitoring, faculty monitoring and student perceptions
 - o Departmental Review
 - o Student feedback
 - o Employer feedback
 - o Quality assurance of Master's, M. Phil and PhD degree programs
 - o Subject Review
 - o Institutional Assessment
 - o Program Specifications
 - o Qualification Framework

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Hamdard University | In Pur... | International Memberships | | Kun Faya Kun Full Video So... |

www.hamdard.edu.pk/qectemp/international-memberships/

Hamdard University


Student Portal (HUSIS)

QEC Menu


- Quality Enhancement Cell
- Vision, Mission And Goals
- QEC Organogram
- QEC Team
- Download QEC
- SAR
- National-International Memberships
- Picture Gallery

International Memberships

Memberships:



The Talloires Network



INQAAHE
INTERNATIONAL NETWORK FOR QUALITY ASSURANCE AGENCIES IN HIGHER EDUCATION

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www.hamdard.edu.pk/qectemp/wp-content/uploads/sites/28/2015/06/def.jpg

9- Qurtaba University of Science and Information Technology

The image is a screenshot of a web browser displaying the official website of Qurtaba University of Science & Information Technology. The browser's address bar shows the URL www.qurtuba.edu.pk. The website's header features the university's logo and name, a search bar, and a navigation menu with links for HOME, ABOUT US, ADMISSIONS, DEPARTMENTS, ORIC, QEC, STUDENT PORTAL, GALLERY, EXAMINATION, and JOBS. The main content area is dominated by a large banner image showing five men in suits standing together, with a yellow overlay text that reads "MOU WITH UNIMAS". Below this banner, a "News Alert" section indicates "Summer Vacations, 2018 - Thursday, 07 June 2018 00:00". A prominent blue banner for "ADMISSIONS FALL 2018" is also visible, along with text stating "HEC Recognized W3 Category University" and a list of accrediting bodies: NBEAC (Business Council), NCEAC (Computing Council), NACTE (Education Council), BARI Council, and Pakistan Engineering Council. The bottom of the browser window shows a taskbar with several open tabs, including "HEC Introduces Green...", "152452eo.pdf", "Inclusive and Sustaina...", "How sustainable are o...", and "Pakistan - Sustainab...".

The screenshot shows the Qurtuba University website with a banner for 'STATE OF THE ART LABS' featuring a laboratory setting with a microscope and a flask. The navigation menu includes HOME, ABOUT US, ADMISSIONS, DEPARTMENTS, ORIC, QEC, STUDENT PORTAL, GALLERY, EXAMINATION, and JOBS. A search bar is located in the top right. Below the banner, a 'News Alert' section mentions 'Qurtuba University Alumni Success Stories' dated Monday, 27 March 2017 00:00. A large blue banner for 'ADMISSIONS FALL 2018' is displayed, featuring the university logo and accreditation information: 'HEC Recognized W3 Category University' and 'Accredited & Permitted by: NSIC (Business Council), NCEAC (Computing Council), NICTE (Education Council), BAR Council, Pakistan Engineering Council'. Below this, there is a list of open files in the browser's taskbar, including 'HEC Introduces Green...html', '152452eo.pdf', 'Inclusive and Sustaina...pdf', 'How sustainable are o...html', and 'Pakistan ,_ Sustahab...html'.

The screenshot shows the Qurtuba University website with a banner for 'CONVOCATION 2018' featuring a group of graduates in academic regalia. The navigation menu and search bar are identical to the previous screenshot. Below the banner, a 'News Alert' section mentions 'Qurtuba University launched android app for Qurtuba Schools' kids' dated Tuesday, 24 January 2017 19:29. A large blue banner for 'ADMISSIONS FALL 2018' is displayed, featuring the university logo and accreditation information: 'HEC Recognized W3 Category University' and 'Accredited & Permitted by: NSIC (Business Council), NCEAC (Computing Council), NICTE (Education Council), BAR Council, Pakistan Engineering Council'. Below this, there is a list of open files in the browser's taskbar, including 'HEC Introduces Green...html', '152452eo.pdf', 'Inclusive and Sustaina...pdf', 'How sustainable are o...html', and 'Pakistan ,_ Sustahab...html'.

The screenshot shows the Qurtuba University website with a navigation menu including HOME, ABOUT US, ADMISSIONS, DEPARTMENTS, ORIC, QEC, STUDENT PORTAL, GALLERY, EXAMINATION, and JOBS. The main banner features a stack of books with the text "RESEARCH AT QURTUBA" overlaid. Below the banner is a "News Alert" for "Qurtuba University Alumni Success Stories" dated Monday, 27 March 2017 00:00. A secondary banner promotes "ADMISSIONS FALL 2018" and lists accreditations: HEC Recognized W3 Category University, and Accredited & Permitted by NSIC (Business Council), NCEAC (Computing Council), NICTE (Education Council), and BAR Council (Pakistan Engineering Council). The browser's taskbar shows several open files.

This screenshot is similar to the first one but features a different main banner. The banner includes the HEC logo and a 3D bar chart with the text "3RD POSITION IN SCIENCES & IT". The navigation menu and secondary banner are identical to the first screenshot. The browser's taskbar also shows the same set of open files.

The screenshot shows the website for Qurtuba University of Science & Information Technology. The browser address bar displays 'www.qurtuba.edu.pk'. The navigation menu includes: HOME, ABOUT US, ADMISSIONS, DEPARTMENTS, ORIC, QEC, STUDENT PORTAL, GALLERY, EXAMINATION, and JOBS. A search bar is located in the top right. The main banner features a man in a suit pointing at a futuristic cityscape with the text 'CIVIL ENGINEERING' in a yellow box. Below the banner is a 'News Alert' for 'The Dialogue-Alert' dated Thursday, 20 July 2017 00:00. A large blue banner for 'ADMISSIONS FALL 2018' is displayed, featuring the university logo and accreditation details: 'HEC Recognized W3 Category University' and 'Accredited & Permitted by: NSIC (Business Council), NCEAC (Computing Council), NACTE (Education Council), BAR Council, Pakistan Engineering Council'. It also mentions 'Workers Welfare Board Scholarships' in Urdu. The browser's taskbar shows several open files.

This screenshot is similar to the one above, showing the Qurtuba University website. The navigation menu and search bar are identical. The main banner features a close-up of electrical circuit boards and tools with the text 'ELECTRICAL ENGINEERING' in a yellow box. The 'News Alert' below the banner is for 'Qurtuba University launched android app for Qurtuba Schools' kids' dated Tuesday, 24 January 2017 19:29. The 'ADMISSIONS FALL 2018' banner is also present, with the same accreditation and scholarship information as the first screenshot. The browser's taskbar shows the same set of open files.

Qurtuba University of Science & Information Technology

HEC Recognized W3 Category University

Accredited & Permitted by: NSIC (Business Council), NCEAC (Computing Council), NICTE (Education Council), BAR Council, Pakistan Engineering Council

Workers Welfare Board Scholarships
عسکری اداروں کے ملازمین کے لئے تعلیمی اسکالرشپس

News Alert: The Dialogue-Alert - Thursday, 20 July 2017 00:00

HEC Introduces Green...html | 152452eo.pdf | Inclusive and Sustaina...pdf | How sustainable are o...html | Pakistan ,_ Sustanab...html

Qurtuba University of Science & Information Technology

HEC Recognized W3 Category University

Accredited & Permitted by: NSIC (Business Council), NCEAC (Computing Council), NICTE (Education Council), BAR Council, Pakistan Engineering Council

Workers Welfare Board Scholarships
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News Alert: Qurtuba University launched android app for Qurtuba Schools' kids - Tuesday, 29 January 2017 19:29

HEC Introduces Green...html | 152452eo.pdf | Inclusive and Sustaina...pdf | How sustainable are o...html | Pakistan ,_ Sustanab...html

Qurtuba University of Science & Information Technology

www.qurtuba.edu.pk

HOME ABOUT US ADMISSIONS DEPARTMENTS ORIC QEC STUDENT PORTAL GALLERY EXAMINATION JOBS

SPORTS AT QURTUBA

News Alert: The Dialogue-Alert - Thursday, 20 July 2017 00:00

HEC Recognized W3 Category University

Accredited & Permitted by: NCEAC (Business Council), NCEAC (Computing Council), NAICTE (Education Council), BAF Council, Pakistan Engineering Council

Workers Welfare Board Scholarships

HEC Introduces Green...html 152452eo.pdf Inclusive and Sustaina...pdf How sustainable are o...html Pakistan ,...Sustainab...html

Qurtuba University of Science & Information Technology

www.qurtuba.edu.pk

UNDERGRADUATE STUDY POSTGRADUATE STUDY QUALITY ASSURANCE VISIT US

Qurtuba University is placed under W3 Category by the HEC – choose one of our undergraduate study degree and have a remarkable academic experience. Read more

Apply for one of our postgraduate taught or research degrees and experience the thriving research culture of Qurtuba university. Read more

The University operates an integrated system for quality assurance and enhancement making an effective contribution in achieving its goals. Read more

The university has two campuses – one in D.I.Khan (Main campus) and the other in Peshawar (Constituent campus). Both the campuses are recognized by the HEC. View details

NEWS AND EVENTS

Workshop on Turnitin
Thursday, 19 July 2018
A workshop on Turnitin was organized by ORIC at Peshawar Campus on July 14th, 2018. The workshop was... More detail

ORIC Team Visit to QUSIT D.I. Khan Campus
Friday, 11 May 2018
The members of ORIC Department, namely Dr. Asim Zeb (Director ORIC), Mr. Naveed (Manager Linkages) a... More detail

MESSAGES

Founding President
Knowledge as power is a strong actor of both social and moral change. It is the only so I pray to Allah, The Almighty, to bless us with understanding,... More detail

President's Message
Welcome to Qurtuba University of Science and Information Technology D.I.Khan. The founder of this University, late Abdul Aziz Khan Niazi, has said tha... More detail


QUICK LINKS

- MS/ M.Phil/ PhD Thesis Format
- Academic Calendar
- Engineering
- Updated Research Proposal Format
- Time Table Spring 2018
- Annual Report 2016-17


HEC Introduces Green...html 152452eo.pdf Inclusive and Sustaina...pdf How sustainable are o...html Pakistan ,...Sustainab...html

Qurtuba University of Science X
www.qurtuba.edu.pk


NEWS AND EVENTS



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Seminar on Climate Change
Thursday, 03 May 2018
Climate Change and Sustainable Development using Green Infrastructure for Storm water A one d... More detail

[View more news](#)


MESSAGES



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Knowledge as power is a strong actor of both social and moral change. It is the only so I pray to Allah, The Almighty, to bless us with understanding... More detail




President's Message
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Message from VC
Qurtuba University of Science and Information Technology was established with the sole purpose of imparting quality education in the various fields of... More detail

QUICK LINKS

- [MS/ M.Phil/ PhD Thesis Format](#)
- [Academic Calendar](#)
- [Engineering](#)
- [Updated Research Proposal Format](#)
- [Time Table Spring 2018](#)
- [Annual Report 2016-17](#)



Qurtuba University Official
11 hours ago
R&D FYP Zero Poster
It is for the information of all concerned terminal semester students (Bachelors/Masters) to submit Zero Poster along

D.I.KHAN CAMPUS
Sheikh Yusuf Road, Dera Ismail Khan,
www.qurtuba.edu.pk/index.php/component/j2/item/247-oric-visit

PESHAWAR CAMPUS
K-1, Phase III, Hayatabad, Peshawar
Phone: +92 (091) - 5812117, 5813332, 5825707

CONNECT WITH US
We're on Social Networks. Follow us & get in touch.


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News & Events X
www.qurtuba.edu.pk/index.php/component/k2/itemlist/category/15-new-events

03 MAY 2018

[In News & Events](#)

Seminar on Climate Change




Climate Change and Sustainable Development using Green Infrastructure for Storm water

A one day seminar on the mentioned topic was held on April 25, 2018 at Qurtuba University, Peshawar Campus. The Resource Person "Dr. Imtiaz Shah" a renowned scientist who spend more than 30 years in this area. He is working from last 25 years as Senior Environmental Engineer in Canada and also serving as Adjunct Professor in University of Western Ontario. Faculty members and students attended the seminar and they showed great interest in the climate change and green infrastructure. The seminar was ended with a vote of thanks.

MORE...

[CCNA First Batch Successful Completion](#)



START PREV **1** 2 3 4 5 6 7 8 9 10 NEXT END

Page 1 of 18

News & Events

www.qurtuba.edu.pk/index.php/component/k2/itemlist/category/15-new-events?start=16

09 DECEMBER 2017 **3rd Asia International Conference (AIC 2017)**

In News & Events



3rd ASIA INTERNATIONAL CONFERENCE (AIC 2017)

Conference Venue: Universiti Teknologi Malaysia, Kuala Lumpur Campus, Kuala Lumpur, Malaysia

Conference Date: 9-10 December 2017

The conference mainly focuses but not limited to four broad areas. The themes of the conference are as follows:

- 1. Advances in Managing Operations and Sustainability**
- 2. Emerging Issues in Economics and Finance**
- 3. Future of Marketing and Management**
- 4. Global Development in Humanities, Education and Civilization**

Mr. Saif-ul-Islam, Pro-Vice Chancellor and Dr. Saima Batool, HoD Management Sciences, Qurtuba University are in Malaysia for the said conference.

24 NOVEMBER 2017 **PhD in Islamic Studies**

In News & Events



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Vision, Mission & Objectives

www.qurtuba.edu.pk/index.php/about-qurtuba/vision-mission-objectives

Vision & Mission

Let There Be Light and Life Long Learning

Vision

To help establish a knowledge-based, tolerant and progressive society that may strive for the establishment of a just socio-economic, political and moral order in the Islamic Republic of Pakistan

Mission

To help our succeeding generations in the acquisition of academic and moral excellence and to facilitate them in their quest for inquiry, so that they may know the truth, which, in turn, will emancipate them from ignorance & enable them for service to mankind and submission to Allah Almighty

Objectives

Man, we believe, is created as a vicegerent of Allah in this world. As an out-pouring mercy of Allah, he has been endowed with knowledge to fulfill his responsibilities as His vicegerent. Now knowledge is of two kinds: (1) Acquisitional knowledge and (2) Revelational knowledge. For acquisitional knowledge, the potentials (such as Eyes, Ears, Head and Heart) are laid into the human constitution, while revelational knowledge (that is the wisdom and values) is communicated to him by the Holy Quran through His Prophet Muhammad (PBUH). Knowledge and Education, we are convinced, are meant to train man for the fulfillment of his duties (as His vicegerent) in this world. In an ideal system of education both these forms of knowledge should be dovetailed wherein wisdom (revelational guidance) should supervise our acquisitional knowledge (i.e. Knowledge gained through natural and social Sciences). In Qurtuba System of Education our primary objective, is to struggle for the realization of this ideal form of education. The Ultimate objectives are:

- To provide environment for high quality teaching and learning through imaginative, stimulating and rigorous professional classroom practice.
- To give value to each individual's right to develop his/her full potential in every respect.
- To provide an effective system of personal care and academic support.
- To encourage students to seek academic and moral excellence.

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[Vision, Mission & Objectives](#) x
www.qurtuba.edu.pk/index.php/about-qurtuba/vision-mission-objectives

Objectives


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- To provide environment for high quality teaching and learning through imaginative, stimulating and rigorous professional classroom practice.
- To give value to each individual's right to develop his/her full potential in every respect.
- To provide an effective system of personal care and academic support.
- To encourage students to seek academic and moral excellence.
- To prepare students for creative and constructive thinking
- To encourage the spirit of tolerance and understanding of other cultures, races, faiths and classes.
- To prepare students for optimum public service.
- To produce responsible citizens and dynamics leadership for the country.

ABOUT QU	ADMISSION & AID	FACULTY	RESEARCH AT QU
<ul style="list-style-type: none"> > History of QU > Vision, Mission & Objectives > University's Governance > Administration 	<ul style="list-style-type: none"> > Rules & Regulations (BA/MA) > Rules & Regulations (MS/PHD) > Scholarships > Online Admission Form 	<ul style="list-style-type: none"> > Management Sciences > Education > Linguistic & literature > Politics & International Relations 	<ul style="list-style-type: none"> > Research Journals > Digital Library > Quality Enhancement Cell > Publications by Faculty

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[ORIC Introduction](#) x
www.qurtuba.edu.pk/index.php/research/oric/intro



Qurtuba University

of Science & Information Technology

Search...

[HOME](#) | [ABOUT US](#) | [ADMISSIONS](#) | [DEPARTMENTS](#) | **[ORIC](#)** | [QEC](#) | [STUDENT PORTAL](#) | [GALLERY](#) | [EXAMINATION](#) | [JOBS](#)

ORIC Introduction

After receiving the intimation regarding establishment of ORIC, the Office of Research, Innovation and Commercialization is an integral part of QUSIT. It aims to provide strategic and operational support to the University's research activities/program, and have a central role in facilitating the University's research outcomes. ORIC fosters a research environment that promotes the research and consultancy culture and the culture of basic research which allows researcher to engage in a productive research activity.

ORIC is devoted to Bridge the gap between theory and practice by devising frameworks that can determine patterns of private business in informal sector. This can be achieved by three ways.

1. Creating Academic – Practitioner Interaction Environment.
2. Promoting Student – Practitioner Interaction Environment.
3. Marketing and Promotion of Academic Excellence.

ORIC is committed to play a central role in facilitating the University Industry linkages for commercialization of research. It is determined to establish links with donor agencies and Industries. It is dedicated also to serve as channel to process all the Research proposals and Thesis sent to HEC or other agencies. It makes sure to promote the researches relevant to Pakistan socio-economic needs.

ORIC at QUSIT provides guidance to Conduct and participate in conferences, Seminars and training programs for faculty awareness and faculty industry linkages. It also organizes trainings and workshops at national and International level and conducts and coordinates symposiums and seminars at national and International level. It intends to help faculty, staff and students to comply with all ORIC and QUSIT policies and procedures.

ORIC also helps in developing business plans by the students and faculty member to eliminate the chasm in student, faculty n Practitioners interaction and by this achieving the goal to bring theory into practice.

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ORIC Objectives

1. Assure that the quality of research reflects the highest international standards
2. Provide valuable advice and support for faculty to pursue quality research
3. Safeguard compliance with all policies, legal requirements and operational standards of the University
4. Ensure that all research programs and policies reflect the core values of academic freedom, professional integrity and ethical conduct Support strategic research Promoting and enhancing cross-cutting and multi-disciplinary research initiatives directions and policies of QUSIT
5. Improving integration of research and education at all levels of the institute
6. Advance the stature of the University among the world's best research institutions
7. Increase and diversify external research funding
8. Improve translation of research into the public benefit
9. Promote entrepreneurship, technology-transfer and commercialization activities that energize and support the local and national economy
10. Strengthen university-industry relationships
11. Enhance integration of research and education at all levels of the university

[back to top](#)

ABOUT QU
 > History of QU
 > Vision, Mission & Objectives
 > University's Governance

ADMISSION & AID
 > Rules & Regulations (BA/MA)
 > Rules & Regulations (MS/PHD)
 > Scholarships

FACULTY
 > Management Sciences
 > Education
 > Linguistic & literature

RESEARCH AT QU
 > Research Journals
 > Digital Library
 > Quality Enhancement Cell

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10- SZABIST

Campus Radio Station ZAB FM 106.6 | SZABIST Board | Career | Feedback | Search | Sitemap | Contact Us

SZABIST Karachi | Islamabad | Larkana | Hyderabad | Dubai

Categories

- Introduction
- Vision & Mission
- Chancellor's Message
- President's Message
- Vice President Academics's Message
- Vice President Admin & Finance's Message
- Research and Development
- Institutional Research and Quality Enhancement Cell
- Research Centers
- Events Gallery
- Corporate Video

News & Events

- Admission are open for Dubai Campus
- Admission are open for Islamabad Campus
- Admission are open for Karachi Campus
- Admission are open for Larkana Campus
- Admission are open for Hyderabad Campus

NEED BASED SCHOLARSHIPS 2018

Who Can Apply?
All degree program students except for PhD, and External Programs. Whose CGPA is above 2.0. Annual family income not more than Rs. 900,000.

How To Apply?
Click here for the application form

DEADLINE: JULY 10th, 2018

Where To Submit The Form:
For Karachi Campus: External Relations and Financial Assistance (ERFA) Department, 90 Campus
For Islamabad Campus: ERFA Department, Admin Block, Ground Floor
* Applicable For Karachi & Islamabad Campuses Only.

Prospectus
Student Handbook
Annual Report

www.szabist.edu.pk

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- Vice President Academics's Message
- Research and Development
- Research Centers
- Events Gallery
- Corporate Video

News & Events

- Admission are open for Larkana Campus
- Admission are open for Hyderabad Campus
- Five of SZABIST's ICT final year projects have been selected for funding by National ICT R&D Fund.
- Jobs at SZABIST

The Vision

SZABIST aims to be a globally recognized institute for excellence in education, research, development, and distinction in service.

The Mission

SZABIST is committed to produce highly qualified professionals to:

- Meet national and global contemporary needs;
- Conduct cutting edge research and development;
- Provide hi-tech scientific and technological expertise;
- Meet current and future socio-economic challenges;
- Meet global citizenship responsibility

Prospectus
Student Handbook
Annual Report

Shaheed Zulfikar Ali Bhutto Institute of Science & Technology

021-111-922-472 | Fax: (021) 26929446 | Email: info@szabist.edu.pk | Copyright © 2014 SZABIST


Chat? - Offline

HEC Introduces Green...html | 152452eo.pdf | Inclusive and Sustaina...pdf | How sustainable are o...html | Pakistan ... Sustainab...html

The screenshot displays the website for SZABIST Islamabad Campus. The browser address bar shows the URL <https://www.szabist-isb.edu.pk/Introduction.asp>. The website header includes the SZABIST logo and a navigation menu with items: Home, About Us, Programs, Brochures, Library, Notice board, Student Resources, Research, and Zabdesk. Below the header, there are navigation links for 'Fall 2018', 'Faculty Paper Presentation', and 'PMI-IPC 18th Monthly Seminar', along with a search box. The main content area features a large photograph of a modern, multi-story red brick building with large glass windows. To the right of the image is a sidebar with 'About Us' and 'Contact Us' sections, each containing a list of links. The 'About Us' links include Introduction, Vision & Mission, Board of Trustees, and Governance Structure. The 'Contact Us' link is Contact Us. Below the image, the text reads: 'The Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology (SZABIST) is a fully Chartered Institute established through a Legislative Act of the Pakistan Assembly (Sindh Act No. XI of 1995) and is approved and recognized by the Higher Education Commission (HEC), Pakistan, as a degree granting institution. SZABIST has campuses in Karachi, Islamabad, Larkana, Dubai (UAE) and Hyderabad. SZABIST is a registered member of the International Association of Universities (IAU), Paris; Association of Commonwealth Universities (ACU), London; Federation of the Universities of Islamic World (FUJW), Rabat; Asia University Federation (AUF), Seoul; and the Association of SAARC Universities, (ASU)'. The bottom of the browser window shows several open tabs: 'HEC Introduces Green...html', '152452eo.pdf', 'Inclusive and Sustaina...pdf', 'How sustainable are o...html', and 'Pakistan -... Sustainab...html', with a 'Show all downloads...' button on the right.

Browser tabs: SZABIST | Shaheed Zulfiqar, SZABIST Islamabad

Address bar: <https://www.szabist-isb.edu.pk/VisionMission.asp>



About Us

- [Introduction](#)
- [Vision & Mission](#)
- [Board of Trustees](#)
- [Governance Structure](#)

Contact Us

- [Contact Us](#)

Vision

Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology aims to be a globally recognized institute for excellence in education, research, and development, and distinction in service.

Mission

Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology is committed to produce highly qualified professionals to:

- Synchronise with national and global contemporary needs;
- Conduct cutting-edge research and development;
- Provide hi-tech scientific and technological expertise;
- Meet current and future socio-economic challenges;
- Fulfill global citizenship responsibility.

Browser tabs: HEC Introduces Green...html, 152452eo.pdf, Inclusive and Sustaina...pdf, How sustainable are o...html, Pakistan -, Sustahab...html

Download button: Show all downloads...

Browser tabs: SZABIST | Shaheed Zulfiqar, SZABIST Islamabad

Address bar: szabist-isb.edu.pk/Events/eventpost/eventdisplay

Spring 2010

11 OCTOBER	Personal Management for Competitive Advantage	Click here for Details
05 OCTOBER	Celebrating Teachers' Role in 21st Century Discussing Right to Education Article 25 and SDG 4 Implementation in Sindh	Click here for Details
25 SEPTEMBER	Seminar on Anti Sexual Harassment for Staff	Click here for Details
25 SEPTEMBER	Seminar on Anti Sexual Harassment for Females	Click here for Details
24 SEPTEMBER	SSC ISB Oath Taking Ceremony Fall 2018	Click here for Details
17 SEPTEMBER	Seminar on Anti Sexual Harassment	Click here for Details

Browser tabs: Topic and comment - ...html, RAEI_20_07.pdf


Download button: Show all downloads...



Browser tabs: SZABIST | Shoheed Zulfiqar, SDRC - Home, SZABIST Islamabad, Baloghul Ula Be Kamalhi

Address bar: sdrcc.szabist.edu.pk

Navigation: What We Do | Development Projects | Research Sphere | In Media | Gallery | Key Organizations | What You Can Do | Team Members



Welcome to SDRC

On 5th January 2010, the foundation of Sustainable Development Research Centre SDRC was laid. The premise of existence of this centre is to create a synergy between socio economic development and environment. The underlying aim is bring about growth and development without endangering the environment or the climate. Within this context, SDRC would have its focus on energy, environment and sustainable business and rural development.

Energy from fossil fuels is the major contributor of carbon dioxide in the environment. Two prong strategies would be used to address this particular issue. The advocacy of renewable energy technologies would be used to change the source of energy to an environment friendly choice and simultaneously the least cost option of energy efficiency and conservation would be adopted to reduce the use of energy.

Sustainable Business and rural development would encompass thorough investigation of the businesses and rural communities following by customized sustainable alternative energy solutions catering to the development with minimum carbon footprint. For businesses, this would mean efficient processes resulting in energy conservation and for rural communities it would be growth and development with least cost sustenance requirements.

The fundamental precedence of SDRC would always remain the mindfulness of environment and sustainability.

News & Events

Karachi Waste Management Problems and Solutions* by an internationally recognized speaker Mr. Syed E. Haque on Thursday, 22nd Sept, 2016 at 3:30 pm in room# 202 at 100.

National and Global Activities

ENERGY

- Plugging High-Speed Rail into Germany's Power Grid
- Al Gore calls for all US energy to be made renewable within 10 years
- India calls for equitable access to energy
- Games of Spain strikes \$2 billion deal with Caparo Energy
- Why Japan's Shift Away from Nuclear is Good for Business
- No Nukes, No Problem? Germany's Race for a Renewable Future
- From the Editor: Renewables Growth Continues But at What Pace?

ENVIRONMENT

- Earth's Next Generation
- Environmental Report on New Nuclear Plants to Start This Summer
- Puma puts a price on its environmental footprint
- Improve Energy Efficiency in Your Home.

Download bar: hm.gif, 10170817_102025252...jpg, 10254046_102025252...jpg, Show all downloads...

Browser tabs: SZABIST | Shoheed Zulfiqar, SDRC - Home, SZABIST Islamabad, Baloghul Ula Be Kamalhi

Address bar: sdrcc.szabist.edu.pk


Welcome to SDRC

On 5th January 2010, the foundation of Sustainable Development Research Centre SDRC was laid. The premise of existence of this centre is to create a synergy between socio economic development and environment. The underlying aim is bring about growth and development without endangering the environment or the climate. Within this context, SDRC would have its focus on energy, environment and sustainable business and rural development.

Energy from fossil fuels is the major contributor of carbon dioxide in the environment. Two prong strategies would be used to address this particular issue. The advocacy of renewable energy technologies would be used to change the source of energy to an environment friendly choice and simultaneously the least cost option of energy efficiency and conservation would be adopted to reduce the use of energy.

Sustainable Business and rural development would encompass thorough investigation of the businesses and rural communities following by customized sustainable alternative energy solutions catering to the development with minimum carbon footprint. For businesses, this would mean efficient processes resulting in energy conservation and for rural communities it would be growth and development with least cost sustenance requirements.

The fundamental precedence of SDRC would always remain the mindfulness of environment and sustainability.



National and Global Activities

ENERGY

- Plugging High-Speed Rail into Germany's Power Grid
- Al Gore calls for all US energy to be made renewable within 10 years
- India calls for equitable access to energy
- Games of Spain strikes \$2 billion deal with Caparo Energy
- Why Japan's Shift Away from Nuclear is Good for Business
- No Nukes, No Problem? Germany's Race for a Renewable Future
- From the Editor: Renewables Growth Continues But at What Pace?

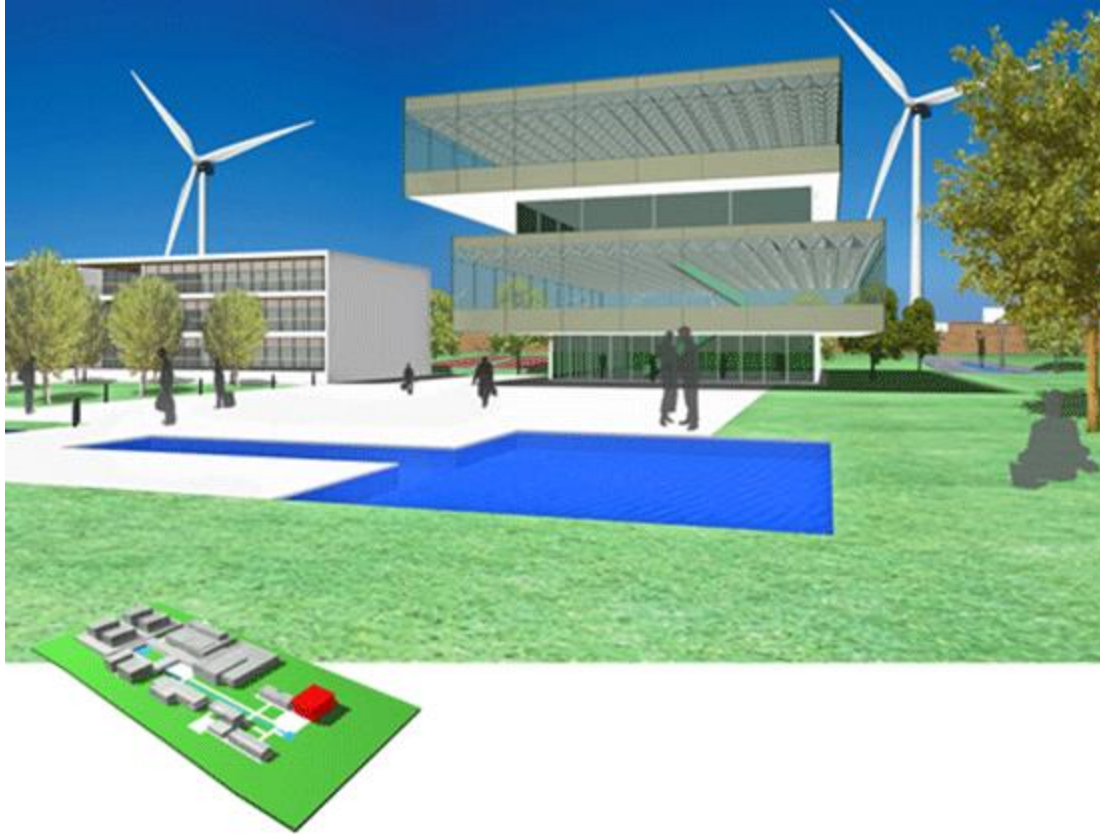
ENVIRONMENT

- Earth's Next Generation
- Environmental Report on New Nuclear Plants to Start This Summer
- Puma puts a price on its environmental footprint
- Improve Energy Efficiency in Your Home, Save Money and Help the Environment
- Why Pakistan monsoons support evidence of global warming

Footer: http://www.yle.fi/uusiset/news/2011/05/environmental_report_on_new_nuclear_plants_to_start_this_summer_2603915.html

Download bar: hm.gif, 10170817_102025252...jpg, 10254046_102025252...jpg, Show all downloads...



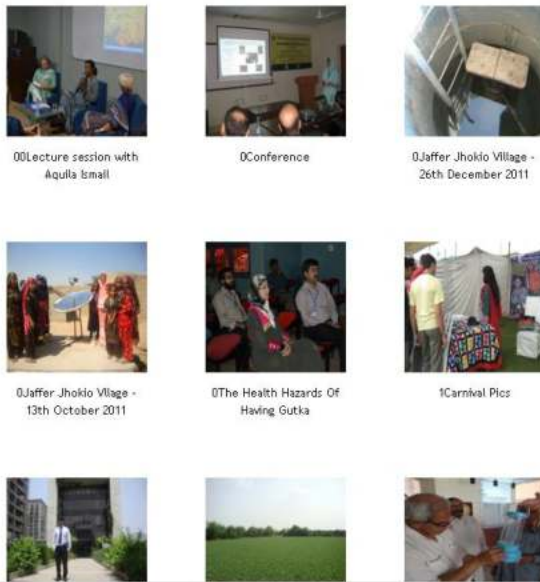


A screenshot of the Sustainable Development Research Centre (SDRC) website homepage. The browser address bar shows the URL "sdrcc.szabist.edu.pk/index.asp". The page features the SDRC logo, which includes a stylized green leaf and the text "SDRC SUSTAINABLE DEVELOPMENT RESEARCH CENTRE". A quote reads: "To be a leading research and advisory centre on energy, environment, and sustainable rural and business development, in close partnership with national and international organizations." Below the logo is a search bar. A navigation menu includes links for "What We Do", "Development Projects", "Research Sphere", "In Media", "Gallery", "Key Organizations", "What You Can Do", and "Team Members". The main content area is divided into two columns. The left column has a "Welcome to SDRC" section with a photograph of two men in a desert landscape, followed by text about the center's founding and mission. The right column has a "News & Events" section with a sub-section for "National and Global Activities" under the heading "ENERGY", listing several news items with green icons. The browser's taskbar at the bottom shows several open files, including "hmi.gf" and two image files.

