Abstract

Wirelsess sensor network is a technology that can use in many major for many needs of human being. Now days this technology is used in military, academic, agricultural, medical, etc. This network is consist of many nodes that self-configure and every nodes has a sensor section that can capture some reaction which is happening near of this sensor nodes. There are some different between konvensional network e.g network in a PC or internet. From that many different from other network architecture, this network has limited in resources e.g. limited memory, limited processor specification, and limited energy are used in. Node in this network generally use battery for energy source. For optimization, this aspect is necessary to be consider for designing architechture in WSN. If the node have a long life in the network, surely the network can work well and the informations are delivered well. Hence many researches find some way for prolong the node lifetime. Some studies also focus for designing routing protocol that based on energy threshold. In this study we can annalize the performance of clustering hierarichal protocol for wireless sensor network that can prolong the network life time. Our study will compare protocol sHEED and HEED above the IEEE 802.15.4 standart.The protocol sHEED and HEED ara focused on choosing the cluster head in the netwoek. Then we analyze the energy consumed for the network and clustering section for this protocol. With matlab tools we implement the algorithm for choosing cluster head and modeling some network and enegy consumption. In our work we had prove that sHEED can prolong the network life time above the HEED and power consumption for the sHEED is less than HEED.

Key words : Wireless Sensor Network, sHEED, HEED, Energy, Power Consumption