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## An Efficient Tree-based Self-Organizing Protocol for Internet of Things

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### MODULE 1:

Base file for creation of nodes and transfer of packets.

**IMPLEMENTATION-** TCL Script using normal AODV protocol.

### MODULE 2:

Topology of wireless sensor networks with more no of nodes which is formed as clusters and transmission of packets between the nodes is done to the base station[BS] which is routed using NORMAL LEACH or AODV PROTOCOL , parameters such as end to end delay, throughput, energy spent, packet delivery ratio is calculated and the output is shown using graphs.

**IMPLEMENTATION-** TCL Script using LEACH or AODV protocol and awk files execution for graphs.

### MODULE 3:

Topology of wireless sensor networks with more no of nodes which is formed as clusters and transmission of packets between the nodes is done to the base station[BS] which is routed using PROPOSED ETSP PROTOCOL [which is developed as a protocol in C++ and integrated in tcl script as a ns2 package] with EFFICIENT TREE BASED SELF ORGANIZING PROTOCOL and the following algorithms given below,

1. Select the best sink node
2. Non-network node requests to join in network
3. Check energy consumption of sink node
4. Reorganizing the hot area
5. Network for the child nodes

to decrease energy consumption , parameters such as end to end delay ,throughput ,energy spent, packet delivery ratio is calculated and the output is shown using graphs.

**IMPLEMENTATION--** TCL script using ETSP protocol and awk files execution for graphs

### MODULE 4:

comparison between NORMAL AND PROPOSED ETSP APPROACH is done on various parameters and output is shown using graphs.

**IMPLEMENTATION--**Execution of graph with the values took by awk files execution in each module.