SZABIST | Shaheed Zulfiqar x SDRG - Gallery x SZABIST Islamabad x Yaar Ko Hamne Jo Ba Jo x

sdrc.szabist.edu.pk/images.asp

SDRC - Gallery



00Lecture session with Aquila Ismail

0Conference

0Jaffer Jhokio Village - 26th December 2011

0Jaffer Jhokio Village - 13th October 2011

0The Health Hazards Of Having Gutka

1Carnival Pics

0

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ENERGY

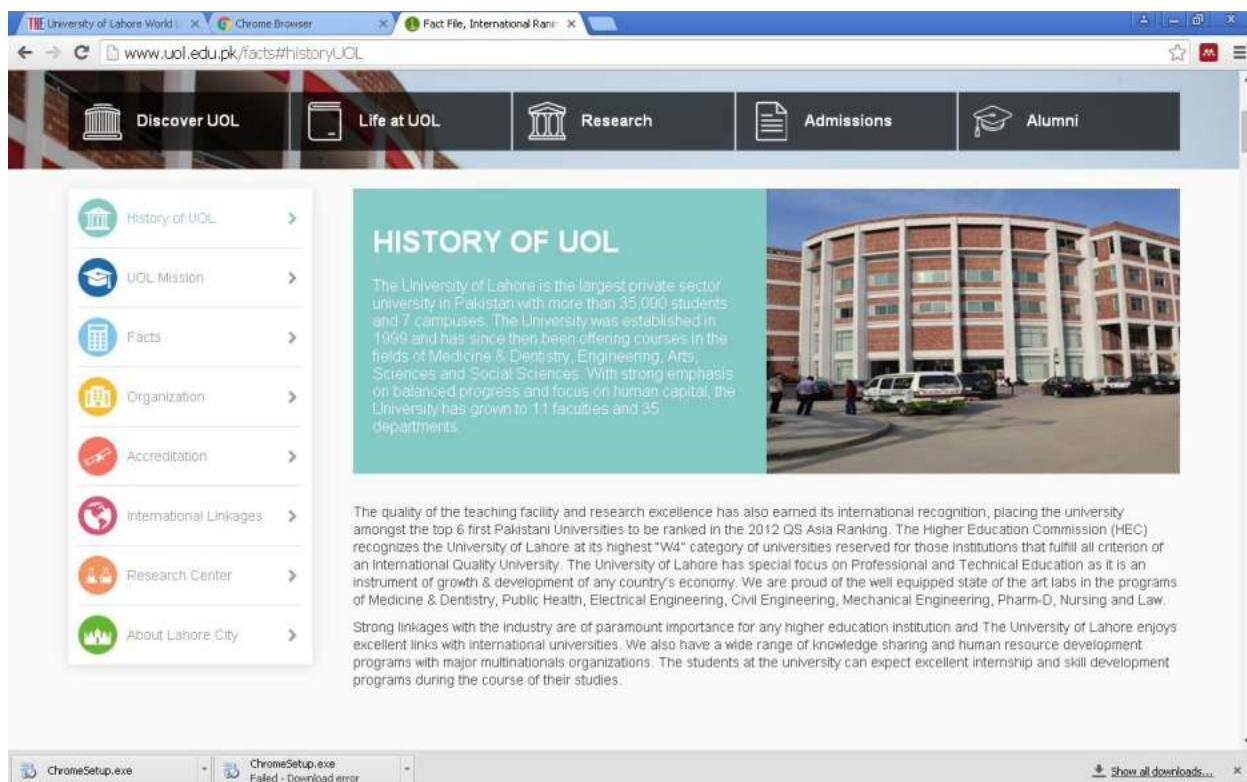
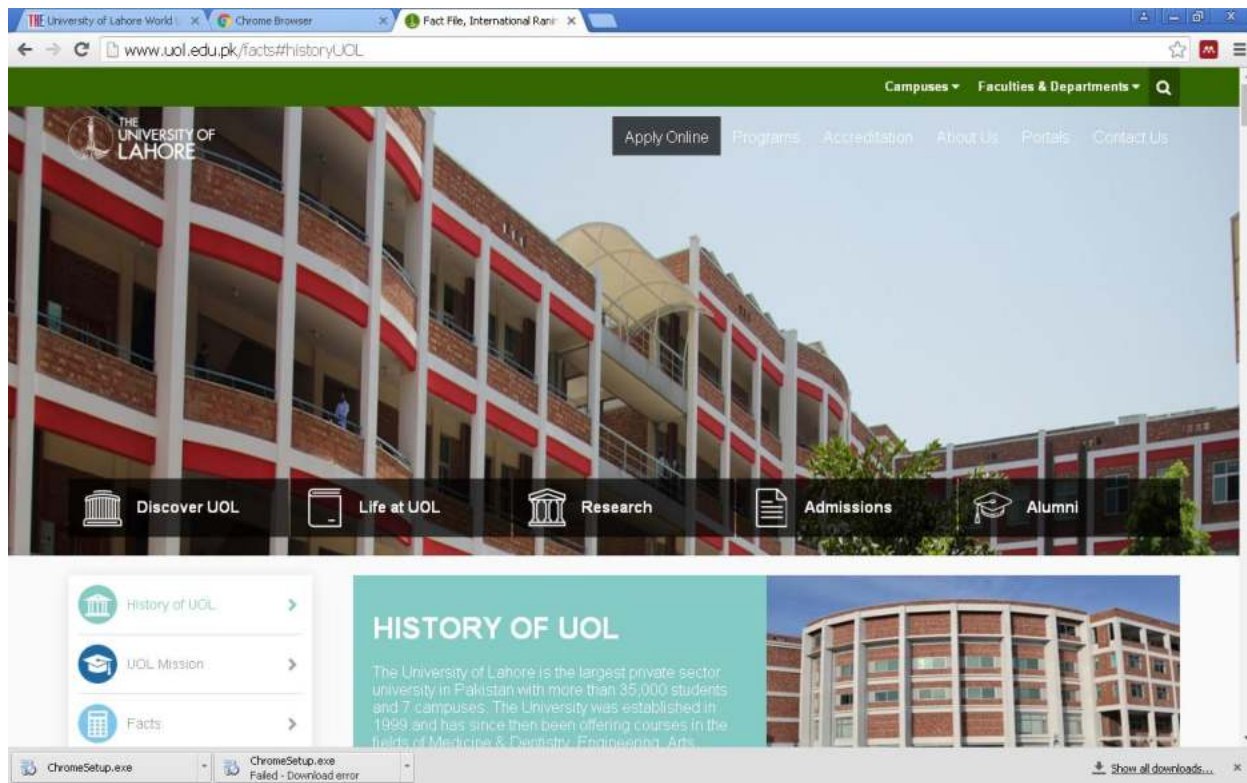
- Plugging High-Speed Rail into Germany's Power Grid
- Al Gore calls for all US energy to be made renewable within 10 years
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- Why Pakistan monsoons support evidence of global warming

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11- The University of Lahore



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INTERNATIONAL LINKAGES

Countries





 Afghanistan	<p>The University of Lahore and Higher Education Institute of Karwan signed MoU on 24 April 2013.</p> <p>In order to develop new precedent to initiate beneficial collaboration in the area of teaching and research, The University of Lahore and Mashal Institute of Higher Education Signed MoU on 22nd October, 2011</p>
 Azerbaijan	<p>Azerbaijan State Economic University and University of Lahore signed MoU on 1st march, 2013.</p>
 Congo	<p>In recognition of mutual educational and scholarly interest, The University of Lahore and the University of SIMON KIMBANGU agreed by mutual consent to sign MoU on 15th April, 2012.</p>
 Iraq	<p>In recognition of mutual educational and scholarly interest, The University of Lahore and the University of Mosul agreed by mutual consent to sign MoU on 29th December, 2011.</p>
 Pakistan	<p>The University of Lahore signed MoU's with following institutes in Pakistan: The University of Lahore signed MoU with AFRO Asian Institute of Radiological Sciences and Medical Imaging (AIRSMI) on 15th February, 2011.</p> <p>Institute of Advanced Dental Sciences & Research (IADSR)</p>

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INTERNATIONAL LINKAGES

Countries

 Sudan	<p>The University of Lahore and Sudan University of Science & Technology agreed by mutual consent to sign MoU on 1st March, 2012.</p> <p>The University of Lahore and National College for Medical & Technical Studies agreed by mutual consent to sign MoU on 1st March, 2012. The University of Lahore and National Ribat University agreed by mutual consent to sign MoU on 1st March, 2012.</p>
 Turkey	<p>HITIT University and The University of Lahore agreed by mutual consent to sign MoU on 15th May, 2012.</p> <p>FIRAT University and The University of Lahore agreed by mutual consent to sign MoU on 15th April, 2012.</p> <p>Fatih University and University of Lahore signed MoU on 11th November, 2013.</p> <p>Suleyman Sah University and The University of Lahore signed MoU on 14th November, 2013.</p>
 Uganda	<p>On 12th June, 2012, The University of Lahore and Islamic University in Uganda entered into memorandum of understanding to jointly set up and run a Medical College.</p>
 Northern Cyprus	<p>The University of Lahore and the European University of Lefke, Northern Cyprus signed MoU on 15 April 2013.</p> <p>In order to develop new precedent to initiate beneficial collaboration in the area of teaching and research, The University of Lahore and the Eastern Mediterranean University signed MoU on 15 April, 2012.</p>

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-  UOL Mission >
-  Facts >
-  Organization >
-  Accreditation >
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-  Research Center >
-  About Lahore City >

RESEARCH

Agri-Bio Technology Park

Aims and Objectives

Agri-bio technology facility was established at the University of Lahore for teaching and research in year 2013. During this period the facility has come of age and now comprises three green houses, cactus garden, tissue culture lab and chemical biology lab among others. Recently a full crop of off season tomatoes has been harvested. Furthermore, an economically important plant (Stevia) has been grown by tissue culture in large quantities. As a result, an agreement has been drawn for supplying 60,000 plants to local commercial growers. This plant is used as zero calorie sweeteners in a large number of preparations. Using the similar techniques of tissue culture, a number of food crops such as potato cultivar and flowering plants such as carnation and lillium.











Targets

- a. Optimization & establishment of Plant cell & tissue culture laboratory
- b. Establishment of "Chemical Biology" laboratory for HI-tech research in medicinal plants for their health potential.
- c. Establishment of "Agri biotechnology Park" for different research and commercial projects
- d. Conservation of rare Cacti germplasm from Pakistan.



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ABOUT LAHORE CITY

Lahore the heart of Pakistan

Lahore is the second largest city of Pakistan and the provincial capital of the Punjab. Historically, it is said to be about 2000 years old. In earliest times, it was a colony of Kangra hill Kingdoms and was a cut-off township on the trade route to Delhi it had hardly any reputation in the Pre-Muslim era. Lahore came to fame with Islam in South Asia, known as the Gardens of the Mughals or City of Gardens, after the significant rich heritage of the Mughal Empire.



Baghdad to Lahore

Lahore has always been a seat of learning and knowledge. Sufism and provisional spirituality became its major discipline. Schools were opened and scholars from Baghdad, Iran and other oriental and occidental regions came to this historical city and settled here. Lahore became famous for poetry. The city flourished academically during the four centuries of the Delhi Sultanate. It became the second imperial capital in 1580 under the Mughal Emperor Akbar the Great.

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Education & Poetry

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Education & Poetry

Education and poetry were the distinction of the city during the reigns of Mughal Emperors Shahjahan and Aurangzeb. The reputation of the city continued even during the disorder of 18th century and it remained to be remembered as the Mughal capital even under the Sikh rule (1780-1846).



Western touch

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Rich Culture

Lahore's culture is unique due to its history. Known as the cultural capital or the Heart of Pakistan for the same reason, the city has been the seat to The Mughal Empire, the Sikh Empire and the capital of Punjab in the Mahmud Ghaznavi's Empire (11th century) and the British Empire.

Lahore Major Attractions

- The Shish Mahal (Palace of Mirrors) was built for the empress and her court and installed with screens to conceal them from prying eyes.
- Great Badshahi Mosque (Royal Mosque) was built in 1673 by the great Mughal Emperor Aurangzeb Alamgir who ruled India from 1658 to 1707 AD.
- The Shalimar Garden was built by the great Mughal emperor Shah Jahan. Construction began in 1641 A.D. and was completed in a year.
- The Lahore Museum, situated on the Mall, was established in 1895, and was for a while curated by Rudyard Kipling's father. The museum contains a fine selection of paintings and weapons.
- Old City of Lahore which is also called "Andron-e-Shehr" in local language which means Inner City was fortified by a city wall during Mughal Period.
- Tomb of Mughal Emperor Jahangir (1569 - 1627) is one of the masterpieces of the Mughal Architecture. Mausoleum is located at Shandara, Lahore in the "Dilkusha Garden", situated on the North-West bank.
- The Lahore Zoo is the second oldest zoo in the South Asia after Calcutta and has been a source of amusement and recreation for families for more than 100 years. Lahore also has a Safari park spreading over more than 200 acres.

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Life in Lahore


The history, institutions, food, clothing, films, music, fashion and a liberal community lifestyle attracts many from all over the country. Lahore is a very festive city, the people of Lahore celebrate many traditions throughout the year, blending Mughal, western and current trends. Lahore has a large Muslim population, Eid ul-Fitr and Eid ul-Adha are main religious celebrated events, people decorate their houses and light candles to light up the streets and houses roads and businesses are lit up for days during these public holidays.



Festive Time

Life is beautiful on the street here in Lahore food street, centre of traditional Pakistani food. Lahore's are known for their love of food and eating. While Lahore has a great many traditional and modern restaurants, in recent years Western fast food chains, such as McDonald's, Pizza Hut, Domino's Pizza, Subway Sandwiches, Dunkin Donuts, Nando's and Kentucky Fried Chicken have appeared all over the city.

There are several places in Lahore famous for its food trends, but recently constructed



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There are several places in Lahore famous for its food trends, but recently constructed food street in the historical location of Lahore (Gawalmandi, Anarkali, and Badshahi) has attracted many tourists around the world. Numerous latest trends cafes with the touch of old, traditional and historical are being opened. M M Alam road in Gulberg Here, dozens of high-class culinary outlets, ranging from Western franchises to traditional, ethnic, or theme restaurants, attracts all classes of Lahore's citizens.

People here in Lahore are known as food lover, which is why many new restaurants are constantly opening. The food business is very competitive. People love to go for dining out at night time. One of Lahore's unique café restaurants is "Coocoo's Den", located in the old city just behind the Badshahi Mosque gives a mix flavor of old and new time.

Anarkali is one of the most famous bazaars here in Lahore, serving many people every day in traditional manner. This market is full of traditional wares like embroidered garments, gold and silver jewelry, glass bangles, leather articles, beaten, and creations in silk.



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The screenshot displays a web browser window with the following elements:

- Browser Tabs:** University of Lahore World, Chrome Browser, Fact File, International Ran..., Clubs and Societies.
- Address Bar:** societies.uol.edu.pk
- Website Header:** THE UNIVERSITY OF LAHORE | OFFICE OF CLUBS AND SOCIETIES. Navigation menu: HOME, ABOUT, CLUBS AND SOCIETIES, EVENTS, REGISTRATION, CONTACT.
- Main Image:** A group of approximately 15 people standing in front of a banner that reads "International Human Rights Day 10 December 2018". The banner is decorated with colorful hands. Below the image, the text "International Human Rights Day" and "10 December 2018" is visible.
- Taskbar:** societies.uol.edu.pk/#, ChromeSetup.exe, ChromeSetup.exe Failed - Download error, Show all downloads...



THE University of Lahore World | Chrome Browser | The University of Lahore > | www.uol.edu.pk/about-us

EDUCATION IS THE MOST POWERFUL WEAPON

The University of Lahore believes in delivering excellence in research and learning. Our ability to add to your academic and social skills will allow you to lead in your professional career. We aim to create high-quality graduates who are practically skilled to enter the world of work. The University of Lahore is recognised as the largest private sector university of Pakistan, and there is no better time to join the university when it is expanding internationally with campuses and networks being developed across the world.


We believe in commercialisation and entrepreneurship and have invested in the establishment of enterprises in order to ensure that our students gain hands-on experience that actually matters for graduating students. Our academic standards are high and we believe in encouraging independent thought driven by creativity and critical insight. You will experience our faculty that is one of the best in Pakistan and believe in research and expression in academic terms.

The experience at a university for a student is not only driven by the excellence in academics and research but the entire experience of being involved in the projects that the university takes on, as well as the experiences that a student gains outside the classroom. We have extensive activities ranging from sports to cultural events, media and society events etc that keep you engaged and entertained across the year.

The University of Lahore has now expanded internationally with its first move to Uganda providing support to setup a medical school. We believe that internationalisation is an important step towards ensuring that experiences are shared both academically and intellectually. We also have the largest international community in a private sector university with students from 15 different countries currently enrolled with us.

We provide extensive support to our students including preparing for career, mentoring, personal and financial support. Your success at The University of Lahore will be the measure of our success in delivering high quality education. I look forward to welcoming you to The University of Lahore.

Awais Raouf
Chairman, Board of Governors



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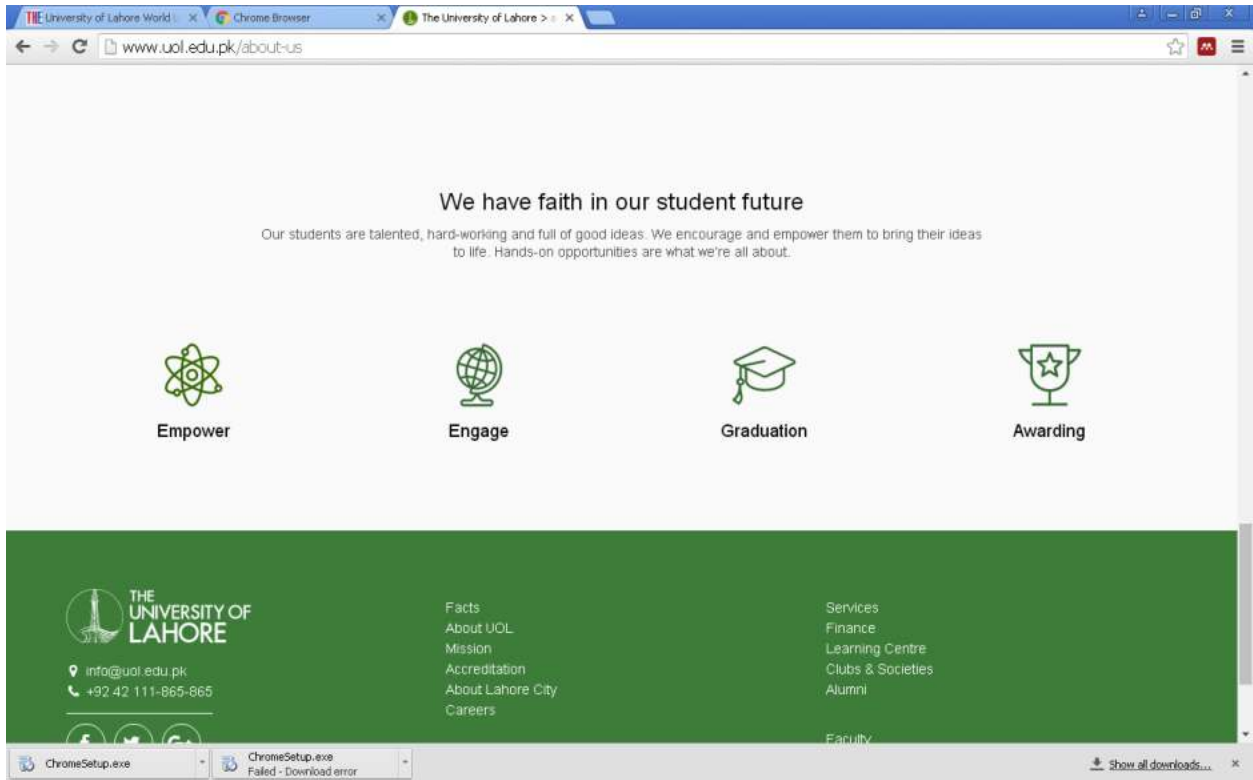
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36,935+ STUDENT BODY	200+ DEGREE PROGRAMS	1535 ACADEMIC FACULTY	23,000+ ALUMNI NETWORK
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Campuses



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Cutoff date: 7/9/2018

Time : 5 pm

Date first visited: 9/3/2018

Times visited: 20

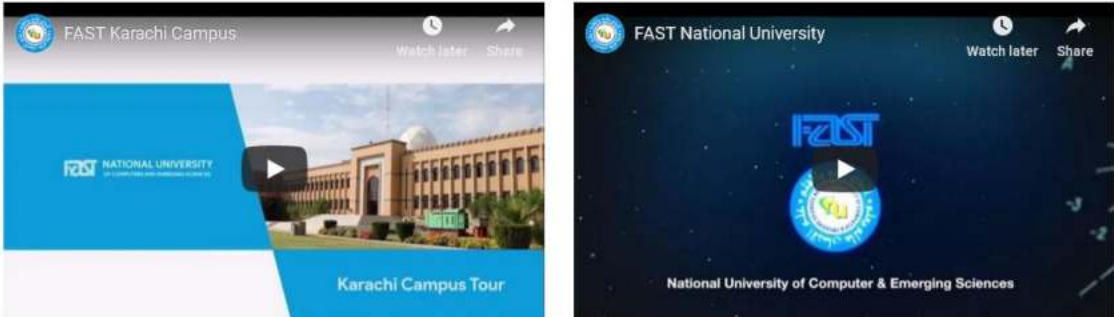
FAST National University | nu.edu.pk/Home

Home Admissions Campuses Students University Services ORIC QEC Contact Us Career

Why FAST?

Founded as a Federally Chartered University in July 2000, the National University of Computer and Emerging Sciences is a premiere University of Pakistan, renowned for quality and impact of its students in the development of local software and other industries. The university has five modern campuses at Karachi, Lahore, Islamabad, Peshawar and Chinliot-Faisalabad. These campuses provide world class educational environment and recreational facilities to about over 11,000 students, around one quarter are female and over 500 skilled faculty members.

Research wings of the university are well recognized, nationally and internationally. They are embarked upon cutting edge research having direct impact on the social, economic and technological needs of Pakistan. Our vision is to become a globally recognized research university of Pakistan within the next decade.



FAST Karachi Campus | Karachi Campus Tour

FAST National University | National University of Computer & Emerging Sciences

HEC NRPJ Form (1).doc | HEC NRPJ Form.doc

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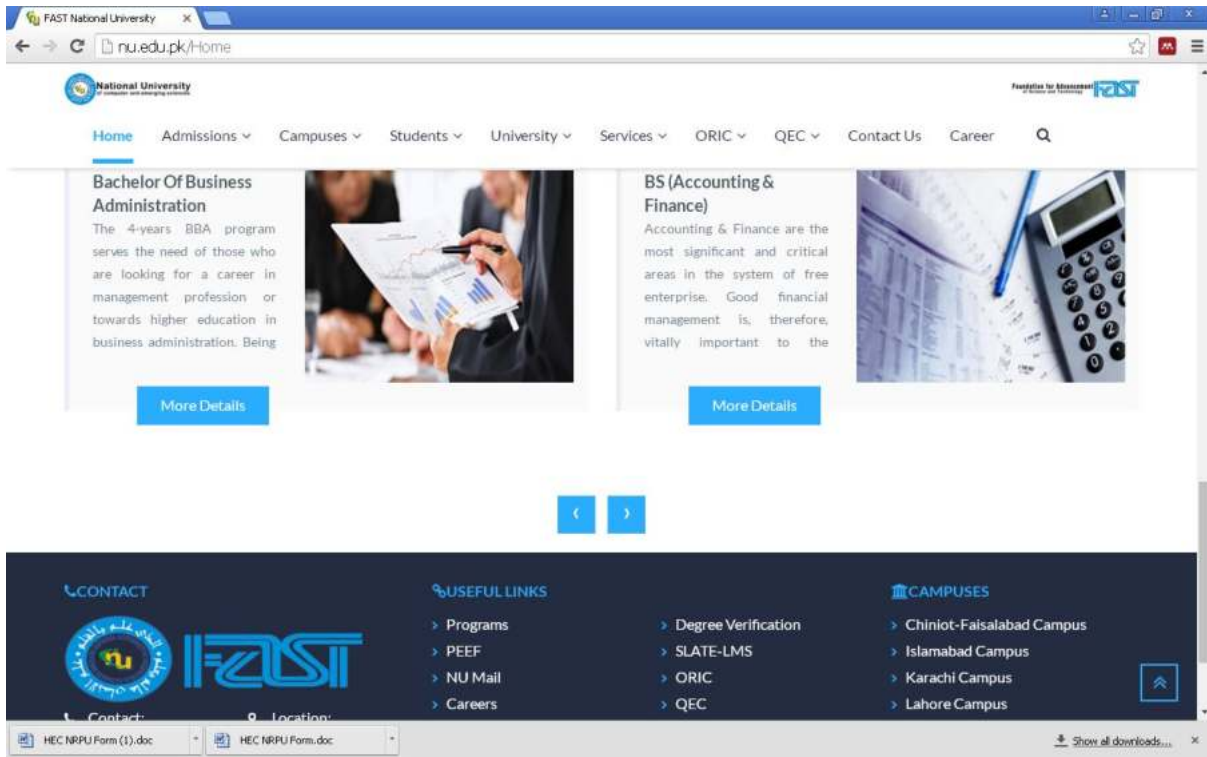
News & Events

- FAST-NU, Chinliot - Faisalabad campus is organizing its third convocation for awarding degrees to the graduates | Happening Date: 27 Oct 2018
- Full Dress Rehearsal of 57th Convocation | Happening Date: 26 Oct 2018
- Edin Diploma in Radiology (EDIR) | Happening Date: 16 Sep 2018
- The Nitty-Gritty of Public Speaking | Happening Date: 10 Sep 2018

More News | More Events

Offered Programs

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Bachelor Of Business Administration

The 4-years BBA program serves the need of those who are looking for a career in management profession or towards higher education in business administration. Being

More Details

BS (Accounting & Finance)

Accounting & Finance are the most significant and critical areas in the system of free enterprise. Good financial management is, therefore, vitally important to the

More Details

CONTACT

USEFUL LINKS

- Programs
- PEEF
- NU Mail
- Careers
- Degree Verification
- SLATE-LMS
- ORIC
- QEC


CAMPUSES

- Chiniot-Faisalabad Campus
- Islamabad Campus
- Karachi Campus
- Lahore Campus

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Foundation for Advancement of Science and Technology

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Premier University of Pakistan

Five modern Campuses in Major Cities Across Country

Renowned for quality and impact of its students in the development of local software and other industries

Provide world class educational environment and recreational facilities

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Research teams of the university are well recognized, nationally and internationally. They are embarked upon cutting edge research having direct impact on the social

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National University
of computer and emerging sciences

Foundation for Advancement
of Science and Technology FAST

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Student life at NUCES

Grooms them for the professional excellence as well as making them a loyal and responsible citizen

lush-green lawns and aesthetically-pleasing scenery of trees and flowers

provide a sense of peace and ideal learning environment

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Additional content date : 6/7/2018

Time : 7 pm

Date first visited: 11/1/2018

Times visited: 10

additional content was added in the student life section. Pictures along with captions were rephrased and changed. Some more points were added in the description under the heading 'Why FAST'?

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National University of computer and emerging sciences
Foundation for Advancement of Science and Technology FAST

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Higher job rate

Highest number among Pakistani graduates

Serving Multi-National companies around the globe

etisalat telenor IBM CISCO HUAWEI Mobilink TERADATA

Why FAST?

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Foundation for Advancement of Science and Technology FAST

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Financial Aid

Supporting students in form of scholarships and interest free loans

More than 2000 students receiving financial assistance

Rs. 60 Million provided by FAST

Rs. 40 Million Provided by other donors

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nu.edu.pk/University/Mission

National University
of computer and emerging sciences

Foundation for Advancement
of Science and Technology **FAST**

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MISSION STATEMENT

Home > University > Mission

In line with the thrust of our faith and glory of our heritage, we shall try our best to play an effective and meaningful role in creating a knowledge based society in Pakistan. This avenue would naturally and seamlessly lead to a civil society with knowledge driven economy.

In furtherance of these general objectives, we shall focus upon acquisition and propagation of cutting edge science and technologies. Recognizing the fact that Information Technology is having a profound impact upon almost every aspect of human activity and changing the shape of our future. We shall retain our focus, for the time being, on producing graduates in Computer Science, Engineering, Business Management and Basic Sciences as well as managers of the highest order who may act as vanguard of the IT Revolution in Pakistan.

We believe that enormous educational potential of computer science, if used wisely, widely and vigorously, can be a powerful vehicle of social equalization.

In line with its philosophy, satisfaction of the financial needs of the poor, and opening doors of opportunities of highly expensive education to the indigent and disempowered, are the greatest moral achievements of the Foundation.

In pursuit of this noble objectives, the University shall faithfully, vigorously and dedicatedly follow that policy to fulfill the requirements of equality of opportunity and social justice.

Realizing that the success of IT revolution requires concerted efforts of many, not a few, we shall establish a formal network of cooperative and collaborative relationship with centers of excellence within and outside Pakistan. The quality of human beings shall remain center of our focus. It shall be our constant endeavor to produce, not only excellent scientists and good technicians, but also well balanced human beings with strong sense of values.

FAST National University

nu.edu.pk

National University
of computer and emerging sciences

Foundation for Advancement
of Science and Technology **FAST**

Home Admissions Campuses Students University Services ORIC QEC Contact Us Career

Founded as a Federally Chartered University in July 2000, the National University of Computer and Emerging Sciences is a premiere University of Pakistan, renowned for quality and impact of its students in the development of local software and other industries. The university has five modern campuses at Karachi, Lahore, Islamabad, Peshawar and Chiniot-Faisalabad. These campuses provide world class educational environment and recreational facilities to about over 11,000 students, around one quarter are female and over 500 skilled faculty members.

Research wings of the university are well recognized, nationally and internationally. They are embarked upon cutting edge research having direct impact on the social, economic and technological needs of Pakistan. Our vision is to become a globally recognized research university of Pakistan within the next decade.

FAST Karachi Campus

Watch later · Share

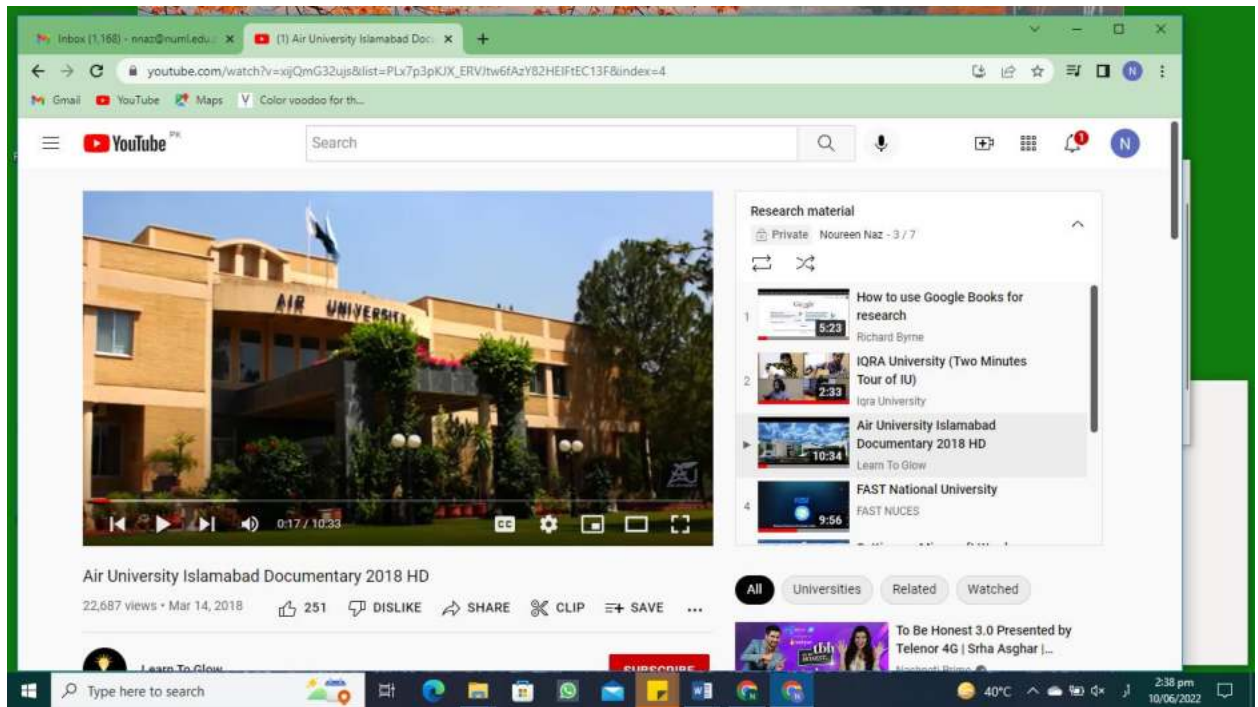
NATIONAL UNIVERSITY
of computer and emerging sciences

Karachi Campus Tour

News & Events

III- B) Screen shots of videos included

1- Air university



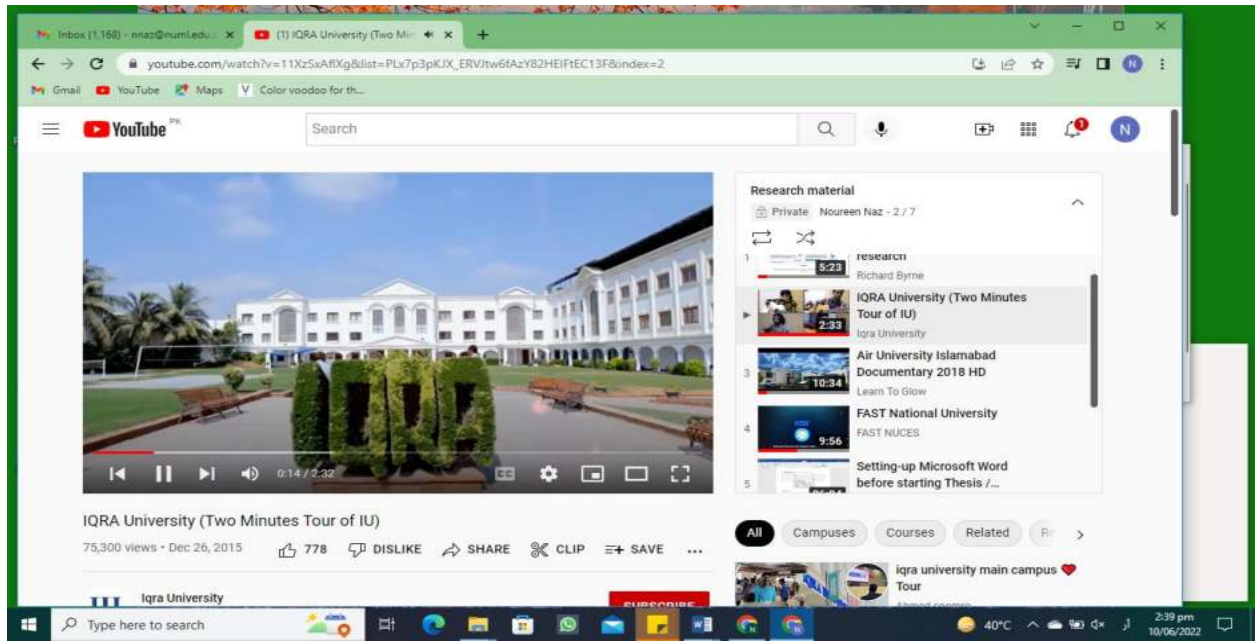
Cutoff date: 9/10/2018

Time : 5 pm

Date first visited: 10/1/2018

Times visited: 05

2- Iqra university



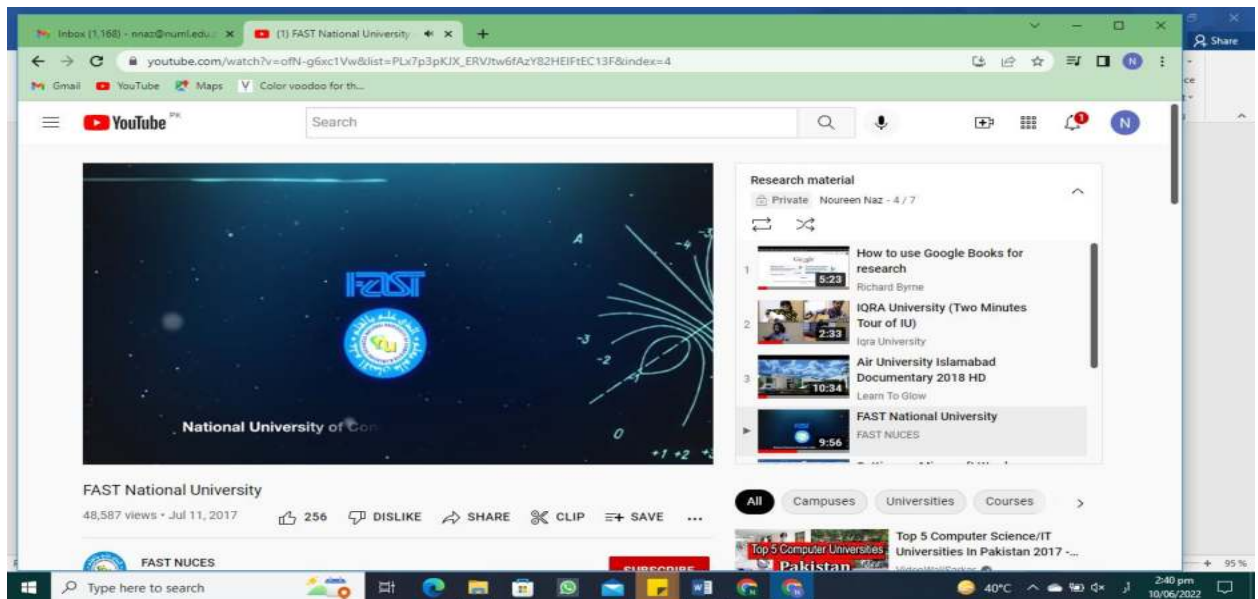
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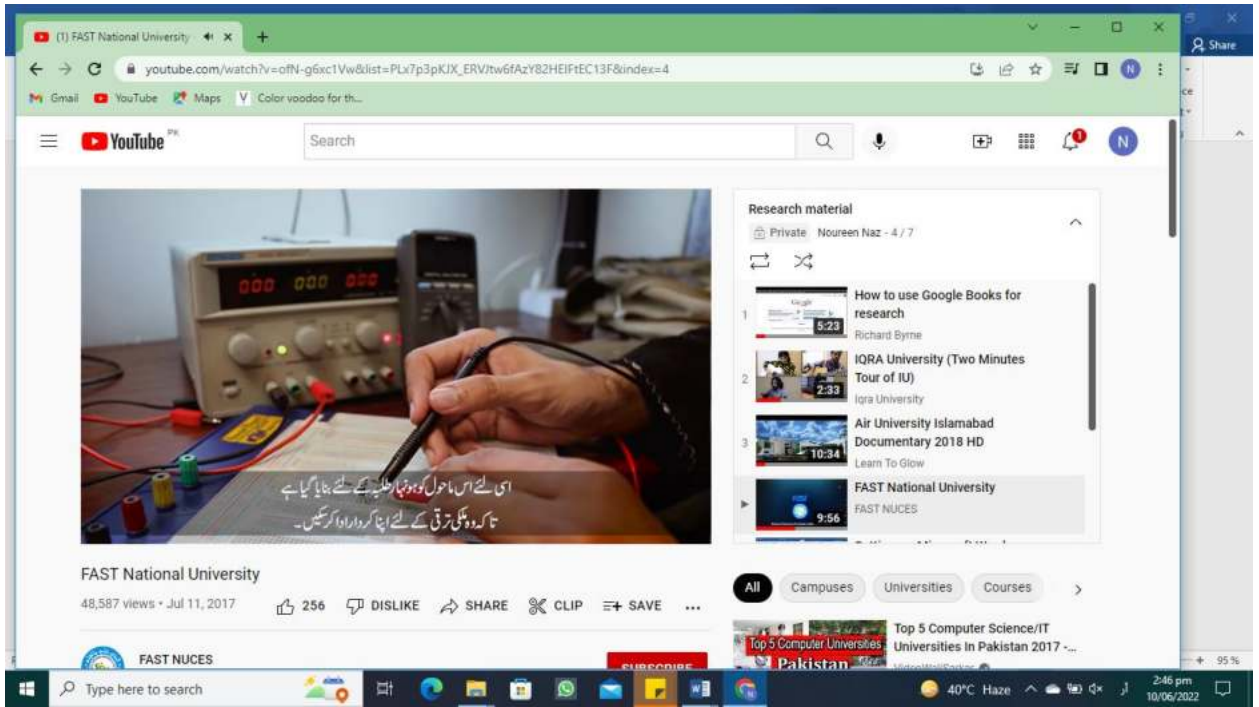
Time : 5 pm

