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Abstract

Wireless sensor networks consist of small battery powered. Devices with limited energy resources optimization of energy consumption is one of the most important challenges in WSNs due to the limited energy capacity of the network nodes. Several studies have been done in order to design energy efficient routing mechanism to increase the network lifetime. Clustering is one of the best used methods. This work proposes a centralized routing protocol used a CH selection by considering the remaining energy of sensor node in CH selecting process. Simulation results show that the proposed scheme reduces the energy consumption and prolong the network life-time of network compared to the well-known clustering algorithms LEACH.

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Index Terms

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Keywords

Wireless Sensor Networks (WSNs); Energy consumption; Life-time; Clustering; CH; LEACH