**Developer report**

**Title: A NODE OVERHAUL SCHEME FOR ENERGY EFFICIENT CLUSTERING IN WIRELESS SENSOR NETWORKS**

**Title ID:** Here we need to mention Title ID of the Project.

**Objective of the Project**: The USC-LEACH is the proposed protocol enhances and improves the network life time, generate clusters of uniform size.

**Development Procedure:**

We suggest a new algorithm for extending the network's lifetime all the nodes are assigned with a cluster head as it happens in case of LEACH protocol, but there will be a few unclustered nodes because of threshold Thcluster. The idea of the cluster refurbish phase of the proposed solution is to allow extra nodes (MNs—Thcluster) of large clusters to join other clusters according to the second best choice of cluster heads, proposed solution has uniform size clusters (USCs); thus, the approach is named as LEACH-USC), along with reduced intracluster communication.

**Execution Procedure:**

Cluster head selection depends on the probabilistic approach as also performed by LEACH. In the initial cluster formation operation, all the nodes join the nearest cluster head. As a consequence of probabilistic cluster head selection and assigning the nodes to the nearest clusters head, clusters of different sizes exist after the completion of initial cluster formation operation like the LEACH approach.

In the cluster refurbish operation of the proposed approach, clusters will be reorganized to obtain USCs with the goal of sending the nodes from the a large clusters to the other clusters according to the second best cluster head. First, the largest cluster among all clusters has been identified, and then, the distance between the MNs of the cluster and the rest of the cluster heads are calculated. This is done in order to find second best choice of cluster heads. The k-nodes [MN—Thcluster], which have least communication distance to other cluster heads, will be assigned to respective second best cluster heads. Consequently, nodes near the cluster boundary will be assigned to other cluster heads. Algorithm 1 explains the working of the cluster refurbish process