Date first visited: 1/2/2018

Times visited: 20

3- FAST-NUCES





Cutoff date: 10/7/2018

Time : 7 pm

Date first visited: 1/5/2018

Times visited: 20

IV- Observation tables of static text

a. Tables of static visual and verbal text (public)

Visuals

IIUI

Sr.#	Link	Mode	Signifiers	theme
	Home Page	color	Different shades of color green used in all pages and links except 'About the university' in blue	G
	Home Page	Language (Arabic), color, logo	i. university's name in English and Arabic language ii. green colored logo	SS G
	Home Page	slide show of Photos	i. mostly of the university's buildings from the outer side or inner side ii. Islamic architecture, mosque iii. green lawns and patches with beautiful flowers	G G G
	About Us / About	photo	main entrance of the building, parking area, green patches with beautiful flowers	G
	News and Events/ News and Upcoming	photo	Pictures of audience, speakers, presenters and participants in	'EFS'

	Events/Latest Events/ Latest News and Events/ ‘Activity Highlights’		international conference on innovation in teaching and learning.	
	About Us / About	Verbal written text	i. about origin and history of the university. ii. purpose of foundation for an Islamic renaissance	P SS
	Vision/ Mission	Verbal written text	education and research in “Islamic learning, social, natural, applied and communication sciences”	SS
	Vision ‘action plan’ and its two ‘segments’	Verbal written text	new faculties/ centres pre- doctoral and post-doctoral research programs, rich multi- lingual resource centre, especially Law, Jurisprudence, Islamic thought and learning opportunities.	SS
	Vision/ Mission	Verbal written text	‘contemporary knowledge’ and ‘internationalization’	SS
	ORIC/ INTRODUCTION TO ORIC / ORIC OVERVIEW	Verbal written text	creating new knowledge	SS
	ORIC Functions/ Role and Responsibilities / Services	Verbal written text	future plans like “research & development, innovation, Inventions, commercialization, patents, collaborations, arranging	SS and ‘EFS’

			seminars/ colloquia/ symposium/ conferences/ workshops, etc and/or research publication honorarium-	
	‘Scientific & Commercial Facilities’	Verbal written text	Advanced Electronics Laboratories, Applied Biotechnology and Genetic Engineering Lab, Genomics Research Lab (GRL),	SS
	News and Events/ News and Upcoming Events/Latest Events/ Latest News and Events/ ‘Activity Highlights’	Verbal written text	Conference on innovation’ and ‘internationalization’ of education -	SS.
	News and Events/ News and Upcoming Events/Latest Events/ Latest News and Events/ ‘Activity Highlights’	Photo+ verbal written text	i. Headline ‘marks World Teachers’ Day’ Followed by description ii. Group photo of teachers and students	EFS
	News and Events/ News and Upcoming Events/Latest Events/ Latest News and Events/ ‘Activity Highlights’	Verbal written text+ picture Verbal written text+ photo	a tree plantation drive “efforts for Green Pakistan”	G

COMSATS

Sr.#	Link			theme
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		Mode	Signifiers	
	Home Page	color	dark blue/navy blue background with main tab links in white color	G
	Home Page	slide show of Photos	a slide show of Photos of different campuses	G
	Home Page	Photos	all the campuses of the university across Pakistan , the Photos of their main campus buildings, plants and trees-	G
	Home Page	video portal	headings of 'tours', 'visits', 'events', 'students', 'fun' and 'convocation' -media videos and campus tours	G
	Home Page	Verbal written text + PPT slide	the university's rankings on number 131 as Emerging Economies, among the top ten universities of Pakistan as per HEC rankings	EFS
	Home Page	Visual	background color sea green the small pictograms at the left shows buildings, industries, graphs, pie charts, clouds.	G
	Home Page	Photos on a slide show	<ol style="list-style-type: none"> i. An image with bluish hues in the background with different other Photos. ii. a multicolored parachute balloon, iii. blue sky with white clouds, iv. technologies like solar power, trees, v. an image of a human hand trying to reach out these things and technologies, 	All 3

			<ul style="list-style-type: none"> vi. lens, vii. a dart board 	
	News and Events/ News and Upcoming Events/Latest Events/ Latest News and Events/ 'Activity Highlights'	color	white background color	G
	ORIC/ INTRODUCT ION TO ORIC / ORIC OVERVIEW	Logo, color	<ul style="list-style-type: none"> i. university logo with a blue coloured heading background ii. related text placed on light blue and white background. 	G
	ORIC/ INTRODUCT ION TO ORIC / ORIC OVERVIEW	photo	group photo of the faculty	P
	'Go green' campaign and club	Color, language (Urdu), pictogram, slide show of photos+verbal captions	<ul style="list-style-type: none"> i. all green in colour ii. the tag line of the club mentioned in white font i.e. 'Go Green, Save Energy' iii. slogan surrounded by green leaves. iv. another slogan in Urdu language i.e. 'Ghar Ghar ki baat!!' translated as 'talk of the town' in English. v. a green coloured pictogram including clouds, trees, high rise buildings, 	<p>G</p> <p>G</p> <p>G</p> <p>G</p> <p>G</p>

		Picture+caption	<p>mountains, sky, sun, car, solar power wheels</p> <p>vi. slide show of 'Go Green Initiatives Club'</p> <p>vii. another image of the green grass, surrounded by trees and few houses in the background, and two hands planting on this grassy land. A wooden plate at one side of this picture bears the message of this campaign i.e. "Vision/ Mission driven? Help us make the world a better place. One game at a time. Become a partner!"</p>	G G
	'Go green' campaign About us	Verbal written text	<p>i. energy conservation and recycling of natural resources, the principles of green and sustainable architectural design, self-sustenance, collaboration with World Society of Sustainable Energy Technologies (WSSET)</p> <p>ii. the 'Pioneer institution' within Pakistan in addressing such an important global issue</p> <p>iii. series of lectures and video presentations by the experts of the concerned fields, an exhibition, poster competition, exhibition and cleanup of various areas</p> <p>iv. initiatives REDUCE, REUSE AND RECYCLE</p> <p>v. The term 'Sustainability'. Different definitions of sustainability were</p>	G G EFS EFS,G All 3 G

			<p>given. Different ways of maintaining sustainable environment</p> <p>vi. Garbage Collection & Removal, Problems Relating to Climate Change</p>	
	Vision	Verbal written text	one of the top research institutions	SS
	Vision/ Mission	Verbal written text	<p>i. Research and Discovery, Teaching and Learning</p> <p>ii. Outreach and Public Service</p>	SS EFS
	News and Events/ News and Upcoming Events/ Latest Events/ Latest News and Events/ 'Activity Highlights'	Verbal written text	<p>i. a conference on architectural education on analyzing current trends and shaping the future</p> <p>ii. the sustainable development terms like sustainable, environments, values, social, aesthetic- discourse on teachers' training; documenting methods or practices</p>	EFS G, EFS
	The South Asian International Conference' (SAICON) 2018	Verbal written text	like "Innovation" and "digital transformation of the organizations"	SS
	ORIC/ INTRODUCTION TO ORIC / ORIC OVERVIEW	Verbal written text	numerous advertisements, events, activities, workshops, conferences,	P EFS
	ORIC/ INTRODUCTION TO ORIC	Verbal written text+photo	group photo of the faculty "Innovation and Future Studies for Sustainable Development at the COMSTECH Headquarters".	Over all campus sustainability

	/ ORIC OVERVIEW			discourse esp. SS discussed through activity of EFS
	ORIC 'Vision/Mission'	Picture	a dart board on which arrows were stuck on different targets	SS and EFS
	ORIC/ INTRODUCTION TO ORIC / ORIC OVERVIEW	Verbal written text	"promote entrepreneurship amongst CUI faculty, staff and students"	SS and EFS.
	ORIC Vision	Verbal written text	"Transforming research into prosperity"	SS
	Terms of Reference for ORIC research	Verbal written text	entrepreneurship, innovation, technology	SS
	video portal	media videos and campus tours	headings of 'tours', 'visits', 'events', 'students', 'fun' and 'convocation'	G

NUST

Sr.#	Link	Mode	Signifier	Theme
	Home Page	Color, social media icons	i. light and dark blue as the background colour	G

			<ul style="list-style-type: none"> ii. White font in the Visual with the light blue background iii. links of Facebook and twitter 	SS
	Home Page	Sub links	headings around the end of the page labeled as 'in focus', 'studying at NUST' and 'globalization'.	SS
	News and Events/ News and Upcoming Events/Latest Events/ Latest News and Events/ 'Activity Highlights'	Pictograms+ captions, verbal written text	pictograms and large font sized headings or captions. clip art of party popper with the textual news of its RCMS (Research Centre for Modelling and Simulation) celebrating 10 years	SS
	News and Events/ News and Upcoming Events/Latest Events/ Latest News and Events/ 'Activity Highlights'	Photos , verbal written text, pictogram	<ul style="list-style-type: none"> i. event of water conservation walk by the university followed by a sub headline telling about 'water awareness stalls' installed at some places in Islamabad ii. A pictogram of a water drop under which a hand is positioned to hold it 	G G
	News and Events/ News and Upcoming Events/Latest Events/ Latest News and Events/ 'Activity Highlights'	Color, pictogram, logo	<ul style="list-style-type: none"> i. dark blue colored background, ii. another pictogram of the celebration of 'global IAESTE (The International Association for the Exchange of Students for Technical Experience) day with its logo 	G SS
	News and Events/ News and Upcoming	Pictogram, picture	pictogram shows as the top university of Pakistan and a badge showing the number	EFS

	Events/Latest Events/ Latest News and Events/ 'Activity Highlights'		87 illustrated in the text as being ranked at #87 in Asian universities.	
	News and Events/ News and Upcoming Events/Latest Events/ Latest News and Events/ 'Activity Highlights'	pictogram	inter university mock trading competition event reminder with a pictogram of a money saving pot in white color with a blackish background	SS
	News and Events/ News and Upcoming Events/Latest Events/ Latest News and Events/ 'Activity Highlights'	Pictograms, color	<ul style="list-style-type: none"> i. quick links with pictograms of admission, Campus Life, Rector's message, HR portal, MICROSOFT NSAP and library ii. in blue color with a white background 	SS G
	Home Page	photos on the slide show	<ul style="list-style-type: none"> i. The photo of library i.e. brown bricked building of central library. ii. The clouds on the sky with sun lightening up with its rays among the clouds and trees. iii. The brief text at the other side of photo tells about its inauguration, number of books etc. 	SS G EFS
	Home Page	photos on the slide show+captions , color	<ul style="list-style-type: none"> i. side view photo on the slide show was of the clear water running down in the dam. On right side, the text on a blue background information tells to contribute for Diamer Basha and Mohmand Dam 	G

			<p>ii. Another photo of the dam on the slide shows water running down from spill ways. The information about contribution of 5 million PKR that employees contributed to the supreme court and prime minister of Pakistan, Diamer Basha and Mohamand Dams Fund</p>	G
	Home Page	<p>Pictures/photos on the slide show +captions, language (Urdu),logo</p>	<p>background picture was of dry, cracked earth showing shortage of water. At right side, two hands trying to save a water drop. On the left side, a little child/girl is carrying plastic water bottles in her hands. In between these images and after the university's name, main tabs and main logo plus slogan on it, the text on this image was all written in Urdu language that says 'Paani bachao, aagahi muhim' (Save water awareness campaign). The textual slogan is "PANI KI HIFAZAT, MUSTAQBIL KI ZAMANAT" i.e. 'saving water is guarantee of future'. In Urdu, the university's name with other names of its departments i.e. NUST Environmental Club with its green leafed logo and SCEE (school of civil and environmental engineering)</p>	G
	'sites'	<p>Language (Urdu) ,Verbal written text photo</p>	<p>i. the Urdu portal. Urdu language as medium of website display</p> <p>ii. the photo of Islamabad. aerial view of the whole university. surrounded by green areas, vast parking area and clean roads.</p>	<p>SS</p> <p>G</p>
	About Us / About	<p>Logo, color, pictograms, icon</p>	<p>i. identity logo of the university in blue color. blue colour with white colour font bears the full name of the university in the outer circle of</p>	G

			<p>this logo. Inside this circle, pictograms of the sun with its rays and under it a book and moon with a star on both left and right sides of the book.</p> <p>ii. The logo description. After this, there is blue “N” as icon and signature logo.</p>	SS G
	About Us / About NUST identity	Verbal written text	The logo description: the book of knowledge. the symbol of light, wisdom, various branches of knowledge as stated as: “The Book of Knowledge lights up the darkness, through the Vine of Wisdom which bears the two moons and stars facing towards the East and the West, symbolizing the diversity of disciplines and the fruit of knowledge.	SS
	About Us / About NUST identity	photo	Second, the image of the rising sun. The ideas of sustainability involving positivity like hope, progress, change, awareness, spirituality and enlightenment in it by stating “The rising sun ... It emanates inspiration and from the light of knowledge, four birds take wing from the nests of light, and spread out to the four corners of the world, symbolizing the quest for spiritual gratification through knowledge and wisdom.	SS
	About Us / About NUST identity	Verbal written text, color	“Blue is a color that represents the future. It carries all the characteristics of the color blue, like dignity, grace, freshness, professionalism, prudence and resolve”.	SS
	‘About Us’ Mission of the university	photo+caption	An image of a modern man, whose back side of the head was visible, in a corridor with some plants and was holding a blue	EFS

			notebook with logo and caption as 'defining features'	
	NUST's vision	Verbal written text	<ul style="list-style-type: none"> i. Centre of Excellence among Higher Education Institutions, ii. the transformation of Pakistan towards a rapidly developing Knowledge Economy 	SS SS
	Vision/ Mission	Verbal written text	<ul style="list-style-type: none"> i. focus on Creativity, Innovation and Entrepreneurship ii. Social, Economic and Environmental challenges 	SS G and SS
	Vision/ Mission	Verbal written text	principles of Merit, Transparency and Fair Play; developing students' "leadership and social skills, to act as agents of change within the society; linkages with international organisations and partner universities; raising awareness among local and international Pakistani diaspora including Alumni base	EFS
	Vision/ Mission	Verbal written text	conducive learning and working environment for students and staff	G
	RECTOR'S MESSAGE (on 'About Us' page)	photo+ Verbal written text	<ul style="list-style-type: none"> i. photo of the then Rector- ii. the needs of a fast changing world iii. the positive changes in the 'environment' of the university i.e. both the academic as well as physical environment- iv. "research-led, socially-engaged university, distinguished by its multi-disciplinary programmes and focus on emerging technologies"; 	SS G All 3

			<p>v. “through need based innovations”; “a leading role to propel the country into knowledge-driven economy” and “...developed a knowledge ecosystem which inspires entrepreneurship and stimulates high-impact research” The metaphor of ‘ecosystem’ in terms of knowledge</p> <p>vi. commitment to scientific leadership</p> <p>vii. The University’s future roadmap will be aligned so as to spearhead national efforts to achieve Sustainable Development Goals and Vision 2025 of the Government.....is imbibed in our plans to establish Pakistan’s first Science and Technology Park, aimed at transiting the country towards high-tech export oriented economy</p>	<p>SS</p> <p>SS</p> <p>SS</p>
	<p>News and Events/ News and Upcoming Events/Latest Events/ Latest News and Events/ ‘Activity Highlights’</p>	<p>photos+ Verbal written text, pictogram, photos</p>	<p>the headline ‘NUST holds water awareness walk’</p> <p>details in the text about the event after which a picture of two male participants wearing NUST caps. One was wearing national dress while the other was wearing jeans and shirt holding a banner. A slogan on the banner was written as “JAHAN NEELA, WAHIN HARA BHARA” and a pictogram after it of green globe with hands under it. other Pictures of the walk which are</p>	<p>G</p>

			group photos of the awareness walk and a large number of participants.	
	Networking and Partnerships / Institutions	Verbal written text	<ul style="list-style-type: none"> i. Internationalization and Global Perspective; strong international linkages” at minimum expense ii. “the latest technological advancements”, “student and faculty exchanges” and “active research collaborations”- 	SS
	Networking and Partnerships / Institutions	photo+ Verbal written text , logo+caption, color,	<ul style="list-style-type: none"> i. in white color font over a black background as “PAKISTAN CHAPTER OF TALLOIRES NETWORK (PCTN)” ii. a black colored image of two persons. In the image, a man trying to reach the other man’s hand to help him climb the mountain. On the right side in the image, a quotation by our national poet Allama Iqbal was, “Make hearts the Pivots of Compassion and Commitment”. On the left side of this image, a logo with the main caption ‘The Talloires Network Pakistan Chapter’ with a background in blue colour. The sub caption was a slogan or vision given as “strengthening civic roles and social responsibilities of higher education and building a global movement of engaged universities”. iii. The logo of a white colored globe with one blue and one red strip placed around it like an open belt. iv. details about network. 	SS EFS G G

	Networking and Partnerships / Institutions	photos+ Verbal written text	‘seminar and conferences’ with selected Photos from the events and details about them.	EFS
	Networking and Partnerships / Institutions	Verbal written text	<ul style="list-style-type: none"> i. committed to promoting community service, civic engagement, and service learning in higher education. dynamism of Pakistani Universities’ youth. ii. social responsibilities of higher education by building a national movement of engaged universities iii. their research and teaching missions- 	EFS EFS SS
	Networking and Partnerships / Institutions	Verbal written text	“Curriculum development for service learning”; “Build a culture of volunteerism in Pakistani academic institutions”; “Discussions on forging a collective vision for advancing in the field of community engagement”; “Promoting Vision/ Vision/ Mission and vision of the Talloires Network across all 136 universities in Pakistan”; “Technology to bring positive change”; “Involving other key organizations in Pakistan as partners in this initiative, such as British Council and HEC”; “Vibrant media strategy for sustainability”.	All 3 discourses.
	‘what PCTN does’	Verbal written text	a major sustainability measure i.e. ‘community service activities’ in different ways. activities include publishing bi-annual newsletters; maintaining a website; holding seminars and conferences on various community issues in Pakistan; Giving out best community service awards; cross training activities; making community service a part of curriculum	EFS

	Center for Innovation and Entrepreneurship (CIE)	Verbal written text + flow chart. Color,	<ul style="list-style-type: none"> i. The flow chart of the main departments involved in this system, RIC Eco-system ii. their sub departments and corresponding main responsibilities.in different background colors like dark blue, maroon, light blue and green while the written text in white font. The last slot showing their functions/responsibilities written in white font with green background color. iii. Verbal text about ‘innovation and technology’ iv. Not only one centre of ORIC/ INTRODUCTION TO ORIC / ORIC OVERVIEW, involved many departments, institutions and centres having their own specialized functions. one of the unique universities in Pakistan where this type of planning and facilities are available. 	SS G SS All 3 discour se.
	Networking and Partnerships / Institutions	photos	Photos (small) of the different institutions, affiliated colleges or schools and centres of the university and the descriptive verbal text available when particularly that link is accessed.	P
	Networking and Partnerships / Institutions	Photo+caption	The Institutions mentioned on the website like TechOne, Professional Development Centre (PDC), Career Development Centre, Technology and Innovation Support Centers (TISCs) etc. Several centres have been established like Centre for Counselling and Career Advisory (C3A);	SS

			U.S.-Pakistan Centre for Advanced Studies in Energy (USPCAS-E); Research Centre for Modelling and Simulation (RCMS); CENTRE FOR INTERNATIONAL PEACE & STABILITY (CIPS); Research Institute for Microwave and Millimeter-Wave Studies (RIMMS); NUST Institute of Policy Studies (NIPS).	
	Technology Incubation Centre (TIC)	photos + Verbal written text, color	<p>i. An office set up in the centre where young people working on lap tops and desktops. With the caption ‘plug n play offices: Dedicated, furnished offices with no administrative hassle’.</p> <p>ii. photo of the building of TIC. the blue sky filled with clouds and the green plants and area surrounding the building. Along side the photo with a blue background color, written in white font that “TIC is nestled in the serene, lush environment of NUST campus”. “serene, lush environment” were capitalized and written in bold style.</p>	G G
	TTO (Technology Transfer Office)	Flow chart+ Verbal written text	description in written form and as a flow chart to show its organization of functions of the university.	SS
	ORIC part of CIE at NUST	Verbal written text+ sub links	several other tabs including further information about the endeavours of the university like ‘Research’, ‘Innovation & Commercialization’, ‘INTELLECTUAL PROPERTY OFFICE (IPO)’, ‘NUST Technology Transfer Office (TTO)’,	SS

			celebrating an event around the green patches of the university. On their heads, they were wearing paper crowns of green and yellow colors in the shape of flowers or leaves.	
	Campus Life	photo	a modern female student standing in a corridor adorned with green plants in the background and noting down something on a notebook.	G
	Student Affairs (Campus Life)	Photos +Verbal written text	showed different activities like academic calendar, sports, policies, publications, student centre, support and services, student achievements, radio, day care, transport etc. a quite long list of 'clubs and societies'. To improve the creative, artistic, literary and co-curricular activities, this office provides well organized opportunities	P

Air University

Sr.#	Link	Mode	Signifiers	Theme
	Home Page	Color	the background color is of navy blue color while the written text is in white colored font.	G
	Home Page	Logo+caption	the logo of university with name. The logo consists of the acronym of university with a bow like structure designed as an eagle-the main symbol of university's identity.	EFS

	Home Page	photo	the first image taken at night, is the exterior view of the university's main building with lights on. At the bottom of the picture, the university's name was written again with a headline of 'latest news' e.g. about Alumni reunion, 2018. few circles with blue boundaries exhibited Photos such as convocation shield presentation, sports day, seminars, scientific model exhibition etc.	P
	Home Page	picture on the slide show+caption	a dam exhibiting blue water and green patches around. captioned as "Air University donates Rs. 2.154 Million for Diامر-Bhasha and Mohmand Dams". a picture of hand trying to hold water drops was captioned in blue font as "Save water, it will save you".	G
	News and Events/ News and Upcoming Events/Latest Events/ Latest News and Events/ 'Activity Highlights'	photos	section showing pictures of different events along with the headlines.	P
	News and Events/ News and Upcoming Events/Latest Events/ Latest News and Events/ 'Activity Highlights'	photo+ Verbal written text	a message from the vice chancellor along with his photo.	P

	News and Events/ News and Upcoming Events/Latest Events/ Latest News and Events/ 'Activity Highlights'	Social media icons, sub links	End of page with the university's address and contact numbers under which google map location of the university. another section with heading as 'Facebook updates'. Another section of multiple links and sub links like vision, admission, Research, QEC, Quick links etc. the page ended with small facebook and twitter icons.	P and SS
	News and Events/ News and Upcoming Events/Latest Events/ Latest News and Events/ 'Activity Highlights'	photo	a view of the entrance of a building of the university covered with green plants.	G
	News and Events/ News and Upcoming Events/Latest Events/ Latest News and Events/ 'Activity Highlights'	Verbal written text.	<ul style="list-style-type: none"> i. excellence in teaching and research through "professional knowledge" ii. The qualities like "integrity of character", "a keen sense of social responsibility" and "a passion for lifelong learning". 'creating a conducive environment' and 'the development of a prosperous, peaceful and enlightened society'. 	SS EFS
	News and Events/ News and Upcoming Events/Latest Events/ Latest News and Events/ 'Activity Highlights'	Verbal written text	<ul style="list-style-type: none"> i. aspires to be among the leading national universities with sub frames of 'excelling in teaching, learning, research', 'innovation' ii. 'public service' 	SS EFS

	News and Events/ News and Upcoming Events/Latest Events/ Latest News and Events/ 'Activity Highlights'	Verbal written text Photo gallery	enlists main events with years on the left column of the page while the right column gives detailed description of the particular event. The 'Picture gallery' representing different events	P and EFS.
	News and Events/ News and Upcoming Events/Latest Events/ Latest News and Events/ 'Activity Highlights'	photo+ Verbal written text	<p>headline as "German Ambassador visits Air University".</p> <ol style="list-style-type: none"> i. about "the state-of-the-art building and an overall aura of modernity by labeling it as a "modern", "friendly" and "green" University which is right way headed into the future" ii. The ambassador's concerns about lack of "Pakistan's present input to research and education" and inability "to produce export quality bicycles". iii. Germany's readiness "to support and cooperate in various areas of development in order to empower Pakistani youth and make Pakistan leap forward in the 21st century". iv. The areas of enhancing cooperation e.g. "in the areas of youth development & education, climate change & energy, and modern economy" 	G SS EFS. G,SS
	News and Events/ News and Upcoming Events/Latest Events/ Latest	photo+ Verbal written text	'International Conference on Radicalization: Perceptions, Realities and Challenges of Campus Life'	EFS. all the themes

	News and Events/ 'Activity Highlights'		The Conference on the topic of different aspects and challenges of 'Campus Life'	of campus sustainability.
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Karakoram International University

S r · #	Link	Mode	signifiers	Theme
	Home Page	Color, logo, pictogram	the blue and yellow (mustard) tabs as in the logo of the university, the color yellow and blue. The logo of the university in triangular shape in which a pictogram of flaming torch.	G SS
	Home Page	Verbal written text, Language (Urdu), Language (Arabic)	The name of the university both in Urdu and English; Arabic the language of Quran and all the religious prayers of the religion Islam.	SS
	Home Page	Language (Urdu), social media icons	i. an option of language (English/Urdu) ii. university's social media apps i.e., Facebook, Twitter, YouTube, Linked in. The icons of social media apps	SS SS
	Home Page	Logos+ caption, photos on the slide show, color, Language (Urdu)	refers to green movement . three logos on the top right of slide i.e. of government, of Gilgit Baltistan, Environmental Protection Agency (GBEPA), of KIU. The background light green in color. In the centre, three flowers without stalk shown in different shades of green color.	G

			<p>slogan underneath i.e. “Clean, Green Pakistan” translated and written in Urdu language as well as “Saaf Sabz Pakistan”. Underneath this, another famous quote mentioned as “Safai nisf emaan ha” i.e. “Cleanliness is half faith”.</p> <p>At the top right of the bottom of the page, written “Clean Green Pakistan (Cleanliness Day Celebration)”.</p> <p>Around the end, white flowers on the green grass land.</p>	G G
Home Page	logos+ Verbal written text, language (Urdu)	<p>i. the green drive in collaboration with the government as well as the authentic organisation of environmental protection. logos of respective organizations.</p> <p>ii. The textual slogans underneath these visuals in both the languages i.e. Urdu and English.</p>	G SS	
Home Page	Color, banner, slide show + captions, verbal written text	On the slide show, a banner using blue, orange and yellow colors in its composition. It was like a painting of children painting this message with the slogan “Our Actions are Our Future”. Under it, was written : “A# ZeroHunger World by 2030 is possible”.	G Campaign- EFS	
Home Page	banner+ captions, Verbal written text	On the top of the banner, ‘Food and agriculture of the organization United Nation’ ;‘Sustainable development goals’; ‘Celebrating 40 years in Pakistan’; ‘World food day 16 October, 2018’ placed side by side parallel to each other illustrating the collaborators, the purpose/ main goal, and the event in Pakistan respectively. arranged by the Department of Agriculture and Food Technology, Karakoram International University , Gilgit.	G while the awareness drive - EFS SDGs – All 3	

Home Page	Color, Verbal written text	<p>i. Home Page has another section divided into three main sections i.e. ‘Latest News’ in blue font, ‘Recent research’ in mustard yellow tab and ‘upcoming Events’ in the end.</p> <p>ii. the useful links like centre of career development and counselling; campus facilities; ECDC, KUI (The Early Childhood Program centre) ; Digital library; KUI newsletter; Microsoft for all etc. ; a centre specifically focussing on early childhood education and training. KUI (The Early Childhood Program centre)</p> <p>iii. knowledge field of ‘early childhood education’</p>	EFS EFS SS
Vision/ Mission	photos + Verbal written text	small photos at right hand side parallel to the written text. One photo was an overhead view of green area surrounding the campus captioned as ‘main campus’. The other Photos were of TamTam, Administration Block, Bio Safety Lab. concern over green areas, environment, scientific solutions, mobility and administrative skills.	All 3
Vision	Verbal written text	The sub frame of “commitment to social development” and “evolution of peaceful and pluralistic societies in the mountainous areas of Pakistan and geographically similar regions elsewhere”	EFS
Vision/ Mission	Verbal written text	<p>i. the sub frames of ‘development’ and ‘knowledge’ as: “To promote human development at all stages of life; through growth, evaluation, synthesis, dissemination and application of knowledge” Another sub frame mentioning sustainability</p>	SS G

			efforts is to “provide a service that values sustainable, humanitarian, and economic development of the environment”.	
the Values or Goals on Vision/ Mission link	Verbal text	written	“Excellence in scholarship, careful management and ethical considerations; acceptance of diversity and pluralism w.r.t gender, race, color, beliefs, culture and religion; Holistic development of its students, faculty and staff as managers and critical users of knowledge and human resource; A culture of inquiry, creativity, critical thinking, and free exchange of thought; Relevance of its functions to the goals of development of individuals, society and environment”	EFS
‘Strategy’	Verbal text	written	“Recruit and retain highly qualified faculty; merit and quality in the admission of students; interactive and student centred learning; Undertake continued faculty and staff development to maintain excellence in quality”.	EFS
‘Strategy’	Verbal text	written	strategies “deliver knowledge content that is relevant to the local context and that capitalizes on local comparative advantages; Forge partnerships and networks with global knowledge networks for exchange of relevant knowledge, faculty, and student; Promote multidisciplinary integration of educational programs in order to enhance the versatility and entrepreneurship of its studies; Facilitate “access” through “distributive” learning and “decentralization” (KIU is a multi campus University); Seek multiple avenues for resource development”.	SS
‘Strategy’	Verbal text	written	“Develop a culturally symbolic (architecture) and inviting campus environment”	G
Integrated Mountain	Sub links		a screen of Integrated Mountain Areas Research Center on the Home Page and some tabs	G

Areas Research Center		including overview, Vision/ Mission, Objectives/ Aims & Objectives ,mandate, Thematic Areas, Collaboration, Our staff	
Over View of 'Integrated Mountain Areas Research Center' -	Verbal written text	<p>importance of Northern Mountainous Region of Pakistan “the most glaciated landscape on earth outside the Polar Regions, also known as water towers of Asia”.</p> <p>as “a living nature museum to study the unique geological, geographic, ecological and socio-cultural features of mountainous areas and societies”. as it is stated: “in Gilgit which is situated in at the confluence of the world’s great mountain ranges of Karakoram, Himalaya, Hindu Kush and Pamirs, strives to promote knowledge on mountains and associated resources”. This centre has been established “In order to institutionalize the academic, research and development initiatives.... knowledge of mountain societies and resources”. The practical proof of this vision is through establishment of the Integrated Mountain Areas Research Centre (IMARC) with the financial and technical support of Social, Economic and Environmental Development (SEED) Project for Central Karakoram National Park (CKNP), an initiative under Pakistan-Italy Debt for Development Swap Agreement.</p>	G
'Objectives' of IMARC (Integrated Mountain Areas Research Center)	Verbal written text	<p>i. ‘development of human resource for sustainable mountain development’ stated as: “To initiate academic programs to develop qualified human resource to cater for the needs of sustainable mountain development including teaching, learning, and research”</p> <p>ii. “to promote research on diverse fields of mountain studies”</p>	SS SS

‘Objectives’ of IMARC (Integrated Mountain Areas Research Center)	Verbal written text	<ul style="list-style-type: none"> i. “institutional development programs including capacity-building, community outreach, training, and policy input to promote sustainable mountain development in Pakistan and elsewhere in the world”; and ii. ‘mountain knowledge’ i.e. “To act as a knowledge hub on mountains, associated resources, and societies”. iii. The mandate of Integrated Mountain Areas Research Center carries three major frames for ‘promoting mountain knowledge’ in related disciplines i.e. “Running Academic Program in Thematic Areas; Conducting Research on Mountain Issues; Capacity building”. 	<p>thematic areas of knowledge -SS</p> <p>environmental concern-G</p> <p>SS</p>
‘Objectives’ of IMARC Thematic Areas	Verbal written text	The areas of”Applied geology, geo hazards, and sustainable mineral resource development; Atmospheric sciences and climate change; Mountain Forestry; Wildlife Ecology, Conservation, and Management; Glaciology and mountain hydrology; Water resources management; Rangelands Conservation and Management; Innovative technologies for territorial management (GIS & Remote Sensing); Rural development and management; Sustainable mountain agriculture; Tourism and hospitality studies; Food Security and Climate Change; Disaster studies; Biodiversity and Conservation; Soil Sciences; Livestock management; Mountain societies and languages”	G SS
‘collaborations’ of IMARC	Verbal written text	e.g. “Chinese Academy of Sciences (CAS),International Fund for Agricultural Development (IFAD), Melbourne University Australia, Kashgar University China, Planning & Development Department, Government of	G and SS

			GB, Forests and Wildlife & Department Government of GB, Agriculture, Livestock & Fisheries Department, Government of GB, Labour, Industries and Minerals, Government of GB, Ministry of Climate Change Islamabad, World Wildlife Fund for Nature (WWF-Pakistan) etc”.	
Home Page	photo		the centre screen showing the photo of graduates who organised job fair by career development centre. ‘career development activities’	EFS
‘Karakoram University Business Incubation Center’	Verbal written text		<ul style="list-style-type: none"> i. another center “to impart the basic entrepreneurial thinking to the students while they are studying”. ii. the centre is implementing this as a project of HEC through linkages with leading NGOs of the area working on the similar themes “with a focus on creating an entrepreneurial ecosystem in the university” through seminars, workshops, and training programs. 	SS EFS
Vision of ‘KIU Business Incubation Center’	Verbal written text		‘entrepreneurship in mountain ecology’ i.e. “To transform the socio-economic conditions of the mountain communities through the spirit of entrepreneurship”	SS
Mission of ‘KIU Business Incubation Center’	Verbal written text		the sub theme of ‘creativity and innovation’. “To train the future generation of entrepreneurs in Gilgit-Baltistan by providing required skills in a conducive environment that fosters creativity and innovation”.	SS
‘Activity Highlights’	Verbal written text		“such as a series of seminars and workshops on basics of enterprise development in collaboration with leading organizations and the first-ever Business Plan Competition and implementation of ideas were offered working	EFS

			under the supervision of mentors to turn their raw ideas into successful start-ups”.	
‘Center for Research on CPEC (KIU-GB)’	Verbal written text+ Photo	important center for the university-investigate the implications of CPEC and policy making. the heading was accompanied by a small picture of two flags i.e Pakistani Flag and Chinese flag placed beside each other. The areas of “Natural Hazards; Bio-Diversity and Conservation; Environmental Issues; GIS and Remote Sensing; Economy and Trade; Businesses, Marketing, and SMEs; Social Development; Agriculture and Food; Businesses, Simulation, and Modeling; ICT; Silk Route: Culture, Heritage; Conflicts and Indigenous Rights”.	G and SS	
‘green campus’ (link Home Page)	Verbal written text, sub links, color	two headings ‘UI GreenMetric Guideline 2018’ and ‘GreenMetric Questionnaire’ in green tabs at the top of the page. Under the heading ‘Participation of KIU in UI GreenMetric World Ranking 2018’, a picture of the officials praying after plantation of some plants to start the drive. the Pdf copy of ‘GreenMetric Questionnaire’. A separate whole page dedicated to the concern of ‘green campus’ giving guidelines and providing the questionnaire for measuring ‘Greening’ of universities and showing participation in GreenMetric World Ranking of universities	G	
‘green campus’ (link Home Page)	photos+ Verbal written text, language (Urdu) photos + captions	i. some newspaper cuttings in Urdu language about the activities for making it green campus. The first was ‘Horticulture society and youth parliament organized cleanliness drive to remove plastic from the campus’. published in roznama	G	

			<p>‘wateen’ dated Thursday, 29th November, 2018. Details about the event were disseminated in the text of newspaper with one or two related Pictures. Daily rehbar-e-Gilgit, Daily Sada-e- Gilgit, Daily ‘Salam Gilgit Baltistan’, Daily Baad- e- Shimaal, Daily K-2, Daily ‘baidaar’ Gilgit Baltistan. Cleanliness day was celebrated by faculty and students in the photos.</p> <p>ii. headline “10,000 plants to be planted and taken care of in KIU”, Vice Chancellor. accompanied by the picture of VC KIU Prof. Dr. Attaullah Shah in the issue of Daily ‘Wateen’.</p> <p>iii. ‘Clean and Green Pakistan Movement’ was the heading of the next news. Along with the photo of students collecting the garbage from the campus, the details of the event. The photo of the yellow dustbins was a step towards ‘clean, green Pakistan’.</p> <p>iv. a publication in Daily rehbar-e-Gilgit Baltistan. different photos of students and faculty participating in the drive along with the text.</p>	G G G
‘green campus’ (link Home Page)	banner	The banners of ‘Clean Green Pakistan’ and ‘World Food Day’	G	
‘green campus’	Photos +caption	i. photo captioned as ‘Plantation day at main campus Gilgit’ showing the students trying to start the plantation.	G.	

