**Energy Efficient Communication in Wireless Sensor Networks**

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**Project Description:**

* The spanning tree of the provided graph has been constructed using prims algorithm. The input for the prim algorithm is provided through graph matrix. The constructed spanning tree is copied into a .txt file (topofile.txt).
* The details of the topology file are retrieved to send the details to the client through server. The topology file (topology.txt) with the details would be provided as input to all the nodes in the topology. This gets information of the temperature at each node.
* The sever has to request the minimum and maximum temperature to the neighboring nodes. The sink node disseminates the spanning tree details to all nodes in the topology.
* Each node should be implemented to identify the parent and child of the spanning tree. With that information, the parent has to respond to the sink node request. The dissemination of information is achieved through UDP connection.
* The retrieved temperature values from the nodes are displayed through console. The average of the temperature value is calculated using the minimum and maximum values from the neighbor nodes which should be the parent of the leaf nodes.
* The collected temperature information is forwarded to the sink node from the parent node. This completes the energy efficient communication in wireless sensor networks.