

ABSTRACT

Wireless Sensor Network (WSN) is a concept of network utilization in a large scope. Wireless Sensor Networks are needed for many purposes such as monitoring a network, measuring network connectivity and so on. On the Wireless Sensor Network network has a unique characteristic that is able to connect one sensor to another sensor by forming a node or node. But in its use Wireless Sensor Networks often have limitations in storage space and energy used. An appropriate network protocol simulation mechanism is needed to streamline the energy used in each sensor node to maximize performance between sensor nodes. In the Wireless Sensor Network system there is a Cluster Head (CH) that functions as the main sensor in this network. Cluster Head has the duty to collect data from sensors around the cup, then it will be forwarded to the Base Station. One of the Cluster Head selection methods used is the Dynamic Cluster Head Selection Method (DCHSM) which is a Cluster Head selection method chosen based on probability. The DCHSM grouping method is assisted by a Voronoi diagram aimed at grouping the strategic points of the Cluster Head. The advantage of using the DCHSM method is the notion of CH rotations that are formed sequentially to maintain data traffic between nodes, and save energy used.

Keywords: *Wireless Sensor Network, Dynamic Cluster Head Selection Method, Voronoi Diagram*