(link Home Page)		ii. 'Plantation and flowering at Hunza campus' was the caption of the next picture showing some students and teachers planting a flowery plant.	G
'green campus' (link Home Page)	Verbal written text	<p>i. Letter from University of Indonesia to the VC of KIU with the subject as 'Invitation to 2018 UI GreenMetric World University Rankings on Sustainability'.</p> <p>ii. The news with headline 'KIU becomes in world 1000 universities adopting Green Metric Initiatives' showed the details with the initiatives including the use of Renewable energy, green buildings, environment-friendly design etc. The certification done by University of Indonesia appreciating "Greening the campus with more plantation, waste Management, Cleanliness of Campus, involving students in these initiatives to create awareness as well".</p> <p>iii. The certificate awarded as "the 669th World's Most Sustainable University" on 19th December, 2018.</p>	G G All 3
News and Events/ News and Upcoming Events/Latest Events/ Latest News and Events/ 'Activity Highlights'	photos+ Verbal written text	Details about different memorandums of understanding for sustainability issues like energy conservation, research and development issues between the university and other organizations along with the Pictures of officials signing the agreements were present on the 'news' link e.g., 'MoU signed between KIU and Pakistan Council of Renewable Energy Technologies'; 'MoU signed between KIU and CRDO at Islamabad'.	G

News and Events/ News and Upcoming Events/Latest News and Events/ 'Activity Highlights'	Verbal written text	The news that “KIU becomes in world 1000 universities adopting Green Metric Initiatives” during 2018 certified by University of Indonesia. Environmental concerns includes “the use of Renewable energy, green buildings, environment-friendly design etc”. The VC’s advice to develop an implementation plan including “Greening the campus with more plantation, waste Management, Cleanliness of Campus”.	G
News and Events/ News and Upcoming Events/Latest News and Events/ 'Activity Highlights'	Verbal written text	the news about “MoU signed between KIU and Pakistan Council of Renewable Energy Technologies to establish Centre of Renewable Energy and Appropriate Technologies (CREAT)”. Both the organizations will jointly arrange seminars, conferences, and workshops for creating awareness national and international Conferences on “Renewable Energy Technologies including Solar PV and Thermal, Biogas, mini hydel etc.	G EFS
News and Events/ News and Upcoming Events/Latest News and Events/ 'Activity Highlights'	Verbal written text	in the MoU signed between KIU and CRDO (community research and development organization) at Islamabad in the field of Tourism, Environmental Sciences, Forestry, Biology, Earth Science, Disaster Management and Social Sciences, Entrepreneurship, mineral processing, construction industry, Social Sector Development, Women Empowerment, Hospitality & Tourism Management.	G as well as SS
News and Events/ News and Upcoming Events/Latest News and Events/ 'Activity Highlights'	Verbal written text	the news of “First Plantation Campaign Started at KIU Diامر Campus, Chilas” (see p.xxviii). along with the related picture of that event like plants and students with faculty	G

'Activity Highlights'			
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NUML

S r . #	Link	Mode	Signifiers	Theme
	Home Page	Color, logo, pictogram,	exhibits different colors among which the color blue is prominent as it is the identity color of NUML. a logo of the university along with the acronym and name of the university in dark and light blue colors. The logo is round in shape bearing the university's name in white font in the outer circle with a dark blue background color. The inner circle has blue background color with a yellow colored pictogram of two people sitting and it looks that they are communicating by speaking to each other. a conjoined letter acronym .	G
	Home Page	logo	The logo of the university shows two people involved in oral communication. main focus on 'modern languages'.	SS
	Home Page	Color, sub links	a blue colored bar having again different links like home, about us, admissions and ads, academics, languages, faculties, offices, quality assurance, research and contact us .	G
	Home Page	Slide show of photos	a slideshow of Photos having three parts. i. an exterior view of the main admin block. a red bricked building in front of	

			<p>which green flag of the country is there surrounded by trees and plants.</p> <p>ii. The second portion displayed exterior view of another prominent academic block of university in front of which a large lawn with green trees.</p> <p>iii. an exterior view of another block in front of which a green lawn having a tall green tree. The Pictures of academic blocks with nature in green</p>	G
	Home Page 'Quick links'	Color, pictograms+ captions, sub links,	<p>i. The first section of 'Quick links'. had many sub links under it which included: online admissions, academic calendar, employee directory, ORIC, radio, CPEC centre etc. in the form of small square shaped boxes of multiple colors like brown, blue, purple, green, orange etc. On them, small pictograms of the related links.</p> <p>ii. The next section named as 'glance at NUML'. Under it, different box shaped links e.g., Campus Life (video), journals, NUML support fund, BLTea project etc.</p> <p>iii. 'online resources'. many blue coloured bands containing sub links of important projects, facilities, rules, programs, application and other online facilities e.g., psychological counselling services, off campus access to digital library, exam rules, thesis directory, international conferences, BICON training registration form, digital library etc.</p>	G G G

			iv. Out of these, blue coloured bands different colours like schedule for courses in red colour while the idea registration at BICON was in green colour.	
Home Page	Color, sub links, map		<p>The next part of the page also divided in three sections placed parallel to each other.</p> <p>i. The first section labeled as 'latest news' showed the important news with the corresponding dates in its scroll down window.</p> <p>ii. The next section had the heading as 'Latest Events' also fashioned in the same way as the previous one in a scroll down window.</p> <p>iii. The last section had the heading as 'where we are?'. The main headings in this section i.e. 'NUML Campuses in Pakistan', 'Affiliated institutes' and 'guide map' in green colour. Their sub links like names of cities, names of affiliated institutes had blue color.</p>	P P G
Home Page	Social media icons		The page ended up at a bar showing the name of university with online contact links and social media links. Small icons of Facebook and Linked in.	G
News and Events/ News and Upcoming Events/ Latest Events/ Latest News and Events/ 'Activity Highlights''	Verbal written text		the routine activities highlighted like language tests, scholarships, inter university workshops and seminars etc. while the 'Latest Events' displayed more important events of national and international nature conferences, festivals, convocation etc.	EFS

	News and Events/ News and Upcoming Events/Latest Events/ Latest News and Events/ 'Activity Highlights'	Slide show of photos+ captions	Slide show on the Home Page displayed different activities with the headlines. presents different events celebrate the cultures and linguistic identities of different areas of the world e.g., i. one headline with picture showed the Minister counselor of Korea addressing on the occasion of a 'Hanguel day'. ii. Another photo with headline as ' Chinese National Day' showed performance of Chinese art by the teachers of Confucius Institute.	EFS EFS
	News and Events/ News and Upcoming Events/Latest Events/ Latest News and Events/ 'Activity Highlights'	photos	All these pictorial representations of different activities	EFS
	About Us / About	Verbal written text, Color, pictogram	Detailed view of the university as written text on a white background with black font. The only picture on the page was that of an open book like pictogram with 'about us' written on it in a different font.	SS
	Vision/ Mission	Verbal written text	'research and innovation'; 'expression for development of languages and other branches of learning'; 'creation of new knowledge'.	SS
	Vision/ Mission	Verbal written text	seeks 'excellence' in the fields of " higher education, research and innovation, and expression for development of languages and other branches of learning, and creation of new knowledge".	SS

	Vision/ Mission	Verbal written text	‘development of languages’ -The reason is stated in the link of About Us / About while describing the history of university as “Initially, it was a language institute aimed for the sustainability and development of language skills as “..... established as an institute in 1969 to help people communicate and understand each other in different oriental and occidental languages, to assimilate different cultures and to act as springboard for emerging disciplines. provided language training facilities to personnel of armed forces and other government services of Pakistan.”	SS
	Vision/ Mission	Verbal written text	“establish, sustain and enhance itself as a quality-centric higher education institution”. ‘academic environment’; ‘opportunities for productive, and responsible citizenship both as Pakistani citizens and the global citizens’; and the sub frame of ‘growth’ at levels like “intellectual, personal and professional”.	SS EFS
	Vision/ Mission	Verbal written text	to provide “distinguished intellectuals as faculty; talented, students devoted to the pursuit and advancement of knowledge; broad-based quality programs; state-of-the-art facilities and new trends in e-learning and information communication technologies; exemplary administration and qualified administrative staff; international compatibility”.	EFS and SS
	Vision/ Mission Objectives/ Aims & Objectives	Verbal written text	The Objectives/ Aims & Objectives in bulleted form i. The very first objective is concerned with the environment and ecology. “positive and proactive educational environment” and “valuable	SS

			<p>contributions to knowledge transfer and knowledge creation”</p> <p>ii. “new trends in e-learning and information communication technologies,.....preparing them for their educative and productive roles and responsibilities as Pakistani and global citizens” .</p> <p>iii. ‘Social change’ and learning which ‘promotes co-curricular spaces’. Educational environments are the best spaces for initiating that change.</p> <p>iv. Ethical values create sense of ‘civic awareness’ and develop good personal qualities and social relationships. “... principles of trust and authenticity, integrity and ingeniousness, creativity and critical capacity as attitude, conviction and compassion.....and establishing social relations as preparation for public discourse and public life”.</p> <p>v. ‘Quality and innovation’ in research and “the discovery, dissemination, and application of knowledge”.</p>	<p>SS</p> <p>EFS</p> <p>EFS</p> <p>SS</p>
		Verbal written text	<p>vi. “Promote language development across diverse seats of language learning.... through emphasis on Technology and advanced information literacy across curriculum”.</p>	<p>SS</p> <p>SS</p>

			<p>vii. Working on ‘improving quality of curriculum’ .</p> <p>viii. ‘Specialized market based courses’, “in areas of Social Sciences, Mass Communication, Business Studies, International Relations, Engineering and its sub fields and Information Technology and other disciplines”,</p> <p>ix. Creating “pedagogical conditions and spaces”, is a must have to foster a sustainable educational environment and to play an active role in this era of globalization.</p> <p>x. ‘an interactive environment’, allowing critical and positive thinking “social freedom, as well developing a language of critique and possibility”</p> <p>xi. ‘Preparing the young generation for future development of their ecology as well as global front’ “to make significant contributions in the development of Pakistani society and the global community”.</p> <p>xii. ‘Personal and professional growth’</p> <p>xiii. Interacting with the likeminded people and ‘creating a community’ “including stakeholders that support and perpetuate constant innovation and progress”</p>	<p>EFS</p> <p>EFS</p> <p>EFS</p> <p>EFS</p> <p>while creating room for SS</p> <p>EFS</p> <p>EFS</p>
	Vision/ Mission	Verbal written text	processes for achieving the Aims & Objectives of the university outlined as (see p. ii-iii):	

	Objectives/ Aims & Objectives		<ul style="list-style-type: none"> i. The sub frame of ‘supporting students for higher learning and scholarship’ ii. The sub frame of ‘retaining and developing competent intellectuals as faculty’ iii. The sub frame of ‘Maintaining exemplary administration and staff members’ iv. The frame of “Create and sustain educational environments, activities, experiences and facilities” v. The frame of ‘Initiating research collaborations with national and international institutions’ vi. The sub frame of ‘Encouraging academic guidance and industrial-sector support of higher education’ 	<ul style="list-style-type: none"> SS. EFS EFS EFS SS SS EFS
	‘Why NUML’ ?	Verbal written text	<p>also points out the special place of NUML in the form of content phrases in bullet style. mostly noun or adjective phrases analysed as below.</p> <ul style="list-style-type: none"> i. “The only “LANGUAGE UNIVERSITY” ii. “WORLD CLASS REPUTATION” iii. “ACADEMICS EXCELLENCE” iv. “POSITIVE PLACEMENT” v. “IDEAL LOCATION” vi. “TRANSPORT & ACCOMMODATION” 	<ul style="list-style-type: none"> SS EFS SS EFS G G EFS EFS

			<p>vii. “STUDENT SATISFACTION”</p> <p>viii. “FRIENDLY FACULTY” ‘creating a positive environment’</p> <p>ix. “LIBRARY & IT FACILITIES” ‘providing opportunities towards research and innovation’</p> <p>x. “CARING STUDENT SERVICES” ‘providing them on campus facilities’</p>	<p>‘SS</p> <p>G</p>
	Introduction and vision section of ORIC	Verbal written text	<p>‘research, innovation and commercialization’</p> <p>The functions like “working on long-term, sustainable planning and progress” and “developing contacts with the corporate sector/market/industry”</p>	<p>SS</p> <p>EFS</p>
	ORIC Vision	Verbal written text	ventures to “propel the intellectual and social capital of NUML into the globally competitive knowledge-based society”. ‘knowledge based globalization’	SS
	ORIC Mission	Verbal written text	by stating “empowering individuals, professionals and institutions through capacity building and sustainable solutions”	EFS
	Aims & Objectives	Verbal written text	<p>different frames are again evident in the written text as</p> <p>“To manage and support all academic and sponsored research & development”</p>	EFS
	Aims & Objectives	Verbal written text	“To bring funding opportunities from national/international donors/sponsors”	EFS
	Aims & Objectives	Verbal written text	“To design, develop and deploy practicable and replicable models for sustainable economic and social development of the society”-	SS

	Aims & Objectives	Verbal written text	“To provide career counseling and placement services”	EFS
	Aims & Objectives	Verbal written text	“To provide quality mentorship and conducive environment to writers and scholars for research-based writing”-	EFS
	Aims & Objectives	Verbal written text	“To maintain, deepen and strengthen an enduring lifelong relationship between alumni and university through opportunities that promote interaction and engagement with NUML”	EFS
	Aims & Objectives	Verbal written text	Another headline highlighted in this section as a link to be further explored was ‘Cyclic Integrated Participative Approach (CIPA) ’ defined as “the cyclic process from development to deployment and redevelopment of ideas and products through university-society interaction”.	All 3
	‘Corporate Social Responsibility (CSR) Initiatives’ link	Verbal written text	These initiatives are taken “under ORIC/ INTRODUCTION TO ORIC / ORIC OVERVIEW to promote NUMLians’ social contributions”. Certain thematic areas: “Ideology: Patriotism, Values, Vision, Studentship”; “Deliverance: NUML Community Services, Emergency Relief”; “Sports: Physical & cognitive activities; sportsmanship with resilience” ‘EFS’. two areas i.e. “Education: Promotion of knowledge, Out-of-school Children, Scholarships”	EFS SS EFS
	Corporate Social Responsibility (CSR) Initiatives’ link	Verbal written text	“Aesthetics: Arts & Culture; national unity through diverse indigenous participation”	G and EFS

	News and Events/ News and Upcoming Events/Latest Events/ Latest News and Events/ 'Activity Highlights'	Verbal written text	<p>'National Conference on Education and Sustainable Development (NCEFS)' held in 2017. Specific buzz words are used to cover particular ideologies like 'development', 'transforming lives', 'sensitizing people', 'key driver', "think critically" and "to rationalize practical measures" the metaphor 'Education is a catalyst' for change and sustainable development .The modals like 'can, will' further add to the possibilities and promising future prominent in the sustainability discourse. description of conferences, organizations, education, approaches, requirements.</p> <p>The sub themes mentioned as 'quality education; policy measures; uniform quality of curriculum; educational opportunities for all; Access, equity, inclusion, and gender purity; quality learning environment</p>	EFS EFS
	News and Events/ News and Upcoming Events/Latest Events/ Latest News and Events/ 'Activity Highlights'	Verbal written text	<p>'National Conference on emerging trends and challenges in educational assessment 2018'. Clicking on the link showed the flyer of the conference with Pictures of University building and the officials attending a conference. The written text was arranged around different headings. The theme of the conference i.e. 'Educational testing, assessment and evaluation: Trends and challenges'</p> <p>The concept note refers to the influence of different factors influencing life style, work place situations and educational environment such as "technological advancement", "fourth industrial revolution" and "explosion of knowledge" on the assessment system of education.</p>	All 3

b. Tables of static visual and verbal text (private)

Visuals

Hamdard university

Sr.#	Link	Mode	Signifier	Themes
	Home Page	Color, photo	i. a brown building, 'Bait ul Hikma', white background ii. Bait- ul- Hikma	G SS
	Home Page	Color, photo	i. green background, model of book stand in grey and brown colour. surrounded by green plants. tabs of green color on a white background. ii. model of book stand	G SS
	Home Page	picture on the slide show, logo, photo, color, language (Urdu)	a logo celebrating 25 years of the university. The logo's shape of number 25 written in urdu language in dark and light green colour. Under it, was written silver jubilee celebrations. On the top right side, the name of the university and the logo is written in green colour. All the main tabs in green colour along with white font. picture of 'Bait ul Hikma'. The brown building surrounded with green having flowers outside the building	G, SS

	Home Page	Photo on the slide show	a convocation ceremony where students holding their green files are taking oath wearing red gowns with blue lining	EFS
	Home Page	Color, caption+ pictures, pictogram	<p>written text in yellow color on the picture that “Hamdard university is participating in 2018 education expo”.</p> <p>On a green background with university’s logo on the top, three pictures in a row on this visual.</p> <ol style="list-style-type: none"> i. The first image shows a white colored rolled degree with a gold medal. Two books were placed horizontally while four books placed vertically on them. All of them were in different colors. A black convocation cap was placed on them. ii. In the second image, two book cards that seem like cover boards. One is black with an ‘e’ and some lines and arrow in white font pointing to the other one and the other one is blue in color. On its one side, 2018 is written in yellow color and the caption of ‘Dawn’ in the black font at the end. iii. The third is a white colored, side view pictogram of human face. The head or brain area is circled with different colored round pictograms which look like icon ‘settings’ on our smart phones. 	<p>EFS</p> <p>G</p> <p>SS</p> <p>EFS</p> <p>G</p> <p>SS</p>

			use of colors like shades of green, white or grey, building	G,
	Home Page	photo on the slide show + captions, color verbal written text, language(Urdu)	<p>i. a picture of famous personality, known for his herbal competence and literary activities, Hakeem Saeed wearing black Jinnah cap with white dress.</p> <p>a. The person a great advocate of SS</p> <p>b. personality is also a symbol working for EFS</p> <p>ii. green coloured background in different shades was used in this visual with white colored font.</p> <p>iii. The written text reveals that it is about the '98th birth anniversary of Shaheed Hakeem Muhammad Said' - urdu word for 'birthday' i.e. 'Yawm-e-Paidaish' under it. On one side under the picture, was one of his quotes in Urdu: "Pooray Mulk main her naunhaal kay liyae taleem ka yaksaan nisaab hona chahiyae"(The whole country must have equal curriculum/syllabus for every child). Use of English and Urdu language for captions and quotes</p>	<p>SS working for EFS</p> <p>G</p> <p>SS</p>

	Home Page	logo+caption, color	<p>i. A green colored background with university's logo and name on one side and silver jubilee celebrations on the other side of the top of this visual.</p> <p>ii. Between these two is a slogan written as "Safe drive, save life" in black font.</p> <p>Under this, a caption "A CSR INTIATIVE BY HAMDARD UNIVERSITY".</p>	G EFS EFS
	Home Page	Verbal written text, language(Urdu)	another quote of Shaheed Hakeem Muhammad Saeed written in Urdu language as "kirdaar insaan ka wo husn hay jissay zawal nahi" i.e. (character is that beauty of a person which does not have a down fall".	EFS
	Home Page	Photo+picture +caption, color	<p>i. A photo of Hakeem Said on one side and picture of Quaid- e -Azam on the other side. In between these two photos, a cartoon picture of a road in black color with yellow and white stripes on it passing through the green field.</p> <p>ii. two cars i.e. one blue and one red on the road and two triangular sign boards and blue round board on the road. two people in their uniforms i.e. one policeman and one traffic police officer standing beside the road. In the end, a green stripe bearing the</p>	EFS EFS

			motto “UNITY, FAITH, DISCIPLINE- Guiding Principles of Pakistan by Our Quaid”.	
	Home Page	picture +caption, photo, color	Visual was captioned in text as ‘Idara-E-Said’ on a green stripe. a big hall with dark brown wooden shelves adorned with pictures on both sides of the walk way. On one side of a wall, the large photo of Hakeem Muhammad Said. The walls of the hall off white in colour.	G
	Home Page	Photo, color,	gate view of Hamdard university. building structure is yellowish brown in colour. The name of the university written on the entrance corridor roof. The bus entering from the gate. green trees outside and inside the university. two entrance gates in the university.	G
	Home Page	Verbal written text	written text under these visuals about the university. words and phrases e.g., the geographical details about the university. described, along with giving exact statistics, as located over “a Picturesque landscape”. factual details about its “historic and geographical significance”. as situated close to important strategic areas and cultural sites. verbal illustration of the physical natural setting of the university in “The shades of green interlaced with flowers and fruits ... coupled with a rich and varied fauna, sustained by the proximity of the Hub River, lend a distinct flavor to an ideal site suited to academic and research pursuits, Nature, at Hamdard, manifests itself explicitly. Within its	G

			boundaries, purpose built architectural marvels of different faculties and departments merge well into the planned landscape setting	
	Home Page	Verbal written text	<ul style="list-style-type: none"> i. described as aiming for “professionals and scholars, capable of creating new horizons on the glorious foundations of the oriental heritage of knowledge merging with the latest developments in the West” ii. making effort to provide “an academic and healthy environment”. 	SS G
	Vision/ Mission and objective of the university	Photo, color	<ul style="list-style-type: none"> i. a photo of Hakeem Muhammad Said in the same attire of white kurta with Jinnah cap was addressing the audience with two mikes in front of him. <ul style="list-style-type: none"> a. founder in the local attire with Jinnah cap represents values of ‘nationalism’ and ‘patriotism’ ii. The purple colour shade wallpaper as a background in the photo and written text in white font. Under the text, the heading ‘Vision/ Mission’ was written at the bottom of the picture. iii. The headings were in green color. 	EFS EFS G G

	Vision/ Mission and objective of the university	Verbal written text	<p>i. “To provide state of the art educational and laboratory facilities, and a conducive environment to students and staff for their professional and personality development.</p> <p>ii. To promote Islamic concept of enlightenment through firm efforts to enable students and faculties compatible with the material and spiritual progress of human kind”</p>	G SS EFS
	About	Verbal written text	<p>i. university’s plans. Along with common Vision/ Vision/ Mission statements about universities, the text exhibits some different statements showing different themes like “superior liberal education”; “help alleviate suffering through, both, sympathy and action”</p> <p>ii. “academic programs meet the changing needs of students and the challenges of the 21st century”</p>	EFS SS
	About	Photo +captions, Verbal written text	The photo of Hakeem Saeed. with blue background color. White colour font is used for his written quote. It says, “We have each come into this world for a specific reason to live, love and serve Allah through services of His creatures”.	G EFS
	The Founder/ Founder	Verbal written text	another quote of his i.e. “ It has been my endeavour to prepare Pakistani youth for the challenges of tomorrow. I would like to see the youth studying	EFS

	Chancellor's Message		at our campuses to develop the qualities of devotion, love, determination and services to mankind".	
	QEC	color	white colored background with blue font	G
	sub tabs in QEC menu and introduction about QEC	Verbal written text	<p>details about the department.</p> <p>Lexical items like "process -driven approach" including "design, development, production, and services"</p> <p>The four- step cycle for quality assurance mentioned as: "Plan, Do, Check, and Act"</p>	<p>SS</p> <p>All 3</p>
	Aims & Objectives of QEC	Verbal written text, color	<p>same format as above.</p> <p>The headings were in green color.</p>	'G'.
	QEC menu International Linkages/ Memberships	Color, photo, logo	On the top, Hamdard university is written in blue bar. A white campus building with sky blue mirrors with a modern architecture. The building is surrounded by a beautiful garden with trees, flowers and grass outside it. On the top of the visual, the name of university was written in white font with white logo of the university. This campus name mentioned as on green colored stripe .	G.
	QEC menu a sub link of 'international memberships'	Color, pictogram+ caption	a blue colored text as 'international memberships' and heading of 'Memberships' written in green font. a pictogram of a white globe with two belt like curled straps surrounding it in red and blue colors with caption at its side as 'The Tallories Network'.	<p>SS</p> <p>SS</p>

			<ul style="list-style-type: none"> i. A pictogram of globe ii. Red, blue, green colors 	G
	QEC menu a sub link of 'international memberships'	Logo	Another membership mentioned after it is the 'INHAAQE' (International Network for Quality Assurance Agencies in Higher Education) with its logo in the visual. a world-wide association of over 200 organisations implementing quality assurance in higher education actively	'SS'

Qurta university

Sr.#	Link	Mode	Signifiers	theme
	Home Page	color	blue and white used as background color	G
	Home Page	Photos on the slide show	a slide show of different Photos related to different activities of the university	G
	Home Page	Photo+caption, Color	<ul style="list-style-type: none"> i. Few officials of university exchanging the contracts MOU with UNIMAS (Universiti Malaysia Sarawak) flags of multiple countries placed on the table- ii. walls in orange and mustard colour- Modernization of buildings and environment- 	'SS' 'G'
	Home Page	Photos+caption , color	a laboratory view of the university. The lab equipments like glass jars, machines, microscope. This photo highlighted as 'State of the art labs' highlighted on a mustard colored background stripe with	'SS'

			white font on it- Photos of labs, scientific equipment, and experiments	
	Home Page	Photos+caption	‘Convocation 2018’ Photos of the scholars and students wearing their black convocation gowns and convocation caps	-‘EFS’
	Home Page	photo+ caption, color	different journals/ articles in purple, blue and brown colour. caption in white font with mustard background ‘Research at Qurtaba’ in white font	-‘SS’
	Home Page	Logo, color	A green coloured logo of Higher Education Commission of Pakistan and three yellow stars- associated with nature and life	-‘G’
	Home Page	graph+caption, color	the caption told “3rd position in Sciences and IT”. After this, there are green, orange, red and yellow ranking graph bars showing different levels- different levels of progress- As compared to red and orange bars, the yellow ones showed higher level	‘SS’
	Home Page	Photo+caption	A half picture of a civil engineer with modern dressing and his yellow cap standing and drawing building structures on a glass screen communicating the message without full sentences that Qurtaba university of science and technology offers program of Civil Engineering.	‘G’ and ‘SS’
	Home Page	Photo	promotion of Electrical Engineering department with charts and drawing tools	‘SS’
	Home Page	photo	Group photo of ‘ Institutional Performance Evaluation ’ associated with Higher Education Commission of Pakistan’	‘EFS’
	Home Page	Photo, logo, photo on the	i. the exterior view of the building of the university. The brown colored	P

		slide show+captions	<p>building had the university's name is written in black colour and above this, the logo of the university is placed on the wall.</p> <p>ii. surrounded with plants and a garden in front of building.</p> <p>iii. captioned on the same mustard strip as "W3 Category university".</p>	'G' 'EFS'
	Home Page	Photos+caption	the officials of the university awarding trophies and medals to the students. The caption about "Sports at Qurtaba".	EFS'.
	multiple links about undergraduate study, post graduate study, Quality assurance, visit us, News and Events, messages and quick links etc.	Photos	Pictures of students involved in study, libraries, books, quality captions and university building	All 3.
	News and Events/ News and Upcoming Events/ Latest Events/ Latest News and Events/'Activity Highlights'	Verbal written text, icons, social media links	such as seminars and conferences. facebook link of the university. The VC's message link was on the right side of this visual.	'EFS'.
	Home Page	social media links	The last section several of the university addresses, giving social networking contacts on website e.g., facebook link	P 'SS'.

	News and Events/ News and Upcoming Events/ Latest Events/ Latest News and Events/‘Activity Highlights’	Photo	The photo of seminar on climate change. a person presenting through projector in front of the audience.	‘G’.
	News and Events/ News and Upcoming Events/ Latest Events/ Latest News and Events/ ‘Activity Highlights’	Photo+ Verbal written text	3rd Asia international conference in a Malaysian university-a photo of the three of the university faculty members. the details about the event. Among the broader areas of the conference were “Advances in Managing Operations and sustainability; Emerging issues in Economics and Finance; Future of Marketing and Management; Global Development in Humanities, Education and Civilization”.	‘EFS’.
	Vision/ Mission, introduction to ORIC	Verbal written text, color	<ul style="list-style-type: none"> i. a long detailed description of ORIC in white pages with black font and orange color font used in the headings. ii. the slogan of the university using the metaphor of light and ‘life long learning’ 	G SS
	ORIC Vision	Verbal written text	<ul style="list-style-type: none"> i. ‘Knowledge’ ii. values of tolerance, progressive attitude, order (socio-economic, political and moral) iii. ‘Truth’, “service to mankind” “submission to Allah Almighty” 	SS ‘EFS’ ‘EFS’.
	Objectives/ Aims & Objectives	Verbal written text	<ul style="list-style-type: none"> i. the kinds of knowledge into two kinds i.e. ‘Acquisitional 	‘SS’

			<p>knowledge’ and ‘Revelational knowledge’</p> <p>ii. “an ideal form of education”</p> <p>iii. ‘Revelational knowledge’ i.e. ‘wisdom’ should lead the ‘acquisitional knowledge’ “(i.e. Knowledge gained through natural and social Sciences)” thus bearing Objectives like “imaginative, stimulating and rigorous professional classroom practice”; “an effective system of personal care and academic support”; “creative and constructive thinking”; “tolerance and understanding of other cultures, races, faiths and classes”; “ public service”; “ dynamics leadership”</p>	<p>SS</p> <p>‘SS’ and ‘EFS’.</p>
	<p>ORIC/ INTRODUCTI ON TO ORIC / ORIC OVERVIEW</p>	<p>Verbal written text</p>	<p>i. to “determine patterns of private business in informal sector” envisioned to get through three ways i.e. “Academic – Practitioner Interaction Environment”; “Student – Practitioner Interaction Environment”</p> <p>ii. the third way “Marketing and Promotion of Academic Excellence” measure was “to promote the researches relevant to Pakistan socio-economic needs”. “conferences, Seminars and training programs for faculty awareness and faculty industry linkages. also organizes trainings and workshops at</p>	<p>‘G’</p> <p>‘SS’</p> <p>‘EFS’.</p>

			national and International level”	
	ORIC/ INTRODUCTI ON TO ORIC / ORIC OVERVIEW	Verbal written text	An event was displayed i.e. a seminar on “ Climate Change and Sustainable Development using Green Infrastructure for Storm water”	All 3

SZABIST

Sr.#	Link	Mode	Signifiers	Theme
	Home Page	Color, map,	a black background and blue on it with white font for headings. some main tabs like campus radio, SZABIST board, career, feedback, search, site map, contact us.	G
	Home Page	Logo, pictures, color	<p>i. On the top right side of this page, the logo of the university consists of a small photo sketch of the famous politician of the country i.e. Shaheed Zulfiqar Ali Bhutto (late) and a picture of galaxy. The name SZABIST was written in white color.</p> <p>ii. With it, different campuses mentioned in terms of their located cities’ name as Karachi, Islamabad, Larkana, Hyderabad and Dubai. On the right side, the main heading of</p>	EFS, SS P

			ii. with background of different shades of blue color .	
	Vision/ Mission	PPT slide	only slide with black background color.	G
	Vision/ Mission	Verbal written text	<p>i. “excellence in education, research, development”, which is “distinction in service”. by committing to “national and global contemporary needs; cutting edge research and development; hi-tech scientific and technological expertise; hi-tech scientific and technological expertise; current and future socio-economic challenges”</p> <p>ii. in aiming for “global citizenship responsibility”.</p>	<p>‘SS’</p> <p>‘EFS’</p>
	About Us/ About	Logo, color, Photo	<p>i. the logo of the university with its name. blue and white combination using blue for the main tab bar and white for the written font and background of the text.</p> <p>ii. a photo of the campus buildings: brown in color with glass panes and windows in blue color. A blue sky filled with clouds and the green trees and lush green lawns around the building.</p>	<p>G</p> <p>G</p>
	Vision/ Mission	Photo, color, picture	<p>i. in the centre over blue background, a stretched picture of Shaheed Benazir Ali Bhutto with a candle on.</p> <p>ii. The image of candle represents ‘enlightenment’ and its placement with picture of a political personality-represents the</p>	<p>‘EFS’</p> <p>‘EFS’</p>

			principles and values set by him for campus sustainability discourse.	
	News and Events/ News and Upcoming Events/ Latest Events/ Latest News and Events/‘Activity Highlights’	Verbal written text, color	detailed review about past and upcoming events. The dates written in green colored bar and blue bars for the details.	G
	SDRC (Sustainable Development Research Center)	logo+ captions, verbal written text ,color	with the green leafed logo of this centre having a blue stripe with its slogan in small font is written in all caps i.e. “STRIVE TODAY TO PROSPER TOMORROW” along with the acronym of SDRC in bold font under which full name of centre. Besides this logo, a quotation i.e. “To be a leading research and advisory centre on energy, environment, and sustainable rural and business development, in close partnership with national and international organizations”. i. The green leaf in this logo of a leading research and advisory centre	All 3. ‘G’ ‘SS’. ‘G’
	SDRC (Sustainable Development Research Center)	Photo+ Verbal written text, color	a group photo of team of SDRC and the details about SDRC. News and Events highlighted in light blue color at its right side where ‘national and global activities’	All 3 G
	Home Page of SDRC	Photo, color, logo, diagram	i. a photo of seminar/presentation and some professional people as audience. Under the green and black heading ‘Welcome to	‘EFS’

			<p>SDRC’, ‘introduction about SDRC’.</p> <p>ii. shows SDRC logo surrounded with three big circles around it which was green colored font written text. These are named as ‘Energy and environment’, ‘sustainable business development’ and ‘sustainable rural development’. mentioning three major areas of sustainability discourse..</p>	‘G’
Home Page / About SDRC	pictures+ caption, color	<p>i. a pictorial description about the projects. The wind power plant with different wind mills in white color over a blue and white cloudy sky background. With this, green plants of different shapes on the green grass.</p> <p>ii. The blue solar panel was shown in the next image. The tank placed beside it had caption which states “SZABIST solar energy research station”.</p> <p>iii. a graphical picture of the wind power plant over a green area. surrounded with trees and greenery. Two wind mills with the adjacent buildings and shadow Pictures of people moving around; model of the project</p>	‘G’. G, SS G	
Home Page / About SDRC	verbal written text+ photo	a long description about creating energy from fossil fuels. The two team members (men) wearing white shirts and black pants on a hilly area and discussing projects.	G	
‘SDRC Gallery’	Photos	multiple photos about seminars, conferences , projects and other events	‘EFS’.	

			held in SZABIST , other institutions and areas	
	‘About Research Centres’	Verbal written text	“a host of research centers that provide practical and sustainable solutions to the issues of a developing country such as Pakistan”.	‘SS’
	‘About Research Centres’	Verbal written text	<ul style="list-style-type: none"> i. Two centres were mentioned i.e. one as ‘Centre for Biosciences Research (SCBR)’ managing ‘Stem Cell Research Centre (SCRC)’ and ii. the other centre as ‘Sustainable Development Research Centre (SDRC)’. The focus on ‘cancer’ research; “promotion of renewable energy in the country”; “synergy between socio economic development and environment”; growth and development without endangering the environment or the climate; sustainable business and rural development”; “least cost option of energy efficiency and conservation” 	‘SS’ and ‘G’.
	SDRC Objectives/ Aims & Objectives	Verbal written text	communicates different plan of activities like “conducting seminars and case study analysis”; “research assistance and policy analysis on different areas of development specially improved nutrition, reduced maternal and infant mortality rate and alleviated poverty”; collaborating with “the public sector, private sector and with the international development partners”; “Making SDRC a self-sustained organization through taking up consultancy work with public sector and development partners”	All 3.

