Sensor webs consisting of nodes with limited battery power and wireless communications are deployed to collect useful information from the field. Efficiently Information is gathered in the sensor network is very critical. That is way we are going to present an efficient way to gather information in such scenario. Many researcher present a work in the field of sensor network. Every node in sensor network can sent data packet to the home station. If the data is sent to the home station by node are sensed data then it should deplete its power very quickly and efficiently.

Many protocol work as a cluster based on some input information. LEACH protocol is one of them that present a solution of above problem, where clusters are formed to fuse. LEACH protocol do this before transmit data to the base station. LEACH achieves the desired solution with the help of 8 important modification. And also compared to the direct transmission, measured the situation when nodes are alive or dead. In this paper we are going to propose a modified protocol names as Group Based Power Efficient Gathering Protocol in WSN.

The main working of the proposed protocol is that it work in the form of group. A group based protocol is an improvement over LEACH protocol. In the result section the performance of LEACH and Group Based Power Efficient Gathering Protocol in WSN are displayed. In Our protocol each node communicate with the cluster head. Cluster head are responsible to send data to the base station, thus reducing the amount of energy spent per round. Simulation results show that our protocol performs better than LEACH.