Abstract

Data gathering is a common but critical operation in many applications of wireless sensor networks. Innovative techniques that improve energy efficiency to prolong the network lifetime are highly required. Clustering is an effective topology control approach in wireless sensor networks, which can increase network scalability and lifetime. Clustering sensors into groups, so that sensors communicate information only to cluster heads and then the cluster heads communicate the aggregated information to the processing centre, may save energy. In this paper, we simulate a distributed, randomized clustering algorithm to organize the sensors in a wireless sensor network into clusters in MATLAB. EEHCA [1] (an Energy Efficient Hierarchical
Clustering Algorithm for Wireless Sensor Networks) achieves a good performance in terms of lifetime by minimizing energy consumption for communication and balancing the energy loads among all the nodes.

References


Index Terms

Computer Science Wireless Information

Keywords

Clusters EECHA Cluster Heads