	SDRC 'New initiatives'	Verbal written text	details of awareness programs of the university; discussion sessions to integrate SDG's in all the departments of the university and participate in collaborative projects. Its subheading 'SDRC – Projects' which enlists the projects committed to SDGs throughout Pakistan e.g., "Investing in Family planning.....; Eco Cooler System (Goal 13-Climate Change)...; Green Bin Welfare Project..; Inclusive Education...; Renewable Energy Policies for Pakistan and India A Comprehensive Study...". Also, the heading 'National and Global Activities' - followed by different headlines related to different activities and projects related to the themes of sustainability at national and international level.	All 3
	The heading "SDRC - In Media"	Verbal written text	shows the headlines broadcasted and published in the media. Also, the heading 'Key Organizations' enlists both nationally and internationally recognized institutions working with the university e.g., Pakistan Metrological Department , USAID, Sustainable Development Policy Institute (SDPI),WWF, International Union for Conservation of Nature ICUN.	All 3
	The heading 'SDRC - What you can do'	Verbal written text	identifies different areas, in which either the work was being planned or was in progress, for people or organizations can volunteer to share their expertise e.g. Community service and mobilization , Sustainable Business Development , Energy Policies , Clean Development Mechanism etc.	All 3

The University of Lahore

Sr.#	Link	Mode	Signifiers	theme
	Home Page	Color, logo, photo	<p>i. The color green for the main links bar and the corresponding links presented in the white color. the university's name and logo in white color and some other links beside like 'apply online', 'programs', 'about us', 'portals', 'contact us' etc. over the picture of the building of the university in red and white color having a brick wall texture and students standing in the corridors.</p> <p>ii. A tree in front of the building and a clear blue sky in the background on the top left of the homepage. At the bottom of picture, some other tabs in white font and black colored bar.</p>	<p>'G'</p> <p>'G'</p>
	History of UOL	Color, Verbal written text	<p>i. On the left side of the page, a dropdown menu. In the middle of the page, a cyan or sea green colored box displayed at the heading of history of UOL explaining that it is the largest private university in Pakistan more than 35000 students and consist of 7 campuses....the time it was established and offering different faculties having 35 departments.</p> <p>ii. On the right side of the history of UOL, a photo of exterior view of the university building</p>	<p>'G'.</p> <p>G</p>
	Home Page	Verbal written text	<p>i. quality of teaching and research excellence and the ranking of university in top 6 Pakistani universities in 2012 QS Asian</p>	'EFS'

			<p>ranking. HEC recognized it for “W4” category an international quality criteria.</p> <p>ii. also outlined different fields like engineering, medicine, law etc. equipped with labs. for “knowledge sharing and human resource development programs” and their internships given to students and skill development programs.</p>	‘SS’
	Vision/ Mission	Verbal written text	<p>i. “critical abilities, wisdom and values which are necessary for the making of a forward looking, coherent civil society”.</p> <p>ii. “a mindset imbued with Islamic ethos and positive social norms without prejudice to the authenticity of any other religion”</p> <p>iii. ‘entrepreneurship’ and ‘positive social capital’</p>	‘EFS’. SS EFS
	The heading ‘Commercialization and Enterprise’	Verbal written text	for ‘medical park’ and ‘IT innovation centre’ along with ‘three technology parks’	‘SS’.
	Other headings like ‘Teaching Excellence’, ‘Excellent Facilities’, ‘organization’, ‘ACCREDITATION’	Verbal written text	Description	‘EFS’
	International Linkages/ Memberships	Small photo icons+ Verbal	a dropdown menu appears at the left side of page having 8 sub tabs as mentioned before. 9 countries enlisted with small photos of their country flags. A brief mention of type of linkages in front of them. These countries	‘SS’.

		written text	include Afghanistan, Azerbaijan, Congo, Iraq, Pakistan, Sudan, Turkey, Uganda and Northern Cyprus.	
	'Research'	Verbal written text+ photos	the same dropdown menu appeared on the left side as mentioned above. shows the 'research' of the university the projects, aims and Objectives/ Aims & Objectives, targets. On the right side of the page, we can see two photos of Agri-Bio Technology park in which different researchers could be seen doing research, examining the technological instruments and experiments while wearing the lab coats and masks in lab. The written text shows details about the project. "three green houses, cactus garden, tissue culture lab and chemical biology lab among others". The 'targets' and 'targets achieved' also describe the activities in these areas. another centre i.e. 'Centre for Research in Molecular Medicine (CRiMM)', its details and Vision/ Mission statements.	'G'
	'About Lahore' (a tab Home Page leading to a separate page)	Verbal written text+photos	i. the same drop down menu on the left side one was present. In the middle of the page at the top is a green colored heading about the Lahore city. The main heading leads to further sub headings i.e. "Lahore the heart of Pakistan", "Baghdad to Lahore", "Mughals kingdom", "Education and Poetry", "Western touch", "Rich culture", "Lahore's major attraction" etc. with their respective descriptions on the right side. a picture of Lahore museum having a white entrance gate and mud colored building with Mughal	

			<p>architecture with a green garden around.</p> <p>ii. On the right bottom of this page between “Education and Poetry” and “Western touch”, a picture of a place in Lahore where a water pond and green trees that are typical of Mughal architecture.</p> <p>iii. Besides description of “Life in Lahore”, the picture shows a busy road with buildings and lights in the evening time there.</p> <p>iv. Parallel to “festive time”, a picture of a famous place in Lahore all lighted up at night.</p> <p>i. The space and architectural details</p> <p>ii. presenting the culture and traditions</p>	G EFS
	the societies’ link News and Events/ News and Upcoming Events/ Latest Events/ Latest News and Events/‘Activity Highlights’	Photos on slide show, logo, photo	illustration of all the events in the form of a slide show without any written text explanation. On the top of the webpage, a logo of UOL and another logo of office of clubs and societies. On the background of this picture, a banner on the wall about ‘International Humans Rights Day’ and a group photo of the students in which some were holding the certificates.	‘EFS’.
	News and Events/ News and Upcoming Events/ Latest Events/ Latest News and Events/‘Activity Highlights’	photos+ captions, banner	small Photos with captions of News and Events on the page. a group photo of the event captioned “Mobile photography competition (Selfie Story)”. another picture of event “Women Olympaid 18 (Chapter 2)” and the next was a banner captioned as “4th All Pak Laughter disaster 2018” and on	EFS

			entrepreneurship’; ‘independent thought driven by creativity and critical insight’; ‘experiences outside the classroom’; ‘internationalisation’ university’s position was also shown on ‘The World University Rankings on Times Higher Education’.	EFS ‘EFS’.
	The About Us / About	map+ Verbal written text	<p>i. the different numbers on the top of the web page showing how many students, degree programs, academic faculty and networks - a picture of Pakistan map with dark grey color which indicates different campuses of UOL in Pakistan. the networking of the university throughout the country but also shows the significant locations and diverse environments</p> <p>ii. specific details about the campuses, departments, libraries, journals. The university covers all fields like medicine, engineering, arts and social sciences</p> <p>iii. in the statement “In an effort to become sustainable UOL has invested in solar powered generation plants and bio-gas plants, to provide green energy. This has resulted in the university being well-regarded for its environmental credentials among other institutions in Pakistan”</p>	G ‘SS’. ‘G’
	At the end of Home Page	Verbal written text	in bold font, “We have faith in our student future” followed by a statement in normal font i.e. “Our students are talented, hard working and full of good ideas. We encourage and empower them to bring their	‘EFS’.

			ideas to life. Hands on opportunities are what we're all about".	
	Home Page	pictograms+ captions	<p>4 different pictograms for each of the objective/ strategy here.</p> <ol style="list-style-type: none"> i. First one was a galaxy like structure captioned as "Empower". Knowledge seeking and sharing with resources ii. second one "Engage" with pictogram of globe. internationalization iii. The third one a convocation cap captioned as "Graduation"- being academically qualified iv. the last one was a trophy with caption "Awarding". reinforcement and benefits with a sense of achievement v. At the bottom of the page, a green background box, a logo of UOL with the name, e-mail, social media links and number in white color in it. Different tabs about university like facts, about UOL, Vision/ Mission, services, finance, learning centres, faculty etc. 	<p>SS</p> <p>SS.</p> <p>'EFS'.</p> <p>'EFS'</p> <p>G</p>

Iqra University

Sr.#	Link	Mode	Signifiers	theme
	Home Page	Color, photos	all blue in color with visuals of building and other information. The	'G' .

			theme and design in the blue color. The university's representative color is blue evident from the logo and other sections of the webpage.	
	Home Page	Logo, color, photo+caption	<ul style="list-style-type: none"> i. Photo of the university in the background with right corner containing logo and name in white and blue combination, with motto in bold-italic style and white font color. a photo at the top left of the page of a white colored building having green plantation in front. ii. Along with the university's name, a caption stating "where your future begins!" includes the future or progressive aspect. 	'G' . EFS
	Home Page	Color, photos on slide show	<ul style="list-style-type: none"> i. the menu bar or ribbon in grey shade of blue with white text on it. below the bar is a link regarding basic stats or ranking of the institute in background of lighter shade of blue. ii. dark teal ribbon regarding presidential initiative with text color white. an image carousel or slideshow in which all photos are related to the institute. iii. An 'admission open notice' with a photo of young students in happy mood in 	'G' through color and 'EFS' by activity P by purpose but 'EFS' by activity P by purpose but 'EFS' by activity

			light grey boxes with name of the campus below them.	
	Home Page	Slide show+ caption, picture	<ul style="list-style-type: none"> i. The slide show mainly textual in nature. Collaboration of Harvard business school (HBX) with Iqra university mentioned as “Celebrating a bench mark in our academic history, Iqra university collaborates with Harvard business school (HBX)’s Digital Learning Initiative”. ii. accompanied by a Visual of hand shake of two square dotted hands, one in red and another in blue. 	<p>‘SS’</p> <p>‘EFS’</p> <p>‘EFS’</p>
	Home Page	photo+ caption Verbal written text	<ul style="list-style-type: none"> i. with a white background with a blurry image of campus building shows the ranking of the university. The text shows that it is ranked as #1 among the private universities of Pakistan by CIEC. A table displaying the top five rankings of the universities and institutes all over Pakistan. Iqra university, Karachi was placed on the top as it bags 100 percent overall obtained score in HEC ranking. ii. a strong position among the private universities of Pakistan by CIEC where it stands at the top. With respect to HEC ranking, the 	<p>‘EFS’.</p> <p>‘EFS’</p>

			<p>Karachi campus of Iqra university got 100 percent overall score. A table shows ranking with percentage in lesser and highlighted space displaying the top five universities in Pakistan providing business education of excellent standards . the text is as “Iqra university has maintained its ranking as number one university as declared by the Sindh Higher Education Commission (Sindh HEC) through Charter Inspection and Evaluation Committee”.</p>	
	Home Page	<p>Photos on the slide show+ captions</p>	<ol style="list-style-type: none"> i. photos of the buildings of all the campuses of the university throughout the province. photos of buildings, adorned with trees and greenery around, are actually the hyperlinks for getting into the details of other campuses. ii. Moving to Islamabad campus link, shows the slide show along the photo of campus building. On the slide show, one textual slide shows “HEC ranking of universities 2016-Iqra university is ranked as number 1-“ the best business school in Pakistan”- “by higher education 	<p>‘G’.</p> <p>‘EFS’</p>

			commission of Pakistan in its latest ranking of 2016”.	
	Home Page	PPT slide +caption	Another slide containing text “HEC ranking 2014 (Announced 2015) – Iqra University is ranked #1 i.e. The Best Private Sector University in the country among General Universities i.e. Universities offering multiple disciplines and at No. 6 among all private and public sector universities in the country (among a total of 67 multiple disciplinary universities)”.	‘EFS’
	News and Events/ News and Upcoming Events/ Latest Events/ Latest News and Events/‘Activity Highlights’	Photos on the slide show	On the bottom of the page, a slide show of photos of events	P
	‘The Founder/ Founder Chancellor’s Message’	Verbal written text	<p>i. has other sections, division and color theme same as the homepage. Below this heading, a picture of chancellor with on the left side aligned with the message text.</p> <p>ii. The Founder/ Chancellor’s Message with an inspirational view. the relation of the name of the university with its vision to achieve sustainability as the very meaning of the first word of Quran i.e. “Iqra,” means to “read” - relevance of the name of the university with ‘reading’ which</p>	‘SS’ ‘EFS’

			<p>eventually leads to 'knowledge'. "in promoting technical skills, critical thinking" and</p> <p>iii. also values of "public duty, to help develop a prosperous and progressive society". emphasis on education as "the only solution to the problems faced by our nation" and students as leaders of future and proper environment.</p>	EFS
	'Mission & Vision' page	Color, verbal written text	the color theme, surrounding sections and divisions are same as Home Page . The section below the menu bar contains vision statement followed by mission of the institute. core values listed in bullet points. The headings and sub-headings are in sky blue color while text in black and bullets are in dark blue color.	G
	Values/ Core Values	Verbal written text	the values like "Respect, Merit, Courtesy, Excellence, Equality, Honesty, Innovation, Dedication"	'EFS'.
	Vision/ Mission	Verbal written text	<p>also states about transforming young lives " at an affordable price".</p> <p>i.e. "Entrepreneurship, Advance Learning Methodology, Lifelong Learning, Islamic Values, Industry and University interaction"; "Leadership, Training".</p>	'SS' 'EFS'
	the 'Vision/ Mission Statement Of the Business School'	Verbal written text	stressing on "ethical values in a technologically equipped environment".	'SS' as well as 'EFS'

	'Aims & Objectives'	Verbal written text	<ul style="list-style-type: none"> i. aiming towards “educational and training opportunities that are compatible to changing needs of the students” and preparing its “students for the challenges of the 21st century”. ii. as “the environment and infrastructure that help them develop potential for scholarship, creative work, professional realization, and service”. iii. “A strong foundation of knowledge and skills; The ability to think critically and tolerate differences of opinion” iv. i.e. to create “An understanding and respect for ethnic and cultural diversity; Human decision making which is formed and ethical; Adaptability to the workplace; A sense of being responsible citizens of the society; The values of hardwork and dedication”. 	<p>‘EFS’</p> <p>‘G’</p> <p>‘SS’</p> <p>‘EFS’</p>
	Values/ Core Values/ the Values or Goals	Verbal written text	<ul style="list-style-type: none"> 1. in terms of ‘Education and Research’ 2. Other goals like “a spirit of inquiry and criticism”; “new horizons of scientific knowledge needed for developing national resources”; modern mechanisms to adopt 	<p>‘SS’</p> <p>‘SS’.</p>

			appropriate new technologies and methodologies; Develop strong interpersonal and communication skills; various exciting and rewarding career opportunities”	
	‘Why Choose IU?’	Color	involves color theme and surrounding sections same as other pages. Reasons are listed with dark blue bullets for why the candidate will choose this institute. All reasons or points are listed with dark blue bullets and are in left alignment. At the bottom of the page where this section ends, the other section contains common and useful links such as career, blog and contact on the left corner while social media profiles links on the right corner. This section is in greyish blue color.	G
	‘Why Choose IU?’	Verbal written text	shows ranking of the university in different dimensions as “ Number-1 by Higher Education Commission in Business Education Category (2015)”; “as the best private sector university in Sindh as per CEIC evaluation”; “as a Six Star Institution”; “in “W4” category, the top category, by HEC”. The distinguished ranking of university	mainly P in nature ‘EFS’.
	Home Page of ‘IU Islamabad Campus’	Verbal written text+ photo, color, slide show	i. The structure divided into different sections and divisions. The header of the webpage contains image of the campus in the	G

			<p>background with right corner containing motto of the institute in bold white large text. The left corner contains the words “Islamabad Campus” also in white color and bold style but size smaller to the motto. This text is placed in a text box containing dark blue background.</p> <p>ii. the background of the rest of the page is light blue unlike the institute’s homepage that had white background. The menu bar has dark blue background with white color text for menu options or items. When the mouse or cursor is hovered over an item, the background of the item turns into lighter shade of blue. image carousel that displays latest and important information. for social media links of the campus, followed by admissions inquiry chat support, and then student area block. a training block, followed by research & collaboration and finally announcement scroller. Below the carousel is the text that provides details and overview of the Islamabad campus. followed by Latest Events slideshow, with scroll controls on the</p>	<p>G</p> <p>EFS</p>
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			sides and images at the center background.	G
	Introduction (Islamabad campus)	Verbal written text	<p>i. the demographic and statistical details of the university about its status, foundation, disciplines, facilities etc. “recently HEC has awarded category W’, i.e., A’ to Islamabad Campus because of its highly sophisticated infrastructure and state of the art academic/research facilities”.</p> <p>ii. location described as “This purpose-built campus is spread over a lush green area of five acres in the heart of the educational sector”.</p> <p>iii. ‘global curriculum’ i.e. “The university curricula are not only competitive but also in line with academic practices globally”.</p>	‘SS’. G. ‘SS’.
	‘Vision/ Mission & Objectives/ Aims & Objectives’	Color, Verbal written text	The area below menu bar has white background with blue text regarding Vision/ Mission and Objectives. The text is left aligned. Vision/ Mission statement is a one-liner. core values and Aims & Objectives both in the bullet style.	G

	Introduction	Color, Verbal written text	The section below menu bar contains introduction to the campus in regular black text in justified alignment. also the chat section or area on the bottom right corner of the screen or page that moves along when scrolled.	G
	'Aims & Objectives'	Color, Verbal written text	regular style black font that is aligned left. After brief paragraph on Objectives, listed in bullet fashion on white background. The heading in dark blue color and bold style.	G
	ORIC/ INTRODUCTION TO ORIC / ORIC OVERVIEW	Color, icons, social media links, logos, Verbal written text, photo	different structure and theme as compared to main website. has dark blue header containing white icons for social media profiles while left corner has white text and icons for important information links such as contact number, contact webpage etc. institute and ORIC logos. bar or ribbon contains menu items in white regular font on dark blue background. The text turns into dark blue and its background turns white. Below the menu bar is a picture of the institute captured through ground perspective and in blue hue. two buttons with ample spacing, one is for contacting the office and the other for Latest Events. Contact button is in dark blue color while the other in greyish blue color.	G
	ORIC/ INTRODUCTION TO ORIC / ORIC OVERVIEW	Color, Verbal written text, social media icons	i. the image carousel, two columns and sections, the left one contains introduction and Aims & Objectives while the right	'SS'

			<p>column or section contains success stories and collaboration details. Both sections contain text. role and responsibilities of this department which are presented in bullet points with heading in dark blue. After responsibilities, Vision/ Mission, core values briefly presented in column style. Each box contains bold heading with regular font text for details. a link for further details separated by a line. Vision/ Mission placed on the sides in white font color while core values are in dark blue font and bullet fashion.</p> <p>ii. the footer appears which has all rights reserved, copyright and the homepage link of this office while social media profiles icons and links were placed on the right corner.</p>	SS
	ORIC/ INTRODUCTION TO ORIC / ORIC OVERVIEW	Verbal written text	as “the set of strategic, operational and tactical design”; “activities that strengthen and sustain the local and national economy”	All 3
	Objectives/ Aims & Objectives of ORIC	Verbal written text	<p>i. primarily related to promoting advance research education</p> <p>ii. “To create awareness regarding product development, industrial</p>	<p>‘SS’.</p> <p>‘EFS’</p>

			design or sourcing” and “To attract potential investors” iii. for “strengthening international linkage”	SS
	‘ORIC Functions/ Role and Responsibilities / Services’	Verbal written text	for discussing “the operations of academic research –how to preserve them, how to solve the problems that arise in them, and how to capitalize on their strengths”; ”Building and sustaining relationships between internal and external stakeholders” and “Securing IP rights (Patents, copyrights, designs and trademarks)”.	‘EFS’
	video tour	Video, photos	i. different photos of activities in the university presented which change from time to time. A photo showing male and female students working on laptops in university computer labs ii. Another photo is that of university’s building with trees around and the green shrubs cut in the shape of university’s name iii. Pictorial representations of the computer labs	SS G ‘SS’

FAST-NUCES

Sr.#	Link	Mode	Signifiers	theme
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	Home Page	Color, logo+captions, photo	<p>i. a modern design with simple theme. The background as well as the dominant color is white, while text in the menu bar is of black font color. The text changes to sky blue color when mouse is hovered. The institute's logo is on the top left, above the menu bar while on the top right corner is the foundation's logo and name.</p> <p>ii. the image carousel that displays latest news and some basic facts about the institute. The image in the screenshot is of 'alumni discounts' with blue colored tabs of 'registration' and 'details' under it. the discounts of the institute available at various places and restaurants mentioned in the background.</p> <p>iii. The second image on the image carousel displays Photos of 'different campuses of the institute' nationwide with basic facts about the institute in white text with black background.</p>	<p>G</p> <p>G and P</p> <p>P by purpose and G by colors</p>
	Home Page	Verbal written text	<p>i. The text on the background of different campuses states in the form of</p>	'SS'

			<p>headlines one after another in the next rows i.e. “premiere University of Pakistan; five modern campuses in major cities across country; renowned for quality and impact of its students in the development of local software and other industries”</p> <p>ii. “provide world class educational environment and recreational facilities”</p>	‘G’
	Home Page	Photo+ Verbal written text	<p>i. The third image displays various activities picturing ‘students’ life’ at the institute. This image also has some basic facts on the foreground or above it in same color scheme as the previous image.</p> <p>ii. Photos of students’ activities with brief details</p>	‘EFS’. P by purpose and EFS by activity
	Home Page	Photo+ Verbal written text	<p>i. The fourth image has information in same color scheme with bold heading of “Higher job rate”. The image behind the text contains logo of various renowned corporations indicating where the students of the institute have been employed.</p> <p>ii. Creating job opportunities for the students and placing</p>	‘EFS’. EFS

			them in various reputed organizations	
	Home Page	Photo+ Verbal written text	i. The last image is of 'financial aid' which again contains white colored font of the text with black background or highlight in order to make the text readable and to not let user be distracted with the image behind it. The image here is relatively simple, it contains smokes of blue and black colors. Financial support for students	'EFS'.
	'Why FAST?'	Color, clip art, Verbal written text, videos	in black color. Right below this heading and centrally aligned is clipart of camera in sky blue color with dashes on its both sides, in the same color. Following this clipart is description of the heading, some basic information and the reason why a candidate should choose this university for higher studies. Two YouTube videos of FAST, side by side to each other, are placed below the text.	G
	News and Events/ News and Upcoming Events/ Latest Events/ Latest News and Events/'Activity Highlights'	Photo+ Verbal written text, clip art, color	the scrollable or sliding section. has aerial view photo of the university and white boxes evenly spaced containing clipart of either news or event and the corresponding text. The clipart is inside orange circle while text below is black with the date of item in sky blue color. Below the white boxes of News and Events, are blue buttons with white text that	G

			when clicked takes to the page containing all news or events.	
	‘Offered programs’ (Home Page headline)	Color, picture, logo,	<p>i. The ‘popular programs’ displayed on white background, with bold headings in black for the degree title. An image relevant to the degree placed on the right side within the program borderless box and aligned with the text. A button for further details in sky blue color with white font is placed below the text and image. All the programs placed in clickable slider navigating the offered programs section.</p> <p>ii. the bottom of Home Page displays logo of university in sky blue color with headings of links and bullets in the same color. Whereas, the links of other webpages of the site under various categories are enlisted in white color in a column style.</p>	P G G G
	‘Why FAST?’	Verbal written text	focuses on information technology, globalization and research i.e. “Research wings of the university are well recognized, nationally and internationally...cutting edge research having direct impact on the social, economic and technological needs of Pakistan.	‘SS’

			Our vision is to become a globally recognized research university of Pakistan within the next decade”.	
	History	Verbal written text	<ul style="list-style-type: none"> i. states its position “the honor of being the first multi-campus private sector university” having “spacious buildings and prestigious settings” ii. the distinction of “individually as well as collectively, have established leadership position”- 	‘G’ ‘EFS’.
	Vision/ Mission	Verbal written text+ photo	<ul style="list-style-type: none"> i. below the menu bar is an image of books on a table with some of them opened. The path is also in white but in small font size. The description is written in black regular text ii. Vision vows “to play an effective and meaningful role in creating a knowledge based society in Pakistan. This avenue would naturally and seamlessly lead to a civil society with knowledge driven economy”. iii. “producing graduates in Computer Science, Engineering, Business Management and Basic Sciences as well as managers of the highest order who may act as 	‘SS’. ‘SS’ ‘SS’

			<p>vanguard of the IT Revolution in Pakistan”.</p> <p>iv. “enormous educational potential of computer science, if used wisely, widely and vigorously, can be a powerful vehicle of social equalization”.</p> <p>v. Public duty i.e. “satisfaction of the financial needs of the poor, and opening doors of opportunities of highly expensive education to the indigent and disempowered, are the greatest moral achievements of the Foundation”.</p> <p>vi. Values are weighted i.e. “policy to fulfill the requirements of equality of opportunity and social justice” and “well balanced human beings with strong sense of values”.</p>	<p>‘EFS’</p> <p>‘EFS’</p> <p>‘EFS’</p>
	ORIC/ INTRODUCTION TO ORIC / ORIC OVERVIEW	Verbal written text	tells about “research activities in the university have contributed to the national socio-economic stream”.	‘EFS’.
	ORIC Vision	Verbal written text	“to promote research and innovation in the local context”	‘SS’.
	ORIC Mission	Verbal written text	“To take Pakistan forward by continuously improving quality of research, building partnerships	‘EFS’

			with the industry, and being able to capitalize on outcomes”.	
	ORIC Functions/ Role and Responsibilities / Services	Verbal written text	<p>i. numerous but the distinctive ones were “To encourage pragmatic research in the context of Pakistan’s socio-economic needs.....; To assist faculty in acquiring funds from international and national funding agencies....; To promote entrepreneurship, technology transfer and commercialization activities that support both local and national economies....”</p> <p>ii. “To periodically arrange awareness seminars, symposia and workshops”</p>	‘SS’ ‘EFS’. EFS
	ORIC Functions/ Role and Responsibilities / Services	Verbal written text	“Educate faculty about university research policy and process grant requests; pre and post-award administrative procedures for externally sponsored projects....;pursuit of technological or social innovations...; Mentoring; “Assist on patent filing and licensing; Continually keep web and social media presence to share the latest research, scholarship, and entrepreneurial opportunities”.	‘EFS’

**V- Observation sheet of frequency table of common static visual signifiers
(university wise)**

Sr.#	Signifier	Total	Sector	University: frequency	Frequency
6.	Color Green	44	Public: 5	i) IIUI: 2 ii) COMSATS: 2 iii) KIU: 8 iv) NUML: 3 v) NUST: 2	17
			Private: 4	i) HU: 19 ii) QU: 2 iii) SZABIST: 2 iv) UOL: 4	27
7.	Color Blue	107	Public: 6	i) IIUI: 1 ii) COMSATS: 5 iii) KIU: 3 iv) NUML: 11 v) NUST: 18 vi) AU: 3	41
			Private: 6	i) HU: 11 ii) QUIST: 2 iii) SZABIST: 13 iv) UOL: 1 v) Iqra: 31 vi) FAST: 8	66
8.	Language	23	Public: 5	i) IIUI: 1 ii) COMSATS: 1 iii) KIU: 6 iv) NUML: 11 v) NUST: 1	20
			Private : 1	i) HU: 3	3
4.	Architecture/Buildings	67	Public : 6	i) IIUI: 3 ii) KIU: 3 iii) NUML: 2 iv) NUST: 4 v) AU: 3 vi) COMSATS: 4	19
			Private: 6	i) HU: 10 ii) QUIST: 7 iii) SZABIST: 2 iv) UOL: 19 v) Iqra: 9	48

				vi) FAST: 1	
5.	Greenery/ green patches/ green lawns/ plants and trees/ green areas	34	Public: 6	i) IIUI: 3 ii) KIU: 3 iii) NUML: 1 iv) NUST: 5 v) AU: 2 vi) COMSATS: 1	15
			Private: 5	i) HU: 5 ii) QUIST: 1 iii) SZABIST: 5 iv) UOL: 7 v) Iqra: 1	19
6.	Plantation/green movement/green drive	11	Public: 2	i) IIUI: 1 ii) KIU: 9	10
			Private: 1	i) Iqra: 1	1
7.	Trees	22	Public: 3	i) NUML: 3 ii) NUST: 1 iii) COMSATS: 7	11
			Private: 2	i) HU: 8 ii) Iqra: 3	11
8.	Mountains	24	Public: 3	i) KIU: 22 ii) NUST: 1 iii) COMSATS: 1	24
			Private: 0		
9.	Sky	8	Public: 2	i) NUST: 2 ii) COMSATS: 2	4
			Private: 3	i) HU: 2 ii) SZABIST: 1 iii) UOL: 1	4
10.	Water	18	Public: 3	i) KIU: 2 ii) NUST: 11 iii) AU: 3	16
			Private: 2	i) QUIST: 1 ii) UOL: 1	2
11.	Flowers	9	Public: 2	i) IIUI: 2 ii) KIU: 4	6
			Private: 1	i) HU: 3	3
12.	Color White/White Font /White	88	Public: 5	i) COMSATS: 5 ii) KIU: 1 iii) NUML: 2 iv) NUST: 9 v) AU: 1	18
			Private: 6	i) HU: 19	70

				ii) QUIST: 5 iii) SZABIST: 9 iv) UOL: 8 v) Iqra: 19 vi) FAST: 10	
13.	Solar Power/Power Plant/Solar Panel	8	Public: 2	i) COMSATS: 2 ii) KIU: 1	3
			Private: 2	iii) SZABIST: 4 iv) UOL: 1	5
14.	Ranking /Category	28	Public: 2	i) COMSATS: 2 ii) KIU: 3	5
			Private: 3	i) QUIST: 2 ii) UOL: 4 iii) Iqra: 17	23
15.	Color Black/ Black/ Blackish	35	Public: 1	i) COMSATS: 5	5
			Private: 6	i) HU: 6 ii) QUIST: 4 iii) SZABIST: 6 iv) UOL: 1 v) Iqra: 5 vi) FAST: 8	30
16.	Book	15	Public: 2	i) NUML: 1 ii) NUST: 6	7
			Private: 4	i) HU: 5 ii) QUIST: 1 iii) SZABIST: 1 iv) FAST: 1	8
17.	Color Yellow/ Mustard	23	Public: 3	i) KIU: 7 ii) NUML: 1 iii) NUST: 2	10
			Private: 3	i) HU: 4 ii) QUIST: 8 iii) Iqra: 1	13
18.	Labs/ laboratories	8	Public: 1	i) IIUI: 1	1
			Private: 3	i) QUIST: 3 ii) UOL: 2 iii) Iqra: 2	7
19.	Color Red	12	Public: 2	i) NUML: 2 ii) NUST: 1	3
			Private: 4	i) HU: 4 ii) QUIST: 2 iii) UOL: 2 iv) Iqra: 1	9

20.	Color Brown	10	Public: 2	i) NUML: 1 ii) NUST: 1	2
			Private: 3	i) HU: 5 ii) QUIST: 2 iii) SZABIST: 1	8
21.	Convocation	10	Public: 3	i) COMSATS: 2 ii) NUML: 1 iii) AU: 1	4
			Private: 3	i) HU: 2 ii) QUIST: 3 iii) UOL: 1	6
22.	Famous Personality	8	Public: 1	i) KIU: 1	1
			Private: 3	i) HU: 3 ii) SZABIST: 3 iii) UOL: 1	7
23.	Officials/ Staff	13	Public: 4	i) COMSATS: 1 ii) KIU: 5 iii) NUML: 3 iv) NUST: 1	10
			Private: 2	i) HU: 1 ii) QUIST: 2	3
24.	Group Photos	9	Public: 3	i) IIUI: 1 ii) COMSATS: 2 iii) NUST: 1	4
			Private: 2	i) SZABIST: 1 ii) UOL: 4	5
25.	Technology / Students Working On Computer/ Laptop/ Networks	16	Public: 4	i) COMSATS: 1 ii) KIU: 1 iii) NUML: 2 iv) NUST: 7	11
			Private: 4	i) QUIST: 1 ii) UOL: 1 iii) Iqra: 1 iv) FAST: 2	5
26.	View	16	Public: 4	i) KIU: 1 ii) NUML: 4 iii) NUST: 2 iv) AU: 2	9
			Private: 5	i) HU: 2 ii) QUIST: 2 iii) UOL: 1 iv) Iqra: 1 v) FAST: 1	7

27.	Activities	25	Public: 4	i) COMSATS: 1 ii) KIU: 2 iii) NUML: 5 iv) NUST: 5	13
			Private: 6	i) HU: 1 ii) QUIST: 2 iii) SZABIST: 3 iv) UOL: 1 v) Iqra: 2 vi) FAST: 03	12
28.	Faculty	21	Public: 4	i) COMSATS: 3 ii) KIU: 7 iii) NUML: 3 iv) NUST: 1	14
			Private: 3	i) QUIST: 3 ii) UOL: 2 iii) FAST: 2	7
29.	Student/Societies	8	Public: 2	i) KIU: 5 ii) NUST: 2	7
			Private: 1	i) UOL: 1	1
30.	Seminar/s /Conference/Workshops	20	Public: 6	i) IIUI: 1 ii) COMSATS: 1 iii) KIU: 3 iv) NUML: 1 v) NUST: 2 vi) AU: 1	9
			Private: 3	i) QUIST: 6 ii) SZABIST: 3 iii) FAST: 2	11

VI- Dynamic data

i. Video description and transcription

1. The University of Lahore

The video starts with the name of the university i.e. 'the University of Lahore, Islamabad campus' and a pictogram of famous monument in Lahore City of Pakistan i.e. Minar-e-Pakistan. This is

green colored font. Throughout the video, captions are in green color or white wherever they appear. The first shot begins with an optimistic sort of music in the background and an aerial view of the university's surrounding area. The zoom in shot gives a closer view of the location and building structure of the university. The first caption says "among top ranked universities of Pakistan". The second shot comes with closer aerial view showing the corridors and floors of the building filled with a number of students with the caption i.e. "fully equipped Engineering Labs". The third shot zooms out with the inner pathways and buildings with the two captions i.e. "Recognised by HEC" and "hostels facility". The fourth shot goes down with the view of open areas in the university including the parking area with the caption "vast playgrounds to encourage Physical health and sportsmanship among students". Then, there is a scene of cafeteria of the University with the caption "hygienic meals for you to enjoy in the University cafeteria". The scene involved customers busy in purchasing and then there is an image of parathas being fried on the stove with the caption as "food of your choice". The next image came with a bit far view from the height showing the university area surrounded by large green patches around with the caption "everyday bus facility to and from the University Campus". Then, there is the scene of students studying in the library with the moving caption i.e. "Best learning environment". Next, there was an image of a computer lab showing students working with their desktops in front and the caption said, "digital computers to allow students embrace modern technology". After it, another image of library in which a student was shown picking up the book of his choice from the book rack. The caption on it was "well equipped library with more than 20000 books covering all the disciplines". The next one was the scene in a scientific lab where students were discussing with the help of models like human skulls, digestive system. The caption on it told "highly qualified teachers and fully equipped medical Labs". In the next shot, few young students sitting in the cafeteria were shown to be involved in chit chat with the caption presenting "friendly environment". The shot following after it also showed few students sitting together and writing something On their notebooks. On it, the caption was "group study environment". An Open space area of the University surrounded by trees was shown with the caption of "programs offered 1. Pharmaceutical Sciences 2. Engineering and Technology 3. Allied Health Sciences 4. Business and Management Sciences". The video ends here.

2. COMSATS

On the homepage among the other main tabs, there is an icon in the form of video play button which leads to the virtual tour of the university. The video starts with outer view from Gate One of the university. There is some background instrumental music of a famous patriotic song along with visuals of the university. An interesting thing to note about this video is that there are many options to watch this video in addition to the play button e.g., zoom in, zoom out, reload, rewind, forward, view from all four directions i.e. North, East, West, south. This makes it a real experience for the website audience and the main sites of the university does not remain unfamiliar even to a stranger. This video starts with showing the reception area surrounded by green plantation and flower beds. The captions show different academic blocks and sites of the university i.e. mosque , library, cafeteria etc. around the blue sky, clean pavements and green areas in the background. Though there is background music, there is no background voice or commentary. The brief captions say it all.

3. Hamdard University

The video starts with an aerial view of the university on a welcoming note. The main entrance of the university green area around was shown. There is some background music along with the visuals of video. The music sounds optimistic and progressive. Different sites and buildings of the university have been shown. A model of a book built at the entrance bears the caption as "25 years of academic excellence". Next, comes the outer view of the main building i.e. 'bait-ul-hikma' and then the zoom in view of the admin office which is full of students busy in getting information and waiting for their turn. On this, the given caption was "Pakistan's first private University" and "magical place for quality education" coming one after the other. After this, a large world map was set up somewhere in the university was presented which led to a large reading room where students were sitting and studying together. Then, came a scene of computer lab with students sitting in front of the desk tops and were working on the computers. It ended with the caption "a place where you can do and be anything". The next shot came up as a side view of the library journals placed on the racks with the same previous caption. Then, came the view of a large hall like corridor decorated with some historical pictures and picture of the founder of this university leading to a big library with several books and students benefiting from them. The caption says "South Asia 's largest library". It shows students studying there and various books in the racks with the caption "potential dreams and creative Master Minds". The turning of pages leads to another scene in

which some female students were seen walking in the corridors and chatting together happily. This gives the caption of "given freedom and encouragement". The next scene also shows some students wearing lab coats and discussing their observations in the scientific and medical Labs. The caption says "this is where my future is safe". The shot of students discussing an in front of models of human skeleton bears the caption "From medicine to Pharmacy". Another shot of the lab showed students observing through microscopes with the caption "they trust me as much as I trust them". Then, there were students playing football in the green grounds with the caption i.e. "This is where I learned to be brave". The next is a quick shot of students coming in and going out of the department and then entering into fully equipped labs and classrooms with the caption "making the right choice", the students working on electronic devices with the caption "that I can try anything myself". The scene of students working in computer Labs carries the caption "information Technology to law". An aerial view of the University buildings with green patches around leads to the building of 'Faculty of Eastern medicine' where the students were shown the dissecting the dead bodies and studying about structures and bones along with their teacher with the caption "they trust me as much as I trust them" and "This is what my heart crave". Another visual of students studying in the classroom carries the caption "from management to philosophy" and "planting the seed through hard work and through investment in mind". Next is the building of student teacher centre with the caption "Hamdard University, your future awaits you". Several beautiful buildings were shown with green plantation around. In the end, grey and blue coloured building with the caption "Hamdard University City campus" was shown.

