Abstract

Wireless sensor network are produced without using a fixed network infrastructure with the help of small sensor nodes communicating over wireless links. Wireless sensor network (WSN) is a group of three kinds of nodes: sensor node, and sink node, etc. Energy sources and communication is performed via wireless medium and every node has a limited processing capability. In this paper, Genetic Algorithm (GA) and MR-PSO is proposed to optimize sensor nodes’ energy consumption. The most important is the clustering technique as an efficient way for reducing consumption of energy of a sensor node as well as the transmission cost. Multi-objective algorithm is also used which makes an optimal number of sensor-clusters
with cluster-heads and reduces the transmission cost. The components are also used and the average fitness of the system is evaluated.

References

- Wei Qu, Mengmeng Yang, "An Energy-efficient Routing Control Strategy Based on Genetic Optimization"; IEEE, June 29 - July 4 2014.

Index Terms

Computer Science

Artificial Intelligence
Keywords
Wireless Sensor Networks  Clustering  Cluster-head  Energy Consumption  Genetic Algorithm (ga)
Mr-psd