Energy in wireless sensor network is a recent topic of research. To organize the network such a way that should minimize energy dissipation and maximize network stability period and network lifetime. In this paper, a distributed, randomized Heterogeneity Aware Clustering Algorithm (HACA) to organize the sensors in a wireless sensor network into clusters has been proposed. HACA is very simple to implement in the sensor nodes. This is a dynamic protocol, it will work automatically over no prior distribution of the levels of energy in the nodes is to conserve. HACA algorithm also generate hierarchy of cluster heads and observe that the energy savings increase with the number of levels in the hierarchy. Results in stochastic geometry are used to derive solutions for the values of the parameters of proposed algorithm that minimize the total energy spent in the network when all sensors report data through the
cluster heads to the processing center.

References


Index Terms

Computer Science

Wireless
Keywords

HACA Algorithm Asystem design simulation by using mat lab.