4. Air university

The video has a background commentary on which the visuals of the university run over it. It starts with logo of university in blue color. A background voice with some light music was giving commentary on all the visuals shown in the video. First, was the picture of the main building of the university surrounded by greenery all around. The Pakistani national flag along with university's logo flag was hoisted at the top of the building. Some inauguration pictures of the university were also shown in which the chief guest and famous personalities of the country could be seen. Image of famous lush green Margalla hills, famous Faisal masjid, tall buildings and busy roads in Islamabad were also presented to show the location of the university. The students coming and going through green studded sites of the university were also shown. Students and faculty,

busy in academic activities in and out the classroom, were also shown in some shots. The visuals of filling out the admission forms, University Campus in Multan showing the clip of inauguration speech of the special guest and written vision statement were also shown. The visuals of learning and teaching situation of modern classrooms also shown. Highly qualified faculty teaching with latest audio visual aids and resources also highlighted. the Strategy of quality enhancement cell were also communicated through visuals of student- teacher ratio, modern engineering and Management department. The faculty of Engineering department was promoted by showing the number of students and the related latest equipment. It is quite an extensive program of the university with two major branches that is department of Electrical engineering and the department of Mechatronics engineering. The other most promoted program was of Administrative Sciences showing the teacher student interaction in the classroom. The faculty of basic and Applied Sciences was described which had further departments under it like Computer Sciences and Engineering, mathematics, physics. The Faculty of Social Sciences and departments like Humanities further branching into English, Pakistan Studies, Islamic studies and Sociology. All these descriptions were accompanied by visuals teacher student interaction, students studying together and using latest equipment. A major distinction of this University is the institute of Avionics and Aeronautics. The spacious building of this institute was shown in the visuals. Activities in mechanical engineering, Aero space engineering and avionics department were visible in the video. Its achievements were described showing professionals operating the related equipment and doing research. Industrial linkages were also shown. Specialized labs for each department were also illustrated in the visuals. Optical Fibre network and Local area networks were also shown. The central library with large collection of books and digital resources was also exhibited. The activities of clubs and societies of the university could also be seen in some of the clips. There was projection of the placement office and its activities, workshops and seminars were also highlighted. The counselling cell and medical facilities were also showcased. Sports activities and games were also highlighted in some clips. The Transport services were captured in the visuals. The shots of monthly magazine ' in the air' were there too. Linkages with International Universities on the screen were shown through their names and logos. The pictures of young students with their keen interest were also captured. The convocation pictures and clips of chief guests' address were illustrated too. The video ended with the logo of University and provided the link for further information.

Below is the transcript of the background commentary by one person.

Transcript

00:01 [Music]

00:08[Music]

00:12 “It is said that you attend the University for four years where you belong to that university for the rest of your life. Established in 2002, the University's main campus is located at the lush green foothills of Margalla in sector E-9 Islamabad. The university has an elegant state-of-the-art accord campus attracting the best students, faculty and staff for the development of a peaceful and enlightened society. In view of increasing number of students seeking admission to the programs offered by the Air University and directives of the prime minister, the university started the mountain campus in 2011 at Abdali road, Multan can the university aspires to be among the leading national universities excelling in teaching, learning, research, innovation and public service currently or 3,000 full time students are enrolled at the university pursuing undergraduate, graduate and PhD level programs, diploma and certificate level courses are also offered for working professionals to enhance their skills.[Music]faculty members including PhDs mostly hold foreign qualifications and experience [Music] the student-teacher ratio is 15:21 ensuring that each student receives individual attention and guidance since its establishment. 3,000 engineers and managers have graduated from air university with excellent job prospects [Music]

the Faculty of engineering has two departments: the Department of Electrical Engineering which offers bachelor MS and PhD courses and the department of mechatronics engineering which offers undergraduate and graduate-level degrees all recognized by the Pakistan engineering Council.

[Music]

the Faculty of administrative Sciences offers distinctive Business Administration programs including a four-year undergraduate BBA honest four years undergraduate vs the economics and finance MBA program of one half years and three and a half years MS Management Sciences and PhD in management sciences.

[Music]

the Faculty of basic and Applied Sciences includes the department of computer sciences and engineering which offers an undergraduate BS honours degree program and the Department of Mathematics which offers a graduate level MS in mathematical modeling and scientific computing. The Department of Physics offers basic and advanced level physics courses [Music]

The Faculty of Social Sciences- its Department of humanities offers programs in English and Pakistan Studies, Islamic studies and sociology to undergraduate students. The Faculty of Social Sciences also offers MS and PhD in English.

[Music]

The Institute of avionics and Aeronautics IAA at the cutting edge of research and development includes the department of avionics engineering in the department of mechanical and aerospace engineering. The superior faculty in research facilities make IAA a unique set for exploring new perspective collie by AAA offers a four-year bachelor of mechanical engineering degree program and MS and PhD degree programs in aerospace engineering and avionics engineering

[Music]

In 2001, an MEMS micro electromechanical system focused research project proposed by a university was awarded the prestigious three year and spire grant by a British Council and HEC Pakistan to establish a research as a strategic collaboration with the University of Cambridge United Kingdom. Air University was one of only five such universities that were selected by the British Council as role models for effective knowledge exchange between academia and Industry. There are over 20 engineering laboratories at a university all in sync with scientific progress and technology to support the talent of students and stimulate their learning. Each department has its own customized lab. Air University has eight computer labs and one language lab. The computer lab provides internet, Intranet, individual email addresses and source profile. The university has its own private optical fibre network and a local area network for campus-wide internet connectivity. The university emphasizes education skills in a sophisticated language laboratory has been established which is furnished with multimedia facilities and audio-visual tools[Music]

Near university's large central library has a print collection of more than 16,000 books 20 serial publications and eight magazines with three journals. There is also campus-wide access to more than 22,000 electronic journals available through the HECS digital library. Air university societies provides exciting opportunities to participate in a variety of co-curricular activities through its clubs which instill leadership, organization and management skills. The air university adventure club regularly arranges hiking trips. The cultural society provides a platform for students to express themselves in any event, in crisis management the placement in alumni office regularly arranges career fairs, projects exhibitions and internships and on-campus employment, the office organizes resume writing workshops, interview skills, seminars in lectures from top-level executives, managers and directors from major organizations. The counseling cell provides students with help in resolving personal or psychological problems and a doctor is also available at campus

to cater the first-aid and emergencies. Air university also encourages sports for students to develop physically as well as mentally competitive events like interuniversity sports and galas are held annually and students keenly participate and win laurels. The large cafeteria provides relaxation and refreshments to the students, faculty and staff. The university has its own transport fleet providing pick and drop services to students residing in twin cities of Islamabad and Rawalpindi . The University's monthly magazine named 'in the air' is developed by students to keep its readers up-to-date with information in various social and technological fields. The university's management has developed strategic ties with renowned international universities to benefit from the learning of international scholars. The mission of a university is to achieve excellence in teaching and research to produce graduates with sound professional knowledge, integrity, character , a keen sense of social responsibility and a passion for lifelong learning here in this university in which you are to reach earth, skies makes it a pinnacle of educational excellence. The air university is providing an environment that is very conducive for learning. I'm very happy to note that the congenial environment of this university is promoting quality education and sound citizenship”.

5. Iqra university

The video was labelled as 'Iqra University main campus 2 minutes tour'. The video starts with the visual of the main campus of the University. The shot shows the blue sky along a large white colored building adjacent to the greenery all around and the name of the university engraved on the green shrubs in front of the building. With the background music, the movement of the students in and out of the building could be seen. Then, a building viewed in an ascending way was captioned as 'EDC tower'. A classroom scene was shown with students having desktops in front of them. This was captioned as "state of the art classrooms with multimedia". Then, comes the shot of library showing students sitting around, taking out books from the racks and studying together with the caption "library with 175+k books". Then there is a view of a computer lab showing students working with the caption "digital research lab". Next is the view of a large hall provided with several chairs with the caption "main auditorium". The view of a lab captioned as 'iMac lab' with sub caption i.e. 'with 100+ latest iMacs' was also shown. Next was the shot of lab and electrical equipment captioned as 'Engineering Labs'. The caption of 'film studio' could be seen on a camera recording a programme of the youth sitting around in a discussion. The audio equipment and the Students playing musical instruments were shown with the caption 'sound stud'. A Scene of a gym in which male students doing exercise on the machines was captioned as 'boys gym' while the other one for females was caption as 'girls gym'. A large pool with clear Blue Water was captioned as 'swimming pool'. A boy diving in the pool with the caption as 'jacuzzi' and separate saloon rooms as 'steam bath' and 'Suana bath'. Then, students were shown playing basketball, badminton, volley ball which was captioned as 'basketball court' and 'badminton court' respectively. A shot of students playing snooker and table tennis was captioned as 'snooker room' I

and 'table tennis room' respectively. There were scene of students learning martial arts labelled as 'mixed martial arts classes', students learning music labelled as 'music classes'. Shots of students busy in job fair labelled as annual job with 100 + organisations. In the next shot, the logos of those organisations with Agra University in the centre were assembled on the screen. The next scene of a person doing transaction on the ATM which was captioned as 'on campus ATM'. A Visual of a student surfing on a tab was captioned as 'Wi-Fi facility'. In the end, all these scenes were assembled on one screen at a time and then, the name of the university followed by the sub caption of the slogan of the university i.e. 'Where your future begins' appeared ending the video.

6. FAST-NUCES

The video starts with a shot of early dawn with clouds and sky being illuminated by the sun. On it, a quotation by famous writer, Bertrand Russell, was written as " science may set limits to knowledge but should not set limits to imagination". Then, a few formulas with the name of the university in the centre appeared on the screen. Students were seen operating the equipment, working in the computer Labs, interacting with the teachers in the classroom, reading books in the library, participating in sports activities, moving in and out of campus gardens. Then again, the logo of the University along with its name appeared on the screen which scientific and mathematical formulas following it. After it, the background commentary started in Urdu language along with the visuals.

Along with commentary, several visuals appeared on the screen like students coming in and out of the beautiful lawns within the University buildings, students operating the electrical equipment and working in the computer Labs. The commentary is transcribed as follows: " ilmi tarakki ke is daur mein science aur Technology Maashi kamyabi ka lazmi zariya hain. FAST National University of computers and emerging Sciences guzashita 17 Sal se Pakistan ki maashi,science aur funni tarakki k liyae pure azam se koshan hai".

Next is the interview clip of the vice chancellor of the university, Wasim Sajjad, introducing it in English language as: "FAST which stands for the foundation for the advancement of Science and Technology established in the year 1980 by justice Ikhlmaq Hussain and Agha Hassan Abidi. Their vision was Pakistan cannot be established as a strong country unless we have excellent education in the field of Science and Technology. With this vision, they moved forward and for many years, degree was awarded at Karachi University by our Karachi campus and the Punjab University at the Lahore campus. Later on, Dr Mahbub Ul Haq became involved in this and now, we are a degree awarding Institution. The University has a board

of trustees and board of governors and they have all helped in making this university a prestigious University". During this commentary, some scenes like pictures of the founders, classroom note taking, students operating equipment, Karachi campus building, Lahore campus building , convocation group photo, inauguration of Chiniot, Faisalabad campus by the president Mamnoon Hussain etc. rolled in quickly.

The commentary continued along with the visuals i.e. the beautiful lawns of the campus, student teacher interaction in the classroom, operating equipments, students coming in and out of the corridors. The commentary in Urdu said:" FAST National University ka mission behtarin Afraadi quwwat Paida karna hai". Next was the comment of the founding rector and chairman Board of governors, Dr Amir Mohammed, who said: " The main objective was to train quality manpower for Pakistan, to provide an environment for quality training for brilliant students so that they can play a role national development".

Next is the scene of students coming in and out of the main building, peers discussing in the computer lab, operating electrical equipment, learning through LED projectors, teaching through electrical lab models, group study, library scenes, advanced scientific equipment etc. With the Urdu commentary given as follows: " ye University Computer Science, management sciences, accounting and Finance, Civil and electrical engineering, riyazi aur applied linguistics main undergraduate, Masters, MPhil aur Phd programs Mein Isnaad Deti Hai. Aala Tarbiyat yafta taajurbakaar issatiza hi hmari kamyabi Ka Raaz Hain. hmaray issatiza behtareen taleem aur Amli maharat aur tehqeeq k Shoboon mein Talba ke liye seekhane ki nai Rahen Khol rahe hain. Is silsilaymain asatizaa seminars, lectures aur tutorials ki madad se Talba ko behtarin taleem aur am Li maahartain Sikha rahe hain . FAST National University Say harsaal 2000 talba farigh ut Tahsil Hote Hain. Is tadaad ka paanchva hissa khwateen per mushtamil ha. . FAST University Koi ye Azaaz Hasil hai k 1985 mein computer science ke undergraduate program Main Pehal Ki, Jiske bad dusron ne takleed ki. Iska dusra Bada Aizaaz ye Hai k is nay Pakistan ki software industry ko behtarin tribiyat yafta afraad Muhayya kiyae hain. University ko ye fakhar Bhi Hasil hai yahan se Talleem yafta 16000 graduates aur 50 Phd mahireen Pakistan Bhar aur bairon Mulk ke Aala Taleemi aur tarrakiyati idaroon mein khidmaat Sar Anjam de rahe hain. Hamara mission yah Hai Ki taleem,tehqeeq aur funni Mahaarat ke hasool ke liye behtarin ilmi mahaul Muhayya kiya jae Jahan talba itmenaan Aur Dil Jamai k saath say padh sake".

Then, the video clip of the vice chancellor's interview intervened as:" our vision is to provide the best possible facilities for our students and provide the infrastructure where academics can proceed and develop

in a proper way. Is Waqt Ke 5 Bade shehron mein Karachi Islam abad, Lahore, Peshawar aur Chiniot, Faisalabad main university ke jadeed saholatoon se araasta campuses kam kar rahe hain. University ki imarat khuli, hawadaar, aur air conditioned hain. Saaz o Saman se arsasta Laboratories , jadeed auditorium , seminar rooms aur research centres hain. Libraries main aapko Tamam ilmi sahuliyat per Kitabain aur research journals Milte Hain. Hamare hostels behtarin saholiyat say araasta Hain. Yahan Ke cafeteria se munasib Keemat per behtareen khana Le sakte hain. FAST National University sirf talim aur Tehqeeq ke shobu mein hi behtareen idaara Nahin Hai balke Yahan talba ki ghair nissabi Sargarmiyaan Chahe Khel Ho, saqafat ho ya Technology, ko bhi nikhara jata hai. Yahan Par talba ki 12 societies hain jo ke har Tarah ke ghair nisabi sargarmiyon ke liye behtarin platform mohiya karti hai. Yahan honeHar talba aur issatizaa miljul kar apni salahiton ko ujjagar Karte Hain aur maasharay ke Sargarm aur musbat shehri ban kar ubbharte Hain. NESCON, JAZBA, Etech, job fair, convocation aur alumuni dinner Sammait FAST National University saal Bhar Mein bahut say events munaqid karati hai".

There is a plethora of quick visuals presented along with the Urdu s commentary e.g., graduates showing gold medals in the convocation, Microsoft building, newspaper cuttings and pictures of successful graduates along with their achievements. There were pictures of a young graduate, Mir Zafar Ali, who is a visual effects artist and has won 3 Oscar Awards. Another graduate, Imran Khan, took part in the discovery of gravitational waves. The pictures of him getting awards, solar system and gravitational force were presented. Clips of student studying in the library, Publication in Research journals were also included. The Urdu commentary along with that was: " Hamara fakhar yahan se padh kar gaye hue woh purazam talba hain Jo apni Aala talimi aur funni Mahaaratoon ke sabab Pakistan bhar mein aur bairun e mulk apni Madar-e -Ilmi ka naam Roshan kar rahe hain. Talim ke shobay mein Naam Paida karne ke liye tehqeeq ke maidan main kamayaab hona pahle shirt hai. Hamen Khushi Hai k Hamare iddaray ke 104 issatiza ab tuk Aala Mayar ki 210 tassaneef Ka izafa Kiya Hai. In mein se 78 tasaneef aisi hain Joe impact factor ke taht duniya bhar ki behtarin research tasaneef Mein hawala Jatt ke liye istemal Hote Hain. Hamare nassab ul ain Mein yah Shamil Hai kya Ham taleem ki nemat ko daulat say Nahin toltay.. FAST National University ne ghareeb aur Mustahiq Talba ke liye talim ke mussawi muwaqay Muhayya kiyae hain. Hum ise apni Shandar kamyabi samajhte Hain". An interview clip from Dr Amir Mohammed was inserted at this point as : " we try to make sure that any student who qualifies into our University through a competitive test is not refused education just because of the family's financial situation. So, we provide liberal financial assistance to the students whose families are such that they need assistance". Again, a number of visuals stream in along with urdu commentary i.e.:" University na sirf Talba ko wazaif mukKarar karti hai bulkay taleemi ikhrajat purey karne ke liye billa sood karzay bhi Jari karti hai". An interview clip from Secretary General elaborated it as: " 1000 ke kareeb kam Aamdani wale bacche

Hain Jo afford nahin kar sakte jinko Hum 10 crore ke kareeb financial aid detay hain". The Urdu commentary continued:" ye idaraa mali Mufadaat ke liye Nahin Banaya Bal ke Pakistan ki Samaji, Maashi, aur scienci zaroori yaat ko pura karne ke liye Qaim Kiya gaya hai. Hamari Foundation ke funds kissi bhi ghair mulki idaray se nahin Aate". Once again, the interview from the founding rector and chairman Board of governors elaborated:" this university is a private sector University. We fend for our selves financially.we raise our funds mostly through student fee". The Urdu commentary continued:" Yahan kay tammam Shobha Jaat bashamool dakhla, intizaamiya, dafatir, faculty, research aur Hamare wasail mein shafifiyat ko buniyadi shart Samjha Jata ha. Behtareen Kirdaar ke Hamil insanon ki tashkil Hamari koshish ka laazmi markaz hain". A female student,Esha Tahir, commented:" something that's really good about FAST is that it makes you have a general out look at life differently than just focusing on your Academic purposes. So, it's going to teach you how to be professional, how to be a better human being. that's something that really doesn't come with other institutions". Urdu commentary continued after it as:" Hamari koshish sirf ya nahin ke Aala Sainsdaan aur Mahireen Paida Karen balke Hamara maksad Hai ke muttawazan kirdaar wale behtarin Kirdaar ke hamil afraad Paida kiya jaayen Takay Pakistan aqwaam-e- Alam mein surkhrooh sake".

Along with the commentary and interview clips, visuals continued to be displayed on screen. There are usual scenes of students coming in and out of the university building, amount of scholarships and financial aid as text on the screen, green area around university, beautiful fountains within the building, notice boards, sports activities etc. The video ended with reappearance of logo of the university. The logo of the university is round in shape and blue in colour. After the name of University in English language and its acronym in the centre with green coloured crescent and star, two verses of Holy Quran about the gift of knowledge given to mankind with white font in the outer circle of the logo.

7. Qurtuba university

There are no official videos on the home page of the website. There is only a video about University that is the documentary made by a student. The video starts with the scene of early sunrise at dawn time with some background music. The first caption that rolled in was"2001". After it, a number of captions appeared one after another i.e. " the beginning of a history and identity, excellence , achievements and revolutions. Then, came a picture of two men one by one. After it, the next stream of captions appeared as:" with 4 departments and less than hundred students". A picture of a huge building surrounded with trees and Pakistani flag on

the top of it was shown after it. Then, captions with sun rising in the clouds at the background came one after the other as: " the biggest and the legendary, with 7 departments and more than 3000 students, 53 programs and two research journals, second position in KP and ninth in Pakistan private universities, HEC ranking 2015, 58 PHD doctors, 192 Mphil graduates, recognized by: Higher Education Commission, chartered by: Government of KP, Accredited by:NBEAC(business council),NCEAC (computing Council), NACTE(teaching Council), PEC (engineering Council), PBC(bar council), it's called Qurtuba University". After it, famous sites of the city captioned as ,"Peshawar" were shown one after the other. The Same building which was shown initially reappeared with students moving in and out of it and the staff busy in administrative activities. A member of the staff gave information about the university in Urdu language as: "Qurtuba University of Science and Technology jo 2001 mein establish Hui,iske baani professor Abdul Aziz Khan Niyazi, uska naam Qurtubs University Rakha. Iska paisa Manzar yeh Hai Ke Jo undalas,Spain main wahan Jo qurtuba City tha us zamane mein ye musalmanon ka ek bahut bada Taaleemi markaz Tha jahan per Europe se bhi aur Puri Duniya Se log Aate the talim Hasil karnay. Muajooda Zamana Jo Hai ismein musalmanon ka Jo Puri Duniya Mein zawal Aaya Hua Hai usi Ko Madhya Nazar rakhte hue Aziz Khan Niyazi marhoom ne is idaaray ka naam Qurtuba rakha". Outside view of the buildings was shown. A faculty member, Syed Anwaar Hussain(assistant professor CS/ senior coordinator academics) told:"Assalamu Alaikum, welcome to Qurtuba University of science Information Technology,Peshawar campus. we have 5 different departments in this campus where we are offering 53 programs". Another teacher while in the classroom, Dr Kashif Amin(assistant professor Finance) commented: "Students who do not care how much you know until they know how much you care and I can safely recommend Qurtuba for making your dream come true". A Staff member again commented:" Qurtuba University ka kiam jo hai Ek missionary Jazbay ke tahat hai. Yahi jazba ha k bahut Thode Hi arsaay Mein Qurtuba nay kaafi tarakki ki hai.Qurtuba nay abhi tuk taqreebun 58 top Phd s Farigh Kiye Hain, 192 MPhil graduates farigh huay aur yah Alhamdulillah, Hamare liye fakhar Ki Baat Hai k jitne bhi Hamare young graduates forever hai ine ki placement behtarin Jagah per Ki Hai". Then ,a library scene was displayed followed by an interview clip from a faculty member, Imran Khan (assistant professor in management science department/ co-ordinator Management Sciences) told: "Qurtuba University is not the name of an educational institution only. That is the name of quality education where the graduate acquire academic and moral excellence". A lecturer in English and linguistics department, Salma Ali Khan, commented:" enter to learn, leave to serve". Another lecturer in management sciences,/coordinator engineering, Jabran Ahmed, said:"Qurtuba University has defined new possibilities for the students". Another lecturer in finance/ coordinator MPhil Phd, Amirullah said:" Qurtuba University can teach you the skills and

gives you the opportunity". A lecturer of computer sciences department, Zartashia said: " Qurtuba is a place where dreams come true". Kausar Hayat assistant professor marketing said : " Qurtuba University is educating students by keeping in view the market relevance". Sajid Rahman, Assistant professor CS/coordinator Sciences and IT coordinator spoke: "Qurtuba University provides a platform where students do not acquire the knowledge of theories also the implementation of these theories". Then, video clips of celebration of Independence Day of Pakistan students were participating in tableau and songs, Wisal Ahmed lecturer in entrepreneurship/ event coordinator said: " one of the Chinese proverb states that teach me and I will forget, show me and I might remember but if you involve me, then I will never forget"-the background commentary continues along the visual of job fair, students helping the children, sports group photo, Independence Day group photo , students working in lab group photo, students getting the prizes as : "Qurtuba University has always encouraged and motivated students to participate in co curricular activities and it is very much important creativity of the students" . Different students telling different qualities of university as "Qurtuba University is great, phenomenal, excellent, exceptional, amazing ,awesome, beautiful". In the end, some more pictures of the officials in meetings, MOUs, awarding shields, famous poets visiting the university, famous days celebrated etc. rolled in quickly on the screens. The documentary ended with the scene of clouds on the sky with text showing the credits of those who have participated and made the video.

8. NUML

The first visual is the logo of the university and then, it starts background music with the picture of the main entrance and the first main administration block of the university. In front of the building, the sign posts in blue and white color point out the directions of different sites of the university like library, blocks, hostels, cafeteria etc. A very quick outer view of all the blocks and sites was presented within few seconds. Then, students belonging to both local and foreign areas studying and moving in green lawns, library, cafeteria and pavements of the university. A media lab set up by the department of mass communication was also shown followed by the scene of broadcasting room in which a person could be seen recording a program with the relevant equipment. The outer view of central library building on which there is engraving of Arabic verse related with education which is translated in 10 different languages was shown. The Arabic verse *اقْرَأْ بِاسْمِ رَبِّكَ الَّذِي خَلَقَ* which is translated as: "Recite with the name of your Lord Who created"(1). An AV room, the gym, and outer view of administrative block surrounded by trees and flowers were part of the next clip. After it, comes the interview clip of the then rector of the university, Major General Ziauddin Najam HI (M)(RETD), who introduced NUML as: "National University of Modern Languages has a unique distinction because ...perhaps we are the only university which offers languages courses starting from

functional courses up to PHD level and we have properly organized departments...separate department for each language”.

The next is the scene of class room interaction where students were listening to the teacher with interest and then it was followed by a scene of several students walking around with the caption saying “accommodates around 13,000 students every semester”.

Quick visuals also come in after this and the next interview clip i.e. Different teachers are teaching different languages in the class especially foreign teachers like Chinese, Korean, Japanese , European etc. ; students sitting in their language labs, teaching through AV aids like LCDs, board, charts and pictures; foreign students sitting in the classes; seminars in conference room and library, student teacher discussion.

The interview clip of Dr Anwar Mehmood (Dean Languages) was the next inclusion as: “NUML is a unique university in Pakistan which offers courses in more than 25 foreign languages and in this way, it caters to the needs of general public and govt. institutions. These courses range from basic to advance level, graduate and post graduate programs. NUML also offers a unique 4 years bachelors in modern languages program in which students have a choice to learn 2 foreign languages and specialize in one of them as a major subject. Moreover, in all under graduate and graduate programs of NUML learning of one foreign language is mandatory”.

After it, the upper view of the library was shown with the caption: “More than 29 oriental and occidental languages”.

Maj .Gen Ziauddin Najam HI(M)(RETD), the rector’s interview clip continued: “Way back in 1969...when we started off ...it was a modest institute and we were only offering 4 languages that is Arabic, German, French...but today we are offering something like 29 occidental and oriental languages. Our another distinction is that we also offer languages as part of under graduate and all graduate programs, and over a period of time, we have produced certain high quality linguistic professionals”. The visuals accompanying it were: Taking out from a drawer the library cards with Hindi written on it; Classrooms decorated with charts and maps showing student teacher interaction.

After this, the shot of two Chinese students studying on a grass pasture with the caption “800 foreign nationals enrolled in various disciplines” was shown.

The interview clip of Dr Liu Yao (HOD Chinese) was “Besides already Chinese language classes, we have also launched a series of cultural promotional events, teachers training and many other activities”.

The relevant visuals running along this clip were: Chinese teachers teaching Chinese language to students both at one on one level and as a whole class. A student standing on the dice and participating in inter departmental speech and audience belonging to different nationalities with the caption “facility of auditorium for different events”.

Dr Khalid Iqbal Yasir (HOD Translation & Interpretation) introduced his department as : “The department of Translation & Interpretation caters for the requirements of translation industry and market at national and international level. We are offering certificate program and BS translation and interpretation program in multiple languages”.

The accompanying visuals with and after this visual was : students sitting together with a desktop in front and involved in discussion; a number of laptops available, tall buildings with caption “hostels for boys, girls and foreigners”.

The interview clip of Dean Faculty Of English, Dr Muhammad Safeer Awan, rendered the introduction in the following words: “The faculty of English studies at NUML has been one of the largest faculties that is comparable to any faculty in any university in Pakistan. It consist of three departments from the foundational courses to the post graduate level... a kind of a teaching that we provide in these departments. We have more than 20 Phds teaching in our faculty. Similarly, more than 50 of our faculty have acquired their MS and Mphil degrees and overall, more than 200 faculty members are associated with the faculty of English studies”.

Students chatting in groups around the trees and sitting on the pavements sharing their thoughts ; Teacher teaching on power point slides on LCD in the classroom, students making notes in the library and big book racks filled with books in the library with the caption “state-of-the-art-library”.

The clip of Rector NUML, Major General Zia Uddin Najam HI(M)(RETD), again was included as :“Other than languages, we also offer courses in engineering, computer sciences, management sciences, social sciences.

The visual clip after it came as showing the campus block from outside , surrounded with trees, with caption “alumni strength of over 35,000”.

Dr Muhammad Akber (Dean Faculty of Engineering & Computer Sciences) commented as: “It is youngest but the most dynamic faculty of NUML.... we are the only faculty which is offering the program which needs latest trends and challenges of 21st century in the information and communication technology”.

The next visual was showing the campus lawns filled with blooming flowers and green grass and students walking around it; Teacher instructing in language labs and students busy learning on their desktops and then, showing the department building of Faculty of management sciences from outside followed by interview clip of Brig (R) Dr Maqsd-Ul-Hassan (Dean Management Sciences) introduced as : “We are committed to provide real high quality business education to our students with due regard to the emerging and prevailing trends in the international market. The main thrust lines of our business education are towards entrepreneurship and nurturing, grooming such business traits and qualities among our students that with further experience in due course of time, they become good business executives”. The visuals along with it were: two students are sitting in the green lawn discussing some notes; Students reading books sitting outside. After it, comes an inner view of broadcasting room showing the person operating the equipment with the caption “facility of campus radio”.

Dr Sufiana Khatoon Malik, the Dean Faculty of Social Sciences, introduced the faculty as “Faculty of Social Sciences is one of the most dynamic faculties of National University of Modern Languages and it is dedicated to make contribution in achieving the mission of the university. The departments of mass communication education and applied psychology, Peace and Conflict studies, international relations, Pakistan studies and Islamic studies of the faculty have been providing conducive learning environment for students by equipping them with knowledge and skills that is required for citizens of 21st century”. The visuals running along with it were: students moving towards the campus buildings, two students sitting in the library reading books, student sitting outside the department and making notes, students in the classroom noting lectures while the teacher is explaining, Student working on the laptop in library.

After it, a scene of the blue buses at the bus stand of university and moving out with the caption i.e. “A Fleet Of 28 Buses For Students”.

The last interview clip was of the rector, Maj. gen. Zia Ud din Najam, who rounded off the video as: “So, it has not only become a centre of excellence but the diverse university of all general subjects”. The visuals accompanied were of the same rector addressing a convocation, the view of admin block ending the video with the name of the university, its logo and website address.

9. NUST

The video highlights major facts starting from rankings, campuses, all in short sentences. The text in video is in white font color with less opaque blue circle that appears to float in from the left side and disappears towards the right end of the slide. The background of each heading or information contains relevant pictures and short clips captured inside the university. There is a light yet energetic instrumental music that plays in the background throughout the video.

Most of the clips and images are of the Islamabad campus. At the end of the video, there is an image that contains NUST logo and emblem in white color and centrally aligned. Right below the logo and centrally aligned is the full name of university in white color and smaller font size. Other text and information that follows it is also centrally aligned. After the name, the campus locations are mentioned in capital letters. Website of the university is mentioned below it after a single space and in bold font style. The last piece of information that follows is the social media profile links of the university and the UAN number. All information is placed on blue background.

The first image in the background, with which the video starts with, is the aerial view of NUST Islamabad campus captured through a drone camera. The university covers a vast land area surrounded with large green patches too. This short clip is followed by another drone captured image of campus headquarters. The captions i.e. “NUST”, “Islamabad” and “Public research university” appear on the top of the buildings. There is white font text on blue colored circles at the back. The heading says “NUST is Pakistan’s Leading University” followed by smaller size text mentioning the achievement of university in terms of rankings with regard to the world as on number 417th, 87th in Asia, 51st fastest growing universities under 50 years old. The text fades away as blue circles slide to the right to disappear.

A diagonal white line sweeps from bottom left to top right and displays another clip. The clip features fast pace zoomed out view of hostels and different institutes such as IESE. The same theme follows with information on presence of university nationwide. The text is left-aligned of same size. The text reads “4 cities, 6 campuses, 18 constituent institutions, 129 programmes”.

The next clip shows students inside a big exam hall followed by military branch students or cadets inside a big lecture room with blue chairs and grey desks. The students looked anxious and keen interest like in an entrance exam or interview waiting room. The caption on it came over as: “4% acceptance rate, merit based admission, 16,062 students, 502 PhD faculty”. Both rooms have white walls. These two short clips are followed by a drone captured shot of military cadets in white uniform in rows on university ground and this slide ends with their zoomed-in video.

The next heading is regarding research facilities with the caption “state-of-the-art labs and facilities” and “R&D aligned with industry and society needs” which features short clip of a teacher and students discussing some work followed by images of computing systems and equipment and ending with a robot designed and developed by students performing a task followed by students working on their systems in a lab.

The next slide is of internships which features 4 short clips in the background, with first one showcases a female student studying with caption phrases as “100% internships, 93% graduates employed, 530+ entrepreneurs”. The second clip shows the interior and exterior of campus building from different angles. It gives impression of spaciousness and greenery. The background features drone capture shots and aerial views of the buildings of Islamabad campus initially focusing on the head office building. The theme and effects are the same as the previous parts. The caption on it says: “Need based Scholarships, USD 16 million since 2010 for 1500+ students”. The third one shows a student working in lab and then short clip of lab of bioinformatics department. “International linkages-140 institutions, 32 countries” is the next caption and shows international students holding a discussion in the background. This is followed by a short clip of an international students working in a bio lab. This part ends with another international student studying on his desk. The fourth one features a small robot developed by students of robotics major.

The next part was captioned as “World Class sports facilities”. This also features 4 x 4 grid layout i.e. four equally sized grids with each containing four separate clips. The first one showcases the riding club facilities, the second one the gymnasium for students. The third one features students playing table tennis. The last one features the basketball court. These clips are replaced by indoor sports hall, students playing on football ground, the squash court, and football ground in all four grids respectively.

The next part is of student clubs and societies. This features the environment club carrying out their clean drive i.e. to clean the parks and grounds from trash. The next clip of the background is of a past concert. The concert is of local famous band “Noori”. It was captioned as: “30+ student societies” and on the sub captions “community service, entrepreneurship, literary/ fine arts, adventure & sports, environment, entertainment & media”. This is followed by a visit and talk given by a well-known Pakistani actress Mahira Khan inside the campus. This is followed by another concert clip in which students can be seen enjoying to the tune in blue and red lights. This ends with a group of NUST students performing at an event.

The next caption is of “campus care” which is sub captioned as “accommodation, medical services, cafeterias and shopping centers”. The first clip in the background is of students sitting near the lake inside NUST, Islamabad campus during winters. This is followed by a clip of cricket match being played on a TV inside male hostel lounge with students clapping. This clip is followed by a male student studying outside

the cafeteria on the ground. Few girls are shown walking on the campus road after this. Then, a clip is displayed of students eating in the student cafeteria. The last clip that follows is of a male student singing in his room while playing his guitar.

“Diversity and inclusion” is the title of the last part of the video, in which international students are shown standing and listening to a lecture. The sub captions were: “cultural diversity, socio-economic inclusion, equitable environment for the differently abled”. This is followed by a clip in which these students are attending a lecture or talk inside the seminar room and laughing.

The last part fades out and a blue background with white text appears. The first word is “defining” which stays fixed and the second word changes. The first word in the second position is “research” which is replaced by “innovation” after few seconds. Then “entrepreneurship” appears. “Excellence” is the next word in line. And the last word is “Futures”. Defining is written in bold while the changing words are mentioned in regular font style. These can be termed as the objectives of the university. ‘Defining Futures’ is the main slogan of the university and part of the logo as well.

After the mentioning of objectives or mission of the university, NUST emblem and logo with contact details, social media links, website address were displayed at the end.

Urdu Transcriptions

1. FAST-NUCES

The commentary is transcribed as follows:

" ilmi tarakki ke is daur mein science aur Technology Maashi kamyabi ka lazmi zariya hain. FAST National University of computers and emerging Sciences guzashita 17 Sal se Pakistan ki maashi, science aur funni tarakki k liyae pure azam se koshan hai".

علمی ترقی کے اس دور میں سائنس اور ٹیکنالوجی معاشی کامیابی کا لازمی ذریعہ ہیں . فاسٹ نیشنل یونیورسٹی آف کمپیوٹرز اینڈ امریکن سائنسز جو گزشتہ 17 سال سے پاکستان کی معاشی ، سائنس اور فنی ترقی کے لیے پورے عزم سے کوشاں ہے " .

Translation: “In this age of scientific progress, science and technology are an essential source of economic success. Fast National University of Computers and Emerging Sciences is determinedly striving for Pakistan’s economic, scientific and artistic development for the last 17 years”.

The commentary in Urdu said: " FAST National University ka mission behtarin Afraadi quwwat Paida karna hai".

" فاسٹ نیشنل یونیورسٹی کا مشن بہترین افرادی قوت پیدا کرنا ہے "

Translation: “Fast National University's mission is to create the best workforce”

the Urdu commentary given as follows: " ye University Computer Science, management sciences, accounting and Finance, Civil and electrical engineering, riyaaazi aur applied linguistics main undergraduate, Masters, MPhil aur Phd programs Mein Isnaad Deti Hai. Aala Tarbiyat yafta taajurbakaar issatiza hi hmari kamyabi Ka Raaz Hain. hmaray issatiza behtareen taleem aur Amli maharat aur tehqeeq k Shoboon mein Talba ke liye seekhane ki nai Rahen Khol rahe hain. Is silsilay main asatizaa seminars, lectures aur tutorials ki madad se Talba ko behtarin taleem aur amLi maahartain Sikha rahe hain . FAST National University Say har saal 2000 talba farigh ut Tahsil Hote Hain. Is tadaad ka paanchva hissa khwateen per mushtamil ha. . FAST University Koi ye Azaaz Hasil hai k 1985 mein computer science ke undergraduate program Main Pehal Ki, Jiske bad dusron ne takleed ki. Iska dusra Bada Aizaaz ye Hai k is nay Pakistan ki software industry ko behtarin tribiyat yafta afraad Muhayya kiyae hain. University ko ye fakhar Bhi Hasil hai yahan se Talleem yafta 16000 graduates aur 50 Phd mahireen Pakistan Bhar aur bairon Mulk ke Aala Taleemi aur tarrakiyati idaroon mein khidmaat Sar Anjam de rahe hain. Hamara mission yah Hai Ki taleem,tehqeeq aur funni Mahaarat ke hasool ke liye behtarin ilmi mahaul Muhayya kiya jae Jahan talba itmnaan Aur Dil Jamai k saath say padh sake".

"یہ یونیورسٹی کمپیوٹر سائنس ، مینجمنٹ سائنسز ، اکاؤنٹنگ اینڈ فائی نیس ، سول اینڈ الیکٹریکل انجینئرنگ ، ریاضی اور اپلانڈ لینگویسٹکس مینانڈرگریجویٹ ، ماسٹرز ، ایم فل اور پی ایچ ڈی پروگرامز میں اسناد دیتی ہے . اعلیٰ تربیت یافتہ تجربہ کار اساتذہ ہی ہماری کامیابی کا راز ہیں . ہمارے اساتذہ بہترین تعلیم اور عملی مہارت اور تحقیق کے شعبوں میں طلباء کے لیے سیکھنے کی نئی راہیں کھول رہے ہیں . اس سلسلے میں اساتذہ سیمینارز ، لیکچرز اور ٹیوٹورینلس کی مدد سے طلباء کو بہترین تعلیم اور عملی مہارتیں سکھا رہے ہیں . فاسٹ نیشنل یونیورسٹی سے ہر سال 2000 طلباء فارغ التحصیل ہوتے ہیں . اس تعداد کا پانچواں حصہ خواتین پر مشتمل ہے . فاسٹ یونیورسٹی کوئی یہ اعزاز حاصل ہے کہچ 1985 میں کمپیوٹر سائنس کے انڈر گریجویٹ پروگرام میں پہل کی ، جسکے بعد دوسروں نے تقلید کی . اس کا دوسرا بڑا اعزاز یہ ہے کہ اس نئے پاکستان کی سافٹ ویئر انڈسٹری کو بہترین تربیت یافتہ افراد مہیا کیے ہیں . یونیورسٹی کو یہ فخر بھی حاصل ہے یہاں سے تعلیم یافتہ 16000 گریجویٹس اور 50 پی ایچ ڈی ماہرین پاکستان بھر اور بیرون ملک کے اعلیٰ تعلیمی اور ترقیاتی اداروں میں خدمات سر انجام دے رہے ہیں . ہمارا مشن یہ ہے کہ تعلیم ، تحقیق اور فنی مہارت کے حصول کے لیے بہترین علمی ماحول مہیا کیا جائے جہاں طلباء اطمینان اور دل جمعی کے ساتھ سے پڑھ سکیں

"

Translation: The university offers undergraduate, master's, M.Phil, and PhD programs in computer science, management sciences, accounting and finance, civil and electrical engineering, mathematics, and applied linguistics. Highly trained and experienced teachers are the key to our success. Our teachers are opening up new avenues of learning for students in the areas of best education and practical skills and research. In this regard, teachers are teaching the best teaching and practical skills to the students with the help of seminars, lectures and tutorials. Every year 2000 students graduate from Fast National University. One-fifth of this number is women. Fast University has the honor of initiating the Computer Science Undergraduate Program in 1985, which was followed by others. His other great honor is to provide the best trained people to the software industry of this new Pakistan. The University is also proud to have 16,000 graduates and 50 PhD specialists serving in higher education and development institutions across Pakistan and abroad.

. Our mission is to provide the best academic environment for teaching, research and acquiring technical skills where students can study with satisfaction and dedication

Then, the video clip of the vice chancellor's interview intervened as: "our vision is to provide the best possible facilities for our students and provide the infrastructure where academics can proceed and develop in a proper way. Is Waqt Ke 5 Bade shehron mein Karachi Islamabad, Lahore, Peshawar aur Chiniot, Faisalabad main university ke jadeed sahooolatoon se araasta campuses kam kar rahe hain. University ki imarat khuli, hawadaar, aur air conditioned hain. Saaz o Saman se arsasta Laboratories , jadeed auditorium , seminar rooms aur research centres hain. Libraries main aapko Tamam ilmi sahuliyat per Kitabain aur research journals Milte Hain. Hamare hostels behtarin sahooliyat say araasta Hain. Yahan Ke cafeteria se munasib Keemat per behtareen khana Le sakte hain. FAST National University sirf talim aur Tehqeeq ke shobu mein hi behtareen idaara Nahin Hai balke Yahan talba ki ghair nissabi Sargarmiyaan Chahe Khel Ho, saqafat ho ya Technology, ko bhi nikhara jata hai. Yahan Par talba ki 12 societies hain jo ke har Tarah ke ghair nisabi sargarmiyon ke liye behtarin platform mohiya karti hai. Yahan honeHar talba aur issatizaa miljul kar apni salahiton ko ujjagar Karte Hain aur maasharay ke Sargarm aur musbat shehri ban kar ubbharte Hain. NESCON, JAZBA, Etech, job fair, convocation aur alumuni dinner Sammait FAST National University saal Bhar Mein bahut say events munaqid karati hai" .

اس وقت پاکستان کے 5 بڑے شہروں میں کراچی اسلام آباد ، لاہور ، پشاور اور چینیوٹ ، فیصل آباد میں یونیورسٹی کے جدید سہولتوں سے آراستہ کیمپس کام کر رہے ہیں . یونیورسٹی کی عمارت کھلی ، ہوادار ، اور اینٹرکنڈیشنڈ ہیں . ساز و سامان سے آراستہ لیبارٹریز ، جدید آڈیٹوریم ، سیمینار رومز اور رسرچ سینٹرز ہیں . لائبریریز میں آپکو تمام علمی سہولیات پر کتابیں اور رسرچ جرنلز ملتے ہیں . ہمارے ہوسٹلز بہترین سہولیات سے آراستہ ہیں . یہاں کے کیفے ٹیریا سے مناسب قیمت پر بہترین کھانا لے سکتے ہیں . فاسٹ نیشنل یونیورسٹی صرف تعلیم اور تحقیق کے شعبے میں ہی بہترین ادارہ نہیں ہے بلکہ یہاں طلباء کی غیر نصابی سرگرمیاں چاہے کھیل ہو ، ثقافت ہو یا ٹیکنالوجی ، کو بھی نکھارا جاتا ہے . یہاں پر طلباء کی 12 سوسائٹیس ہیں جو کے ہر طرح کے غیر نصابی سرگرمیوں کے لیے بہترین پلیٹ فارم مہیا کرتی ہے . یہاں ہونہار طلباء اور اساتذہ مل جل کر اپنی صلاحیتوں کو اجاگر کرتے ہیں اور معاشرے کے سرگرم اور مثبت شہری بن کر ابھارتے ہیں . نیسکون ، جذبہ ، ای ٹیک ، جاب فیر ، کونویکشن اور الومونای ڈنر سمیت فاسٹ نیشنل یونیورسٹی سال بھر میں بہت سے ایونٹ منعقد کراتی ہے . "

Translation: "At present, there are five state-of-the-art campuses in Karachi, Islamabad, Lahore, Peshawar and Chiniot, Faisalabad. The university buildings are open, ventilated, and air-conditioned. There are well-equipped laboratories, state-of-the-art auditoriums, seminar rooms and research centers. In libraries you will find books and research journals on all academic facilities. Our hostels are well equipped. You can get the best food at reasonable prices from the cafeteria here. Fast National University is not only the best institution in the field of education and research but also nurtures the extra-curricular activities of the students whether it is sports, culture or technology. There are 12 student societies that provide the best platform for all kinds of extracurricular activities. Here, talented students and teachers come together to showcase their talents and become active and positive citizens of the society. Fast National University hosts many events throughout the year, including Nescon, Passion, E-Tech, Job Fair, Convocation and Alumni "Dinner

There is a plethora of quick visuals presented along with the Urdu s commentary e.g., graduates showing gold medals in the convocation, Microsoft building, newspaper cuttings and pictures of successful graduates along with their achievements. There were pictures of a young graduate, Mir Zafar Ali, who is a visual effects artist and has won 3 Oscar Awards. Another graduate, Imran Khan, took part in the discovery of gravitational waves. The pictures of him getting awards, solar system and gravitational force were presented. Clips of student studying in the library, Publication

in Research journals were also included. The Urdu commentary along with that was: " Hamara fakhar yahan se padh kar gaye hue woh purazam talba hain Jo apni Aala talimi aur funni Mahaaratoon ke sabab Pakistan bhar mein aur bairun e mulk apni Madar-e -Ilmi ka naam Roshan kar rahe hain. Talim ke shobay mein Naam Paida karne ke liye tehqeeq ke maidan main kamayaab hona pahle shirt hai. Hamen Khushi Hai k Hamare iddaray ke 104 issatiza ab tuk Aala Mayar ki 210 tassaneef Ka izafa Kiya Hai. In mein se 78 tasaneef aisi hain Joe impact factor ke tahat duniya bhar ki behtarin research tasaneef Mein hawala Jatt ke liye istemal Hote Hain. Hamare nassab ul ain Mein yah Shamil Hai kya Ham taleem ki nemat ko daulat say Nahin toltay.. FAST National University ne ghareeb aur Mustahiq Talba ke liye talim ke mussawi muwaqay Muhayya kiyae hain. Hum ise apni Shandar kamyabi samajhte Hain".

"ہمارا فخر یہاں سے پڑھ کر گئے ہوئے وہ پر عزم طلباء ہیں جو اپنی اعلیٰ تعلیمی اور فنی مہارتوں کے سبب پاکستان بھر میں اور بیرون ملک اپنی مادر علمی کا نام روشن کر رہے ہیں . تعلیم کے شعبے میں نام پیدا کرنے کے لیے تحقیق کے میدان میں کامیاب ہونا پہلے شرط ہے . ہمیں خوشی ہے کہ ہمارے ادارے کے 104 اساتذہ اب تک اعلیٰ معیار کی 210 تصانیف کا اضافہ کیا ہے . ان میں سے 78 تصانیف ایسی ہیں جو امپیکٹ فیکٹر کے تحت دُنیا بھر کی بہترین سرچ تصانیف میں حوالہ جات کے لیے استعمال ہوتے ہیں . ہمارے نصب العین میں یہ شامل ہے کیا ہم تعلیم کی نعمت کو دولت سے نہیں تولتے . فاسٹ نیشنل یونیورسٹی نے غریب اور مستحق طلباء کے لیے تعلیم کے مساوی مواقع مہیا کیے ہیں . ہم اسے اپنی شاندار کامیابی سمجھتے ہیں . "

Translation: "Our pride is the determined students who have graduated from here who are shining the name of their mother of knowledge all over Pakistan and abroad due to their high academic and technical skills. Success in research is a prerequisite for making a name for oneself in education. We are pleased that 104 teachers of our institution have so far added 210 high quality essays. Of these, 78 are used as references to the best research works in the world under the Impact Factor. Our goal is not to weigh the blessings of education with wealth. . Fast National University provides equal educational opportunities for poor and deserving students. We consider it our great achievement".

An interview clip from Dr Amir Mohammed was inserted at this point as : " we try to make sure that any student who qualifies into our University through a competitive test is not refused education just because of the family's financial situation. So, we provide liberal financial assistance to the students whose families are such that they need assistance".

Again, a number of visuals stream in along with urdu commentary i.e.:" University na sirf Talba ko wazaif mukKarar karti hai bulkay taleemi ikhrajat purey karne ke liye billa sood karzay bhi Jari karti hai".

" یونیورسٹی نہ س صرف طلباء کو وظائف مقرر کرتی ہے بلکہ تعلیمی اخراجات پورے کرنے کے لیے بلا سود قرضے بھی جاری کرتی ہے " .

Translation: "The university not only sets scholarships for students but also issues interest-free loans to cover educational expenses

An interview clip from Secretary General elaborated it as: " 1000 ke kareeb kam Aamdani wale bacche Hain Jo afford nahin kar sakte jinko Hum 10 crore ke kareeb financial aid detay hain".

”1000 کے قریب کم آمدنی والے بچے ہیں جو آفورڈ نہیں کر سکتے جن کو ہم 10 کروڑ کے قریب فائینینشیل ایڈ دیتے ہیں“

Translation: " There are close to 1000 low-income children who cannot afford to whom we give financial aid of close to 10 crores."

The Urdu commentary continued:" ye idaraa mali Mufadaat ke liye Nahin Banaya Bal ke Pakistan ki Samaji, Maashi, aur scienci zarooriyaat ko pura karne ke liye Qaim Kiya gaya hai. Hamari Foundation ke funds kissi bhi ghair mulki idaaray se nahin Aate".

" یہ ادارہ مالی مفادات کے لیے نہیں بنایا بلکہ پاکستان کی سماجی ، ماشی ، اور سائنسی ضروریات کو پورا کرنے کے لیے قائم کیا گیا ہے . ہماری فاؤنڈیشن کے فنڈز کسی بھی غیر ملکی ادارے سے نہیں آتے

Translation: "This institution was not created for financial gain but to meet the social, material and scientific needs of Pakistan. The funds of our foundation do not come from any foreign institution."

Once again, the interview from the founding rector and chairman Board of governors elaborated: " this university is a private sector University. We fend for our selves financially.we raise our funds mostly through student fee".

The Urdu commentary continued:" Yahan kay tammam Shobha Jaat bashamool dakhla, intizaamiya, dafatir, faculty, research aur Hamare wasail mein shafifiyat ko buniyadi shart Samjha Jata ha. Behtareen Kirदार ke Hamil insanon ki tashkil Hamari koshish ka laazmi markaz hain".

یہاں کے تمام شعبہ جات بشمول داخلہ ، انتظامیہ ، دفاتر ، فیکلٹی ، رسرچ اور ہمارے وسائل میں شفافیت کو بنیادی شرط سمجھا جاتا ہے۔ بہترین کردار کے حامل انسانوں کی تشکیل ہماری کوشش کا لازمی مرکز ہیں۔

Translation:"Transparency in all areas including admissions, administration, offices, faculty, research and our resources is considered a basic condition. Creating the human beings who have best character is an essential part of our endeavor “.

A female student, Esha Tahir, commented:" something that's really good about FAST is that it makes you have a general out look at life differently than just focusing on your Academic purposes. So, it's going to teach you how to be professional, how to be a better human being. that's something that really doesn't come with other institutions".

Urdu commentary continued after it as:" Hamari koshish sirf ya nahin ke Aala Sainsdaan aur Mahireen Paida Karen balke Hamara maksad Hai ke muttawazan kirदार wale behtarin Kirदार ke hamil afraad Paida kiya jaayen Takay Pakistan aqwaam-e- Alam mein surkhrooh sake".

" ہماری کوشش صرف یا نہیں کے اعلیٰ سائنسدان اور ماہرین پیدا کریں بلکہ ہمارا مقصد ہے کے متوازن کردار والے بہترین کردار کے حامل افراد پیدا کیا جائیں تاکہ پاکستان اقوام عالم میں سرخرو ہو سکے " .

Translation: “Our effort is not only to produce top scientists and experts, but also to create the best people with balanced roles so that Pakistan can be a servant in the world".

ii. Qurtuba university

A member of the staff gave information about the university in Urdu language as: "Qurtuba University of Science and Technology jo 2001 mein establish Hui, Iske baani professor Abdul Aziz Khan Niyazi, uska naam Qurtuba University Rakha. Iska paise Manzar yeh Hai Ke Jo undalas, Spain main wahan Jo qurtuba City tha us zamane mein ye musalmanon ka ek bahut bada Taaleemi markaz Tha jahan per Europe se bhi aur Puri Duniya Se log Aate the talim Hasil karnay. Muajooda Zamana Jo Hai ismein musalmanon ka Jo Puri Duniya Mein zawal Aaya Hua Hai usi Ko Madhya Nazar rakhte hue Aziz Khan Niyazi marhoom ne is idaaray ka naam Qurtuba rakha".

"قرطبه یونیورسٹی آف سائنس اینڈ ٹیکنالوجی جو 2001 میں اسٹیبلش ہوئی ، اس کے بانی پروفیسر عبدل عزیز خان نیازی ، اسکا نام قرطبه یونیورسٹی رکھا . اس کا پس منظر یہ ہے کہ جو اندلس ، اسپین میں وہاں جو قرطبه سٹی تھا اس زمانے میں یہ مسلمانوں کا اک بہت بڑا تعلیمی مرکز تھا جہاں پر یورپ سے بھی اور پوری دنیا سے لوگ آتے تھے تعلیم حاصل کرنے . موجودہ زمانہ جو ہے اسمیں مسلمانوں کا جو پوری دنیا میں زوال آیا ہوا ہے اسی کو مد نظر رکھتے ہوئے عزیز خان نیازی مرحوم نے اس ادارے کا نام قرطبه رکھا ."

Translation: "The Cordoba University of Science and Technology, which was established in 2001, was founded by Professor Abdul Aziz Khan Niazi, named it after the University of Cordoba. It was a huge educational center where people from Europe and all over the world used to come to get education. Keeping in view the current decline of Muslims all over the world, the late Aziz Khan Niazi named this institution as Cordoba."

A Staff member again commented: " Qurtuba University ka kiam jo hai Ek missionary Jazbay ke tahat hai. Yahi jazba ha k bahut Thode Hi arsaay Mein Qurtuba nay kaafi tarakki ki hai. Qurtuba nay abhi tuk taqreebun 58 top Phd s Farigh Kiye Hain, 192 MPhil graduates farigh huay aur yah Alhamdulillah, Hamare liye fakhar Ki Baat Hai k jitne bhi Hamare young graduates forever hai ine ki placement behtar in Jagah per Ki Hai".

" قرطبه یونیورسٹی کا قیام جو ہے اک مشنری جذبے کے تحت ہے . یہی جذبہ ہے کہ بہت تھوڑے ہی عرصے میں قرطبه نئے کافی ترقی کی ہے قرطبه نے ابھی تک تقریباً 58 ٹوپ پی ایچ ڈی فارغ کیے ہیں ، 192 ایم فل گریجویٹس فارغ ہوئے اور یہ الحمد للہ ، ہمارے لیے فخر کی بات ہے کہ جتنے بھی ہمارے ینگ گریجویٹس فارغ ہوئے ان کی پلیس منٹ بہترین جگہ پر کی ہے ."

Translation: "The establishment of the University of Cordoba is under a missionary spirit. Cordoba has made great strides in a very short period of time. Cordoba has so far graduated about 58 PhDs, 192 M.Phil graduates and "Praise be to God, we are proud that all our young graduates have had their place in the best place."

ii Tables of dynamic text

a. Tables of videos of Public sector

- i. Air University: Air University Islamabad Documentary 2018 HD
- ii. COMSATS Institute of Information Technology: Comsats virtual tour video on the Home Page http://cast.org.pk/virtual_tour/
- iii. National University of Modern Languages: Life at NUML Home Page

COMSATS

Sr.#	Link	Mode	Signifiers	Theme
	Home Page Comsats virtual tour video http://cast.org.pk/virtual_tour/	Picture	outer view from gate one of the university.	G
		audio+ pictures	some background instrumental music of a famous patriotic song along with visuals of the university.	P
		vector buttons/ pointers for Site navigation (icons/ map)	many options to watch this video in addition to the play button e.g., zoom in, zoom out, reload, rewind, forward, view from all four directions i.e. North, East, West, south. a real experience for the website audience and the main sites of the university does not remain unfamiliar even to a stranger.	P
		pictures+ captions audio (music/sound)	showing the reception area surrounded by green plantation and flower beds. The captions show different academic blocks and sites of the university i.e. mosque, library, cafeteria etc. around the blue sky, clean pavements and green areas in the background. Though background music, no background voice or commentary. The brief captions.	G

Air university

Sr.#	Link	Mode	Signifiers	theme
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	Air University Islamabad Documentary 2018 HD	audio (music/sound)	00:01 -00:08 [Music]	P
		background commentary/ verbal oral text	00:12 “the University's main campus is located at the lush green foothills of Margalla in sector E-9 Islamabad”. “an elegant state-of-the-art accord campus attracting the best students faculty and staff for the development of a peaceful and enlightened society”	G
		background commentary/ verbal oral text	“the university aspires to be among the leading national universities excelling in teaching, learning, research, innovation and public service”	SS & EFS
		background commentary/ verbal oral text	Mentioning of different faculties i.e. the Faculty of Engineering ; the Faculty of Administrative Sciences ; the Faculty of Basic And Applied Sciences ; The Faculty of Social Sciences; The Institute of Avionics and Aeronautics IAA –	P & SS
		background commentary/ verbal oral text	research projects focusing on micro electromechanical system -	SS
		background commentary/ verbal oral text	awarded the prestigious grant by a British Council and HEC Pakistan-	EFS
		background commentary/ verbal oral text	to establish a research as a strategic collaboration with the University of Cambridge United Kingdom. University was one of only five such universities selected by the British	SS

			Council as role models for effective knowledge exchange between academia and Industry.	
		background commentary/ verbal oral text	over 20 engineering laboratories at a university all in sync with scientific progress and technology. Each department has its own customized lab. its own private optical fibre network and a local area network for campus-wide internet connectivity. language laboratory furnished with multimedia facilities and audio-Visual tools-	SS
		background commentary/ verbal oral text	Near university's large central library has a print collection of more than 16,000 books 20 serial publications and eight magazines with three journals. There is also campus-wide access to more than 22,000 electronic journals available through the HECS digital library.	SS
		background commentary/ verbal oral text	Air university societies through its clubs which instill leadership, organization and management skills, adventure club. The cultural society - career fairs, projects exhibitions and internships and on-campus employment, resume writing workshops, interview skills, seminars in lectures.	EFS
		background commentary/ verbal oral text	The counseling cell	EFS
		background commentary/ verbal oral text	encourages sports for students to develop physically as well as mentally competitive events like interuniversity sports and galas.	EFS

		background commentary/ verbal oral text	The large cafeteria. own transport fleet.	P, EFS
		background commentary/ verbal oral text	monthly magazine named 'in the air' with information in various social and technological fields. The university's management has developed strategic ties with renowned international universities to benefit from the learning of international scholars.	EFS
		background commentary/ verbal oral text	Mission of a university is to achieve excellence in teaching and research to produce graduates with sound professional knowledge, integrity, character, a keen sense of social responsibility and a passion for lifelong learning, quality education and sound citizenship".	EFS
		logo, color	The video starts with logo of university in blue color.	G.
		audio, background commentary/ verbal oral text	A background voice with some light music is giving commentary on all the visuals shown in the video.	P
		picture , logo	picture of the main building of the university surrounded by greenery all around. The Pakistani national flag along with university's logo flag was hoisted at the top of the building.	P
		Photos	Some inauguration pictures of the university with chief guest, famous personalities of the country	P
		photo, pictures	Image of famous lush green Margalla hills, famous Faisal mosque, tall	G

			buildings and busy roads in Islamabad were also presented to show the location of the university. The students coming and going through green studded sites of the university.	
		pictures+ caption	Students and faculty busy academic activities in and out the classroom while also shown in some shots. The visuals of filling out the admission forms, University Campus in Multan showing the clip of inauguration speech of the special guest and written Vision/ Mission were also shown.	P
		Pictures	The visuals of learning and teaching situation of modern classrooms also shown. Highly qualified faculty teaching with latest audio visual aids and resources also highlighted.	
		Pictures	the strategy of quality enhancement cell also communicated through visuals of student- teacher ratio, modern engineering and Management department. The faculty of Engineering department promoted by showing the number of students and the related latest equipment. It is quite an extensive program of the university- two major branches that is department of electrical engineering and the department of mechatronics engineering.	SS
		Pictures	The other most promoted program was of Administrative Sciences showing the teacher student interaction in the classroom. The faculty of basic and Applied Sciences was described which had further departments under it like Computer	SS

			Sciences and Engineering, mathematics, physics. The Faculty of Social Sciences and departments like Humanities further branching into English, Pakistan Studies, Islamic studies and Sociology. All these descriptions were accompanied by Visuals of teacher student interaction, students studying together and using latest equipment.	
		Pictures	A major distinction of this university is the institute of Avionics and Aeronautics. The spacious building of this Institute was shown in the visuals. Activities in mechanical engineering, Aero space engineering and avionics department. Its achievements were described showing professionals operating the related equipment and doing research. Industrial linkages were also shown. Specialized labs for each department were also illustrated in the visuals. Optical Fibre network and Local area networks were also shown.	SS
		Pictures	The central library with large collection of books and digital resources.	SS
		Pictures	The activities of clubs and societies of the university. projection of the placement office and its activities, workshops and seminars number.	EFS
		Pictures	The counselling cell and medical facilities were also showcased.	EFS
		Pictures	Sports activities and games .	EFS
		Pictures	The transport services were captured in the visuals.	EFS

		Pictures	The shots of monthly magazine 'in the air'.	EFS
		Pictures	Linkages with international universities on the screen. The Pictures of young students with their keen interest.	EFS
		Pictures	The convocation photos and clips of chief guest address.	EFS
		logo, contact links	The video ended with the logo of University and provided the link for further information.	SS

LIFE at NUML

Sr.#	Link	Mode	signifiers	theme
	Life at NUML Home Page	Logo	The first visual is the logo of the university	P
		audio+ pictures vector buttons/ pointers	background music with the photo of the main entrance and the first main administration block of the university. In front of the building, the sign posts in blue and white color point out the directions of different sites of the university like library, blocks, hostels, cafeteria etc. A very quick outer view of all the blocks and sites presented within few seconds. Then, students belonging to both local and foreign areas studying and moving in green lawns, library, cafeteria and pavements of the university. A media lab set up by the department of mass communication was also shown followed by the scene of broadcasting room in which a person recording a program with the relevant equipment.	G

		picture, language (Arabic)	The outer view of central library building on which there is engraving of Arabic verse related with education which is translated in 10 different languages was shown. The Arabic verse $\text{خَلَقَ الَّذِي رَبِّكَ بِاسْمِ أَقْرَأَ}$ which is translated as: “Recite with the name of your Lord Who created”(1).	SS
		pictures+ background commentary/ verbal oral text (oral interview)	An AV room, the gym, and outer view of administrative block surrounded by trees and flowers. After it, comes the interview clip of the then rector of the university, Major General Zia Uddin Najam, HI (M)(RETD), who introduced NUML as: “National University of Modern Languages has a unique distinction because... perhaps we are the only university which offers languages courses starting from functional courses up to PhD level and we have properly organized departments...separate department for each language”.	G SS
		picture+ background commentary/ verbal oral text	The next is the scene of class room interaction where students were listening to the teacher with interest followed by a scene of several students walking around with the caption saying “accommodates around 13,000 students every semester”.	EFS
		Picture	Quick visuals also come in after this and the next interview clip i.e. Different teachers are teaching different languages in the class especially foreign teachers like Chinese, Korean, Japanese, European etc. ; students sitting in their language labs, teaching through AV aids like	SS

			offering something like 29 occidental and oriental languages. Our another distinction is that we also offer languages as part of under graduate and all graduate programs, and over a period of time, we have produced certain high quality linguistic professionals”.	
		picture+ verbal oral text (oral interview)	The visuals accompanying it were: Taking out from a drawer, the library cards with Hindi written on it; Classrooms decorated with charts and maps showing student teacher interaction.	EFS
		picture+ captions+ verbal oral text (oral interview)	the shot of two Chinese students studying on a grass pasture with the caption “800 foreign nationals enrolled in various disciplines” was shown. The interview clip of Dr Liu Yao (HOD Chinese) was “Besides already chinese language classes, we have also launched a series of cultural promotional events, teachers training and many other activities”. The relevant visuals running along this clip were: Chinese teachers teaching Chinese language to students both at one on one level and as a whole class. A student standing on the dice and participating in inter departmental speech and audience belonging to different nationalities -	EFS EFS EFS
		pictures+ captions	with the caption “facility of auditorium for different events”.	G
		pictures+ captions+ verbal oral text (oral interview)	i. Dr Khalid Iqbal Yasir (HOD Translation & Interpretation) introduced his department as : “The department of Translation	SS

			<p>& Interpretation caters for the requirements of translation industry and market at national and international level. We are offering certificate program and BS translation and interpretation program in multiple languages”.</p> <p>ii. The accompanying visuals with and after this visual was : students sitting together with a desktop in front and involved in discussion; a number of laptops available, tall buildings with caption “hostels for boys, girls and foreigners showing that building.</p>	G
		picture+ verbal oral text (oral interview)	<p>The interview clip of Dean Faculty of English, Dr Muhammad Safeer Awan, rendered the introduction as: “The faculty of English studies at NUML has been one of the largest faculties that is comparable to any faculty in any university in Pakistan. It consists of three departments from the foundational courses to the post graduate level... a kind of a teaching that we provide in these departments. We have more than 20 PhDs teaching in our faculty. Similarly, more than 50 of our faculty have acquired their MS and MPhil degrees and overall, more than 200 faculty members are associated with the faculty of English studies”.</p>	SS
		picture+ caption	<p>Students chatting in groups around the trees and sitting on the pavements sharing their thoughts ; Teacher</p>	SS

			teaching on power point slides on LCD in the classroom, students making notes in the library and big book racks filled with books in the library with the caption “state-of-the-art-library”.	
		picture+ verbal oral text (oral interview) picture+ caption	<ul style="list-style-type: none"> i. The clip of Rector NUML, Major General Zia Uddin Najam, HI(M)(RETD), again was included as: “Other than languages, we also offer courses in engineering, computer sciences, management sciences, social sciences. ii. The visual clip after it came as showing the campus block from outside , surrounded with trees, with caption “alumni strength of over 35,000”. 	SS G
		picture+ verbal oral text (oral interview)	Dr Muhammad Akber (Dean Faculty of Engineering & Computer Sciences) commented as: “It is youngest but the most dynamic faculty of NUML.... we are the only faculty which is offering the program which needs latest trends and challenges of 21st century in the information and communication technology”.	SS
		Picture	The next visual was showing the campus lawns filled with blooming flowers and green grass and students walking around it;	G
		Picture	Teacher instructing in language labs and students busy learning on their desktops -	SS

		picture+ captions+ verbal oral text (oral interview)	showing the department building of Faculty of management sciences from outside followed by interview clip of Brig(R) Dr Maqsd-UI-Hassan (Dean, Management Sciences) introduced as : “We are committed to provide real high quality business education to our students with due regard to the emerging and prevailing trends in the international market. The main thrust lines of our business education are towards entrepreneurship and nurturing, grooming such business traits and qualities among our students that with further experience in due course of time, they become good business executives”. The Visuals along with it were: two students are sitting in the green lawn discussing some notes; Students reading books sitting outside. After it, comes an inner view of broadcasting room showing the person operating the equipment with the caption “facility of campus radio”.	EFS
		picture+ verbal oral text (oral interview)	Dr Sufiana Khatoon Malik, the Dean Faculty of Social Sciences, introduced the faculty as “Faculty of Social Sciences is one of the most dynamic faculties of National University of Modern Languages and it is dedicated to make contribution in achieving vision/ mission. The departments of mass communication, education and applied psychology, Peace and Conflict studies, international relations, Pakistan studies and Islamic studies of the faculty have been providing conducive learning environment for students by equipping them with	SS

			knowledge and skills that is required for citizens of 21st century”.	
		Pictures	The Visuals running along with it were: students moving towards the campus buildings, two students sitting in the library reading books, student sitting outside the department and making notes, students in the classroom noting lectures while the teacher is explaining, Student working on the laptop in library.	G
		picture+ captions	After it, a scene of the blue buses at the bus stand of university and moving out with the caption i.e. “A Fleet Of 28 Buses For Students”.	P
		pictures+ verbal oral text (oral interview) ; logo ; contact link	<p>i. The last interview clip was of the rector, Maj. gen. Zia Ud din Najam, who rounded off the video as: “So, it has not only become a centre of excellence but the diverse university of all general subjects”.</p> <p>ii. The visuals accompanied were of the same rector addressing a convocation, the view of admin block ending the video with the name of the university, its logo and website address.</p>	SS P

NUST

Sr.#	Link	Mode	Signifiers	theme
	No video officially uploaded on that time	picture+ background commentary/	all in short sentences. The text in video is in white font color with less opaque blue circle that appears to float in from the left side and disappears towards the	G

	NUST video made by student videos section	verbal oral text, color	right end of the slide. The background of each heading or information contains relevant Pictures and short clips captured inside the university.	
		audio (music/sound)	a light yet energetic instrumental music that plays in the background throughout the video.	P
		pictures, logo, color, social media links	Most of the clips and images are of the Islamabad campus. At the end of the video, there is an image that contains NUST logo and emblem in white color and centrally aligned. Right below the logo and centrally aligned is the full name of university in white color and smaller font size. Other text and information that follows it is also centrally aligned. After the name, the campus locations are mentioned in capital letters. Website of the university is mentioned below it after a single space and in bold font style. The last piece of information that follows is the social media profile links of the university and the UAN number. All information is placed on blue background.	G
		picture+ captions ; color	The first image in the background, with which the video starts with, is the aerial view of NUST Islamabad campus captured through a drone camera. The university covers a vast land area surrounded with large green patches too. This short clip is followed by another drone captured image of campus headquarters. The captions i.e. “NUST”,	EFS. G

			<p>“Islamabad” and “Public research university” appear on the top of the buildings. white font text on blue colored circles at the back. The heading says “NUST is Pakistan’s Leading University” followed by smaller size text mentioning the achievement of university in terms of rankings with regard to the world as on number 417th, 87th in Asia, 51st fastest growing universities under 50 years old. The text fades away as blue circles slide to the right to disappear.</p>	
		picture+ captions	<p>A diagonal white line sweeps from bottom left to top right and displays another clip. The clip features fast pace zoomed out view of hostels and different institutes such as IESE. The same theme follows with information on presence of university nationwide. The text is left-aligned of same size. The text reads “4 cities, 6 campuses, 18 constituent institutions, 129 programmes”.</p>	P
		picture+ caption	<p>The next clip shows students inside a big exam hall followed by military branch students or cadets inside a big lecture room with blue chairs and grey desks. The students looked anxious and keen interest like in an entrance exam or interview waiting room. The caption on it came over as: “4% acceptance rate, merit based admission, 16,062 students, 502 PhD faculty”. Both rooms have white walls. These two short clips are followed by a drone captured shot of military cadets in white uniform in rows</p>	SS

			on university ground and this slide ends with their zoomed-in video.	
		pictures+ captions	The next heading is regarding research facilities with the caption “state-of-the-art labs and facilities” and “R&D aligned with industry and society needs” which features short clip of a teacher and students discussing some work followed by images of computing systems and equipment and ending with a robot designed and developed by students performing a task followed by students working on their systems in a lab.	SS
		slideshow, picture+ caption	The next slide is of internships which features 4 short clips in the background, with first one showcases a female student studying with caption phrases as “100% internships, 93% graduates employed, 530+ entrepreneurs”.	EFS
		pictures+ caption	The second clip shows the interior and exterior of campus building from different angles. It gives impression of spaciousness and greenery. The background features drone capture shots and aerial views of the buildings of Islamabad campus initially focusing on the head office building. The theme and effects are the same as the previous parts. The caption on it says: “Need based Scholarships, USD 16 million since 2010 for 1500+ students”.	EFS
		picture+ caption	The third one shows a student working in lab and then short clip of lab of bioinformatics department. “International linkages-140 institutions, 32 countries” is the next caption and shows international students holding a	SS

			discussion in the background. followed by a short clip of an international students working in a bio lab. This part ends with another international student studying on his desk. The fourth one features a small robot developed by students of robotics major.	
		pictures+ caption	The next part captioned as “World Class sports facilities”. This also features 4 x 4 grid layout i.e. four equally sized grids with each containing four separate clips. The first one showcases the riding club facilities, the second one the gymnasium for students. The third one features students playing table tennis. The last one features the basketball court. These clips are replaced by indoor sports hall, students playing on football ground, the squash court, and football ground in all four grids respectively.	EFS
		pictures+ caption	The next part is of student clubs and societies. This features the environment club carrying out their clean drive i.e. to clean the parks and grounds from trash. The next clip of the background is of a past concert. The concert is of local famous band “Noori”. It was captioned as: “30+ student societies” and on the sub captions “community service, entrepreneurship, literary/ fine arts, adventure & sports, environment, entertainment & media”. This is followed by a visit and talk given by a well-known Pakistani actress, Mahira Khan, inside the campus. This is followed by another concert clip in which students can be seen enjoying to the tune in blue and red lights. This ends	G. EFS

			with a group of NUST students performing at an event.	
		pictures+ caption	The next caption is of “campus care” which is sub captioned as “accommodation, medical services, cafeterias and shopping centers”. The first clip in the background is of students sitting near the lake inside NUST, Islamabad campus during winters. This is followed by a clip of cricket match being played on a TV inside male hostel lounge with students clapping. This clip is followed by a male student studying outside the cafeteria on the ground. Few girls are shown walking on the campus road after this. Then, a clip is displayed of students eating in the student cafeteria. The last clip that follows is of a male student singing in his room while playing his guitar.	EFS
		pictures+ captions	“Diversity and inclusion” is the title of the last part of the video, in which international students are shown standing and listening to a lecture. The sub captions were: “cultural diversity, socio-economic inclusion, equitable environment for the differently abled”. This is followed by a clip in which these students are attending a lecture or talk inside the seminar room and laughing.	EFS
		pictures+ captions, color, logo	The last part fades out and a blue background with white text appears. The first word is “defining” which stays fixed and the second word changes. The first word in the second position is “research” replaced by “innovation” after few seconds. Then, “entrepreneurship” appears.	SS

			“Excellence” is the next word in line. And the last word is “Futures”. ‘Defining’ written in bold while the changing words mentioned in regular font style. as the objectives of the university. ‘Defining Futures’ is the main slogan of the university and part of the logo as well.	
		pictures+ captions, logo, social media link	After the mentioning of objectives or vision/ mission of the university, NUST emblem and logo with contact details, social media links, website address.	P /EFS

a. Tables of videos of Private sector

- i. IQRA University, Karachi, Islamabad, Quetta: IQRA University (Two Minutes Tour of IU) Home Page
- ii. Qurtaba University, Peshawar, KPK: Qurtaba official on you tube
- iii. iii. Hamdard university: [Life at HU – Hamdard University https://hamdard.edu.pk/life-at-hu/](https://hamdard.edu.pk/life-at-hu/)
- iv. FAST-NUCES: FAST National University
- v. University of Lahore: UOL, Islamabad campus video

The University of Lahore

Sr.#	Link	Mode	Signifiers	Theme
	University of Lahore UOL, Islamabad campus video	logo, pictogram	logo as pictogram of famous monument in Lahore City of Pakistan i.e. Minar-e-Pakistan.	G
		Color, verbal written text	green colored font	G

		color, logo+ captions	Throughout, the captions in green or white color	G
		audio (music)	optimistic sort of background music	P
		picture+ captions	an aerial view of the university surrounding area. The zoom in shot gives a closer view of the location and building structure of the university. The first caption says "among top ranked universities of Pakistan"	EFS
		picture +captions	The second shot closer aerial view showing the corridors and floors of the building filled with a number of students with the caption i.e. "fully equipped Engineering Labs".	SS.
		picture+ captions	The third shot zooms out with the inner pathways and buildings with the two captions i.e. "Recognised by HEC" and "hostels facility".	EFS.
		picture+ captions	The fourth shot - the view of open areas in the university including the parking area with the caption "vast playgrounds to encourage physical health and sportsmanship among students".	G
		picture+ captions	a scene of cafeteria with the caption "hygienic meals for you to enjoy in the University cafeteria". scene involved customers busy in purchasing and an image of parathas being fried on the stove with the caption as food of your choice.	G.
		picture+ captions	The next image a bit far view from the height showing the University area surrounded by large green patches around	G.

			with the caption "everyday bus facility to and from the University Campus".	
		picture+ captions	scene of students studying in the library with the moving caption i.e. "Best learning environment".	G.
		picture + captions	A scene of a computer lab showing students working with their desktops in front and the caption said," digital computers to allow students embrace modern technology".	SS.
		picture+ captions	another image of library in which a student was shown picking up the book of his choice from the book rack. The caption on it was "well equipped library with more than 20000 books covering all the disciplines".	G.
		picture+ captions	the scene in a scientific lab where students were discussing with the help of models like human skulls, digestive system. The caption "highly qualified teachers and fully equipped medical Labs".	SS .
		picture+ captions	few young students sitting in the cafeteria were shown to be involved in chit chat with the caption presenting "friendly environment".	G.
		picture+ captions	The shot following after it also showed few students sitting together and writing something on their notebooks. On it, the caption was "group study environment".	G.
		picture+ captions	An open space area of the university surrounded by trees	G.
			with the caption of "programs offered 1. Pharmaceutical Sciences 2. Engineering	SS

			and Technology 3. Allied Health Sciences 4. Business and Management Sciences".	
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Hamdard University

Sr.#	Link	Mode	Signifiers	theme
	_Life at HU – Hamdard University https://hamdard.edu.pk/life-at-hu/	picture	an aerial view of the university on a welcoming note. The main entrance of the university green area around	G
		audio (music)	some background music along with the visuals; optimistic and progressive sounding music.	P
		photo	Different sites and buildings of the university .	G.
		picture+ captions	A model of a book built at the entrance bears the caption as "25 years of academic excellence".	SS.
		picture+ captions	the outer view of the main building i.e. 'bait-ul-hikma' and then the zoom in view of the admin office which is full of students busy in getting information and waiting for their turn. On this, the given caption was "Pakistan's first private University" and "magical place for quality education" coming one after the other.	SS.
		picture+ captions, map	i. After this, a large world map set up somewhere in the university was presented which lead to a large reading room where students were sitting and studying together.	SS.

		picture + caption	ii. Then, came the scene of computer lab students sitting in front of the desk tops and working on the computers. It ended with the caption "a place where you can do and be anything".	
		picture + captions	view of the library journals placed on the racks with the same previous caption.	SS.
		picture+ caption, photos	view of a large hall like corridor decorated with some photos of historical places and the founder of this university leading to a big library with several books and students benefiting from them. The caption says "South Asia 's largest library".	SS.
		picture+ captions	students studying there and various books in the racks with the caption "potential dreams and creative master minds".	SS.
		picture+ caption	The turning of pages leads to another scene in which some female students were seen walking in the corridors and chatting together happily. the caption of "given freedom and encouragement".	EFS
		picture+ captions	The next scene also shows some students wearing lab coats and discussing their observations in the scientific and medical Labs. The caption says "this is where my future is safe". The shot of students discussing and front of discussing in front of models of human skeleton bears the caption "From medicine to Pharmacy". Another shot of the lab short students observing through microscopes with the caption " they trust me as much as I trust them".	SS.

		picture+ caption	Then, students playing football in the green grounds with the caption i.e. "This is where I learned to be brave".	EFS
		picture+ captions	a quick shot of students coming in and going out of the department and then entering into fully equipped labs and classrooms with the caption "making the right choice", the students working on electronic devices with the caption "that I can try anything myself".	EFS
		picture+ captions	The scene of students working in computer Labs with the caption " information Technology to law".	SS.
		picture+ captions	An aerial view of the university buildings with green patches around leads to the building of 'Faculty of Eastern medicine' where the students were shown the dissecting the dead bodies and studying about structures and bones along with their teacher with the caption "they trust me as much as I trust them" and "This is what my heart crave".	G merged with SS
		picture+ caption	Another visual of students studying in the classroom carries the caption "from management to philosophy" and "planting the seed through hard work and through investment in mind".	SS
		photo+ caption	Next is the building of student teacher centre with the caption "Hamdard University, your future awaits you".	EFS
		picture+ captions	Several beautiful buildings with green plantation around. In the end, grey and blue coloured building with the caption "Hamdard University City campus"	G

Iqra university

Sr.#	Link	Mode	Signifiers	Theme
	IQRA University (Two Minutes Tour of IU) Home Page	Color	The main campus of the university. the blue sky along a large white colored building adjacent to the greenery all around and the name of the university engraved on the green shrubs in front of the building.	G
		audio (music)	with the background music	P
		pictures+ caption	the movement of the students in and out of the building. Then, a building viewed ascendingly captioned as 'EDC tower'.	EFS.
		pictures+ caption	A classroom scene shown with students having desktops in front of them. captioned as "state of the art classrooms with multimedia".	SS.
		pictures+ caption	library showing students sitting around, taking out books from the racks and studying together with the caption" library with 175+k books".	SS.
		pictures+ caption	A view of a computer lab showing students working with the caption "digital research lab".	SS
		pictures+ caption	View of a large hall provided with several chairs with the caption "main auditorium".	G
		pictures+ caption	view of a lab captioned as 'iMac lab' with sub caption i.e. 'with 100+ latest iMacs' was also shown. Next was the shot of lab and electrical equipment captioned as ' Engineering Labs'.	SS
		pictures+ caption	The caption of 'film studio' on a camera recording programme of the youth sitting	SS

			around in a discussion. The audio equipment and the students playing musical instruments with the caption 'sound stud'.	
		pictures+ caption	A scene of a gym in which male students doing exercise on the machines captioned as 'boys gym' while the other one for females captioned as 'girls gym'.	G
		pictures+ captions	A large pool with clear blue water captioned as 'swimming pool'. A boy diving in the pool with the caption as 'jacuzzi' and separate saloon rooms as 'steam bath' and 'Suana bath'. Then, students were shown playing basketball, badminton, volley ball captioned as 'basketball court' and 'badminton court' respectively. Students playing snooker and table tennis was captioned as 'snooker room' and 'table tennis room' respectively. There were scenes of students learning martial arts labelled as 'mixed martial arts classes', students learning music labelled as 'music classes'.	G
		pictures+ caption, logos	Shots of students busy in job fair labelled as annual job with 100 + organisations. the logos of those organisations with Agra University in the centre.	EFS
		picture+ caption	a person doing transaction on the ATM which was captioned as 'on campus ATM'.	G
		picture+ caption	A visual of a student surfing on a tab was captioned as 'Wi-Fi facility'.	SS
		verbal written text	the name of the university followed by the sub caption of the slogan of the university i.e. 'Where your future begins'.	EFS

FAST-NUCES

Sr.#	Link	Mode	Signifiers	Theme
	FAST-National University	picture+ verbal written text	a shot of early dawn with clouds and sky being illuminated by the sun. On it, a quotation by famous writer, Bertrand Russell, was written as "science may set limits to knowledge but should not set limits to imagination".	G SS
		pictures	a few formulas with the name of the university in the centre appeared on the screen. Students were seen operating the equipment, working in the computer labs, interacting with the teachers in the classroom, reading books in the library.	SS
		pictures	participating in sports activities, moving in and out of campus gardens.	G
		pictures, logo, language (Urdu)	the logo of the university along with its name appeared on the screen which scientific and mathematical formulas following it. After it, the background commentary started in Urdu language along with the visuals.	SS
		pictures+ background commentary/ verbal oral text	Along with the commentary, several visuals appeared on the screen like students coming in and out of the beautiful lawns within the University buildings	G
		pictures+ background commentary/ verbal oral text	Students operating the electrical equipment and working in the computer Labs. Key words in commentary:" science and technology"; "committed to artistic development"	SS

		picture+ verbal oral text (oral interview)	Next is the interview clip of the vice chancellor of the university, Wasim Sajjad, introducing it in English language as : "FAST which stands for the foundation for the advancement of Science and Technology established in the year 1980 by justice Ikhlaaq Hussain and Agha Hassan Abidi. Their vision was Pakistan cannot be established as a strong country unless we have excellent education in the field of Science and Technology.	SS
		picture+ background commentary/ verbal oral text	During this commentary, some scenes like pictures of the founders, classroom note taking, students operating equipment, Karachi campus building, Lahore campus building , convocation group photo, inauguration of Chiniot, Faisalabad campus by the president Mamnoon Hussain etc. rolled in quickly.	EFS.
		pictures+ background commentary/ verbal oral text	The commentary continued along with the Visuals i.e. the beautiful lawns of the campus, student teacher interaction in the classroom, operating equipments, students coming in and out of the corridors.	G
		background commentary/ verbal oral text	The commentary in Urdu said: "Fast National University's Vision/ Mission is to create the best workforce"	EFS.
		picture+ verbal oral text (oral interview)	Next was the comment of the founding rector and chairman Board of governors, Dr Amir Mohammed, who said: "the main objective was to train quality manpower for Pakistan, to provide an environment for quality training for brilliant students so that they can play a role in national development".	EFS.
		pictures+ background	the scene of students coming in and out of the main building, peers discussing in the computer lab, operating electrical equipment,	SS

		commentary/ verbal oral text	learning through LED projectors, teaching through electrical lab models, group study, library scenes, advanced scientific equipment etc.	
		background commentary/ verbal oral text	“offers undergraduate, master's, M.Phil, and PhD programs in computer science, management sciences, accounting and finance, civil and electrical engineering, mathematics, and applied linguistics”. “Highly trained and experienced teachers” “in the areas of best education and practical skills and research”. “with the help of seminars, lectures and tutorials”. “has the honor of initiating the Computer Science Undergraduate Program in 1985, which was followed by others”. “other great honor is to provide the best trained people to the software industry of this new Pakistan”. graduates and PhD “specialists serving in higher education and astronomy institutes across Pakistan and abroad”. “the best academic environment for teaching, research and acquiring technical skills”.	SS
	Vision	picture+ background commentary/ verbal oral text	the video clip of the vice chancellor's interview intervened as:" to provide the best possible facilities for our students and provide the infrastructure where academics can proceed and develop in a proper way"; “five state-of-the-art campuses in Karachi, Islamabad, Lahore, Peshawar and Chiniot, Faisalabad”.	EFS.
		background commentary/ verbal oral text	“buildings are open, ventilated, and air-conditioned”.	G
		picture+ background	“well-equipped laboratories, state-of-the-art auditoriums, seminar rooms and research	SS

		commentary/ verbal oral text	centers”. “books and research journals on all academic facilities”.	
		background commentary/ verbal oral text	“ hostels are well equipped”. “the best food at reasonable prices from the cafeteria”. “also nurtures the extra-curricular activities of the students whether it is sports, culture or technology”. “12 student societies that provide the best platform for all kinds of extracurricular activities”. “talented students and teachers” “ active and positive citizens of the society”. “ hosts many events throughout the year, including NESCON, Passion, E-Tech, Job Fair, Convocation and Alumni "Dinner	EFS
		pictures+ background commentary/ verbal oral text	<p>a plethora of quick Visuals presented along with the Urdu commentary e.g., graduates showing gold medals in the convocation, Microsoft building, newspaper cuttings and Pictures of successful graduates along with their achievements. There were photos of a young graduate, Mir Zafar Ali, who is a visual effects artist and has won 3 Oscar Awards.</p> <p>Another graduate, Imran Khan, took part in the discovery of gravitational waves. The pictures of him getting awards, solar system and gravitational force were presented. Clips of student studying in the library, Publication in Research journals were also included. The Urdu commentary along with that was: " Our pride is the determined studentsdue to their high academic and technical skills. Success in research have so far added 210 high quality essays. Of these, 78 are used as references to the best research works in the world under the Impact Factor"</p>	SS

		picture+ verbal oral text (oral interview)	“..... provides equal educational opportunities for poor and deserving students". An interview clip from Dr Amir Mohammed was inserted at this point as : " we try to make sure that any student who qualifies into our University through a competitive test is not refused education just because of the family's financial situation. So, we provide liberal financial assistance to the students whose families are such that they need assistance".	EFS
		pictures+ background commentary+ verbal oral text (oral interview)	Again, a number of visuals stream in along with Urdu commentary i.e. “..... not only sets scholarships for students but also issues interest-free loans to cover educational ".expenses An interview clip from Secretary General elaborated it as: "...There are close to 1000 low-income children who cannot afford to whom we give financial aid of close to 10 crores". The Urdu commentary continued: " --- was not created for financial gain but to meet the social, material and scientific needs of Pakistan. The funds of our foundation do not come from any foreign institution".	EFS
		pictures+ background commentary/ verbal oral text (oral interview)	Once again, the interview from the founding rector and chairman Board of governors elaborated: "this university is a private sector university. We fend for our selves financially. We raise our funds mostly through student fee".	EFS
		background commentary/ verbal oral text	The Urdu commentary continued: "Transparency in all areas". “....Creating the best human beings who have best character".	EFS

		pictures+ verbal oral text (oral interview)	A female student, Esha Tahir, commented: "something that's really good about FAST is that it makes you have a general out look at life differently than just focusing on your academic purposes. So, it's going to teach you how to be professional, how to be a better human being. That's something that really doesn't come with other institutions".	EFS
		background commentary/ verbal oral text	Urdu commentary continued after it as:" to produce top scientists and experts, but also to create the best people with balanced roles so that Pakistan can serve the world".	EFS
		background commentary/ verbal oral text	Along with the commentary and interview clips, visuals continued to be displayed on screen. There are usual scenes of students coming in and out of the university building, amount of scholarships and financial aid as text on the screen. Green area around university, beautiful fountains within the building, notice boards, sports activities etc.	G
		picture+ caption, logo, color, language (Arabic), verbal written text	reappearance of logo of the university. The logo of the university is round in shape and blue in color. After the name of University in English language and its acronym in the centre with green colored crescent and star, two verses of Holy Quran about the gift of knowledge given to mankind with white font in the outer circle of the logo.	G

Sr.#	Link	Mode	Signifiers	theme
	Home Page does not have official videos. only a video about University as the documentary made by a student.	picture+ captions	starts with the scene of early sunrise at dawn time with some background music. The first caption that rolled in was "2001". After it, a number of captions appeared one after another i.e. "the beginning of a history and identity, excellence, achievements and revolutions".	Overall campus sustainability
		pictures+ captions	Then, a picture of two men one by one. After it, the next stream of captions appeared as: "with 4 departments and less than hundred students". A picture of a huge building surrounded with trees and Pakistani flag on the top of it.	G
		picture+ captions	Then, captions with sun rising in the clouds at the background came one after the other as: " the biggest and the legendary, with 7 departments and more than 3000 students, 53 programs and two research journals, second position in KP and ninth in Pakistan private universities, HEC ranking 2015, 58 PhD doctors, 192 MPhil graduates, recognized by: Higher Education Commission/ Mission, chartered by: Government of KP, Accredited by: NBEAC (business council), NCEAC (computing Council), NACTE (teaching Council), PEC (engineering Council), PBC (bar council),".	SS
		picture+ background	famous sites of the city captioned as, "Peshawar" shown one after the other. The same building shown initially reappeared with students moving in	G, SS

		commentary/ verbal oral text	<p>and out of it and the staff busy in administrative activities. A member of the staff gave information about the origin and naming of university in Urdu language as for the purpose of revival and renaissance of Muslims and their educational centers :</p> <p>“...., named it after the University of Cordoba. It was a huge educational center where people from Europe and all over the world used to come to get education. Keeping in view the current decline of Muslims all over the world.....”.</p>	Purpose in commentary for ‘SS’
		picture+ verbal oral text (oral interview)	<p>Outside view of the buildings shown. A faculty member, Syed Anwaar Hussain (Assistant Professor CS/senior coordinator academics) told:"... Peshawar campus. We have 5 different departments in this campus where we are offering 53 programs".</p>	P
		picture+ verbal oral text (oral interview)	<p>Another teacher while in the classroom, Dr Kashif Amin (Assistant professor, Finance) commented:</p> <p>"Students who do not care how much you know until they know how much you care and I can safely recommend Qurtuba for making your dream come true".</p> <p>A staff member again commented:</p> <p>"---- is under a Vision/ Missionary spirit. --- made great ----so far graduated about 58 PhDs, 192 M.Phil graduates and ---- all our young graduates have had their place in the best place."</p>	P, EFS

		picture+ verbal oral text (oral interview)	Then, a library scene displayed followed by an interview clip from a faculty member, Imran Khan (Assistant professor in management science department/ co-ordinator Management Sciences) told: "Qurtuba University is not the name of an educational institution only. That is the name of quality education where the graduates acquire academic and moral excellence".	EFS
		picture+ verbal oral text (oral interview)	A lecturer in English and linguistics department, Salma Ali Khan, commented: "enter to learn, leave to serve". Another lecturer in management sciences,/coordinator engineering, Jabran Ahmed, said:"Qurtuba University has defined new possibilities for the students". Another lecturer in finance/ coordinator (MPhil, PhD) Amirullah said: "Qurtuba University can teach you the skills and g gives you the opportunity". A lecturer of computer sciences department, Zartashia said:" Qurtuba is a place where dreams come true". Kausar Hayat, assistant professor marketing said : " Qurtuba University is educating students by keeping in view the market relevance".	EFS
		picture+ verbal oral text (oral interview)	Sajid Rahman, assistant professor CS, coordinator Sciences and IT coordinator spoke: "Qurtuba University provides a platform where students do not acquire the knowledge of theories also the implementation of these theories".	SS

		picture+ verbal oral text (oral interview)	Then, video clips of celebration of Independence Day of Pakistan students were participating in tableau and songs, Wisal Ahmed lecturer in entrepreneurship/ event coordinator said:" one of the Chinese proverb states that teach me and I will forget, show me and I might remember but if you involve me, then I will never forget"-	EFS
		pictures+ background commentary/ verbal oral text (oral interview)	the background commentary continues along with the visual of job fair, students helping the children, sports group photo, Independence Day group photo, students getting the prizes	-EFS
		pictures, photo	students working in lab group photo-	SS
		background commentary/ verbal oral text	the background commentary: "Qurtuba University has always encouraged and motivated students to participate in co-curricular activities and it is very much important for creativity of the students".	EFS
		pictures+ background commentary/ verbal oral text	Different students telling different qualities of university as "Qurtuba University is great, phenomenal, excellent, exceptional, amazing, awesome, beautiful". In the end, some more pictures of the officials in meetings, MOUs, awarding shields, famous poets visiting the university, famous days celebrated etc. rolled in quickly on the screens.	EFS
		Picture	the scene of clouds on the sky	G

VII- Observation Table of Word Frames in Verbal Text Of videos

Sr. #	word	Total frequency	Sector	University: frequency	Frequency in sector	Theme related
1.	Faculty	19	Public :03	i. NUML: 10 ii. NUST: 01 iii. AU:07	18	EFS
			Private:01	i. FAST-NUCES:01	01	

2.	Campus/ campuses	18	Public: 03	i. NUML:01 ii. NUST:02 iii. AU:07	10	Overall CSD
			Private: 05	i. IU: 01 ii. QUSIT :02 iii. HU:01 iv. UOL:01 v. FAST-NUCES:03	08	
3.	Research	17	Public: 02	i. NUST:01 ii. AU: 06	07	SS
			Private:03	i. IU :01 ii. QUSIT: 01 iii. FAST-NUCES :08	10	
4.a)	Sciences	16	Public: 02	i. NUML: 04 ii. AU :07	11	SS
			Private:02	i. UOL: 03 FAST-NUCES: 02	05	
b)	Scientific	05	Public: 01	i. AU: 02	02	SS
			Private:01	i. FAST-NUCES :03	03	
5.a)	Language/s	15	Public: 02	NUML:13 ii. AU : 02	15	SS
b)	Linguistic	02	Public: 01	i. NUML :01	02	SS
			Private:01	i. FAST-NUCES: 01		
6.a)	Technology / tech/ technical/technolo gical	15	Public: 02	i. NUML:01 ii. AU:02	03	SS

			Private:04	i. QUSIT:02 ii. HU:01 iii. UOL :02 iv. FAST-NUCES :07	12	
b)	Computer/ s/ computing	09	Public:02	i. NUML:01 ii. AU: 04	05	SS
			Private:03	i. UOL :01 ii. QUSIT:01 iii. FAST-NUCES:02	04	
c)	Digital	03	Public: 01	i. AU: 01	01	SS
			Private:02	i. IU: 01 ii. UOL : 01	02	
7.	Lab/labs/ laboratories/ Laboratory	13	Public: 02	i. NUST: 01 ii. AU: 06	07	G
			Private:03	i. IU: 03 ii. UOL:02 iii. FAST: 01	06	
8.	Skills	10	Public: 02	i. NUML :01 ii. AU:04	05	EFS
			Private:02	i. QUSIT: 01 ii. FAST: 04	05	
9.	Environment	10	Public: 03	i. NUML: 01 ii. NUST:02 iii. AU:02	05	G
			Private:02	i. UOL:03 ii. FAST-NUCES:02	05	
10.	Management	9	Public: 02	i. NUML: 01 ii. AU: 05	06	EFS
			Private:03	i. HU: 01 ii. UOL: 01 iii. FAST-NUCES: 01	03	

11.	Urdu	09	Private:02	i. QUSIT: 01 ii. FAST:08	09	SS
12.	Development/ develop/ developed	09	Public: 01	i. AU : 05	05	SS
			Private:01	i. FAST-NUCES : 04	04	
13. a)	Social	07	Public: 02	i. NUML : 02 ii. AU: 04	06	EFS
			Private:01	i. FAST-NUCES: 01	01	
b)	Society	04	Public: 02	i. NUST:01 ii. AU :02	03	EFS
			Private:01	i. FAST :01	01	
14.	Library/ies	08	Public: 03	i. NUML:01 ii. COMSATS: 01 iii. AU :02	04	G
			Private:04	i. IU : 01 ii. HU:01 iii. UOL :01 iv. FAST-NUCES: 01	04	G
15.	Degree /s	07	Public: 02	i. NUML:01 ii. AU:04	05	EFS
			Private:01	i. FAST-NUCES:02	02	
16. a)	Art / arts	06	Public: 01	i. NUST: 02	02	SS
			Private: 02	i. IU: 02 ii. FAST-NUCES:02	04	
b)	Artistic	01	Private: 01	i. FAST-NUCES: 01	01	SS
17.	Knowledge	06	Public: 02	NUML : 01 ii. AU : 02	03	SS
			Private: 02	QUSIT : 01 FAST-NUCES : 02	03	
18.	International	06	Public: 03	i. NUML:03 ii. NUST : 01 iii. AU : 02	06	SS

19.	Cafeteria	05	Public:03	i. COMSATS: 01 ii. NUST : 01 iii. AU :01	03	G
			Private:02	i. UOL :01 ii. FAST-NUCES :01	02	
20.	English	04	Public: 02	i. NUML:02 ii. AU :02	04	SS
21.	Curricular	04	Public: 01	i. AU:01	01	EFS
			Private:02	i. QUSIT :01 ii. FAST-NUCES : 02	03	
22.	Service/ services	04	Public: 02	i. NUST: 02 ii. AU : 02	04	EFS
23.	Training/ trained	04	Public: 01	i. NUML: 01	01	EFS
			Private:01	i. FAST- NUCES:03	03	
24.	Cultural	03	Public:03	i. NUML: 01 ii. NUST: 01 iii. AU :01	03	EFS
25.	Green	03	Public: 03	i. NUML:01 ii. COMSATS : 01 iii. AU : 01	03	G
26.	Citizen	03	Public: 02	i. NUML: 01 ii. AU: 01	02	EFS
			Private:01	i. FAST-NUCES :01	01	
27.	Life / Lifelong	03	Public: 01	i. AU: 02	02	Over all CSD
			Private:01	i. FAST- NUCES: 01	01	
28.	Auditoriums	03	Public: 01	i. NUML : 01	01	G
			Private:02	i. IU:01 ii. FAST-NUCES: 01	02	
29.	Ranked / ranking	02	Private: 02	i. UOL: 01 ii. QUSIT :01	02	EFS

30.	Chinese	02	Public: 01	i. NUML : 01	01	SS
			Private: 01	i. QUSIT: 01	01	
31.	Islamic	02	Public: 02	i. NUML :01 ii. AU: 01	02	SS
32.	Health	02	Private:01	i. UOL: 02	02	G
33.	Gym	02	Private: 01	i. IU :02	02	G
34.	Innovation	02	Public: 02	i. NUST :01 ii. AU :01	02	SS
35.	Seminars	02	Public: 01	i. AU: 01	01	EFS
			Private: 01	i. FAST: 01	01	
36.	Bus/ buses	02	Public: 01	i. NUML: 01	01	G
			Private: 01	i. UOL : 01	01	
37.	Class / classroom	02	Public:01	i. NUST: 01	01	G
			Private:01	i. IU :01	01	
38.	Sky /skies	02	Public: 02	i. COMSATS :01 ii. AU : 01	02	G
39.	Buildings	01	Private:01	i.FAST-NUCES : 01	01	G
40.	Music	01	Private :01	i. IU: 01	01	G
41.	Civil	01	Private:01	i. FAST-NUCES: 01	01	EFS
42.	Blue	01	Public:01	i. COMSATS: 01	01	G
43.	Convocation	01	Private: 01	i. FAST-NUCES :01	01	EFS
44.	Earth	01	Public:01	i. AU :01	01	G

45.	Literary	01	Public: 01	i. NUST: 01	01	SS
46.	Lush	01	Public: 01	i. AU: 01	01	G
47.	Mosque	01	Public: 01	i. COMSATS : 01	01	G
48.	Mountain	01	Public: 01	i. AU: 01	01	G
49.	Planting	01	Private:01	i. HU:01	01	G
50.	Responsibility	01	Public: 01	i. AU: 01	01	EFS
51.	Transport	01	Public: 01	i. AU: 01	01	G
52.	Workshops	01	Public: 01	i. AU: 01	01	EFS

VIII- Visual Analysis Rubric by Kress & van Leeuwen

	Visual feature	Explanation	Data
1.	Descriptors	A basic description of the visual elements such as: actors and carriers; angle; colors; graphics; font; page design; perspective; settings; spatial relationships.	
2.	Actor	The active participant(s) in an action process is the participant(s) from which the vector emanates or which is fused with the vector.	
3.	Goal	The passive participant in an action process is the participant at which the vector is directed.	

4.	Interactors	The participants in a transactional action process where the vector could be said to emanate from, and be directed at, both participants.	
5.	Reactor	The active participant in a reaction process is the participant whose look creates the eye line.	
6.	Transactional reaction	An eye line vector connects two participants, a Reactor and Phenomenon.	
7.	Non-transactional reaction	An eye line vector emanates from a participant, the Reactor, but does not point at another participant.	
8.	Setting	The setting of a process is recognizable because the participants in the foreground overlap and hence partially obscure it; (e.g. soft focus, over/under color saturation) and overall darkness or lightness between foreground and background.	
9.	Means	A process used to created image (e.g. photograph, graphic, logo).	
10.	Symbolic Attributes	Symbolic Attributes are made salient in the representation in one way or another. For instance, by	

		being placed in the foreground, through exaggerated size, through being especially well lit, through being represented in fine detail or sharp focus, or through their conspicuous color or tone.	
11.	Symbolic Suggestive	Symbolic Suggestive depictions are not represented as a general essence rather than a specific instance. Visuals of this nature may use soft focus, blending of colors, outlines or silhouettes.	
12.	Sequencing of information.	Sequence sets up cause and effect. placement of images on a page (e.g. high, low).	

(Kress & van Leeuwen, Reading Images: The Grammar of Visual Design, 2006)

IX- Peer Review Letter

Dear Sir/ Madam:

The researcher intends to conduct a study entitled “Campus Sustainability Discourse: A Multimodal Analysis of Pakistani Higher Education Institutions’ Websites”. The present study aims at investigating the ways and modes in which different types of text communicate the selected campus sustainability themes in the visual and verbal form on the websites of Pakistani universities.

To provide face or content validity of the sample, the website content and sample analysis is presented to the members of a committee of teachers at NUML, Islamabad to give their comments and suggestions on the suitability of the contents, coding process and data tabulation according to

the research questions and objectives. You are kindly requested to review them in order to illuminate the researcher and help in accomplishing the aims especially in terms of relevant data and themes for the topic.

Regards,

Noureen Naz

PhD scholar (English Linguistics)

Faculty of Arts and Humanities

NUML, Islamabad.

X- Relevance of SDGs with the Themes of Campus Sustainability Discourse

Sr#	SDG goals	Relevant Campus Sustainability Theme
Goal 1	No Poverty	EFS
Goal 2	Zero Hunger	EFS
Goal 3	Good Health and Well-being	Greening
Goal 4	Quality Education	SS
Goal 5	Gender Equality	EFS
Goal 6	Clean Water and Sanitation	Greening
Goal 7	Affordable and Clean Energy	Greening
Goal 8	Decent Work and Economic Growth	EFS/ SS
Goal 9	Industry, Innovation and Infrastructure	SS
Goal 10	Reduced Inequality	EFS
Goal 11	Sustainable Cities and Communities	Greening
Goal 12	Responsible consumption and production	Greening
Goal 13	Climate Action	Greening
Goal 14	Life Below Water	Greening
Goal 15	Life on Land	Greening
Goal 16	Peace and Justice	EFS

Goal 17	Partnerships to achieve the Goal	EFS/ SS

Source: *United Nations Website*

Javeed, A., Khan, M. Y., Rehman, M., & Khurshid, A. (2022). Tracking sustainable development goals—a case study of Pakistan. *Journal of Cultural Heritage Management and Sustainable Development*, 12(4), 478-496. P.2-3

XI- Sample Selection Criteria

- **COMSATS**- this university was established in 1998, as a project of the Commission on Science and Technology for Sustainable Development in the South (COMSATS), which is an inter-governmental organization with 21 member states in three continents; Asia, Africa and Latin America. The Talloires Declaration is an environmental, social responsibility and education for sustainability agreement done on voluntary basis by the higher education institutions
- **Iqra University**- chartered by the Government of Sindh via ordinance VI of 2000 and recognized by the Higher Education Commission, IU has been ranked Number-1 by Higher Education Commission in Business Education Category (2015). It has been rated as the best private sector university in Sindh and a Six Star Institution.as per CEIC evaluation. It has been placed in “W4” category, the top category, by HEC <https://iqra.edu.pk/isl/why-choose-iqra/>
- **Karakoram International University**-
Its training and education focus primarily on mountain environment and resource development with contextual relevance and field based experience”.
Greenmetric ranking
- **Qurtuba University of Science and Information Technology**
One of the pioneer private sector Universities of Khyber PakhtunKhwa, Pakistan. Starting its journey since 30th August, 2001, the university’s aim is to bring peace & prosperity to the country and to revive the memories of the city of Cordova, known as “Madinat-Ul-Ilm”

- **SZABIST** is a fully Chartered Institute established through Sindh Assembly (Sindh Act No. XI of 1995), having campuses in Karachi, Islamabad, Hyderabad, Larkana and Dubai (UAE). BusinessWeek, the leading international business magazine, has listed SZABIST among the best business schools of the world for six years (2001-2008). One of the top 15 business schools from South Asia and it is also ranked among the best Science and Technology and MBA schools in Asia by the CNN-Time publication, Asiaweek. SZABIST is also listed in the CNN Executive Education Schools, 2009.

Source: [Overall rankings](#), [Setting and Infrastructure rankings](#), [Energy and Climate Change rankings](#), [Waste rankings](#), [Water rankings](#), [Transportation rankings](#), [Education rankings](#) and [Campus Setting rankings](#), UI GreenMetric as of December 2015.

Ranking	University	Overall ranking	Setting & Infrastructure	Energy & climate change	Waste	Water	Transportation	Education	Campus setting
1	University of Agriculture (Islamabad)	128	92	165	322	148	56	34	Urban: 57
2	The Islamia University of Science and Technology	220	253	327	291	101	201	95	Urban: 110
3	University of Lahore	270	154	270	356	394	92	204	Urban: 138
4	University of Karachi	355	60	339	397	291	262	336	Urban: 189
5	International Islamic University	392	293	382	406	282	287	226	City Center/High Rise: 53

UOL, IUI

Public Sector Videos :

Sr.#	University's name	Video title	Location on website
i.	Air University	Air University Islamabad Documentary 2018 HD	Home page (Air University Islamabad Documentary 2018 HD, 2018)
ii.	COMSATS Institute of Information Technology	Comsats virtual tour video	Home page (Comsats virtual tour video, 2018)
iii.	National University of Modern Languages	Life at NUML	home page (Life at NUML, 2018)
iv.	NUST	No video officially uploaded after that time. NUST video made by student	videos section on home page

Private Sector Videos:

Sr.#	University's name	Video title	Location on website
i.	Iqra university (Karachi, Islamabad, Quetta)	Iqra university (2 minutes tour of IU)	Home page (Iqra university (2 minutes tour of IU) , 2018)
ii.	Qurtaba University, Peshawar, KPK	Qurtuba official	(Qurtuba official , 2018)
iii.	Hamdard university	Life at HU – Hamdard University	Home page (Life at HU – Hamdard University , 2018)
iv.	FAST-NUCES	FAST National University	Home page (FAST National University, 2018)
v.	University of Lahore	UOL Islamabad campus video	Home page (University of Lahore , 2018)

HEC abandons process of ranking universities

By RIAZ UL HAQ

Published: April 8, 2018

The Higher Education Commission (HEC) has abandoned the exercise of ranking universities due to lack of accurate data, professional capacity and incompatibility of the existing method 'with ground realities'.

THE EXPRESS TRIBUNE PAKISTAN

<https://tribune.com.pk/story/1680268/1-hec-abandons-process-ranking-universities>