Abstract

The wireless sensor networks consist of hundreds of inexpensive wireless nodes, each with some computational power and sensing capability, operational power and sensing capability, operating in an unattended mode. Clustering is an efficient approach to capitalize the energy of energy constraint sensor nodes in wireless sensor networks (WSNs). Low Energy Adaptive Clustering Hierarchy (LEACH) is a major breakthrough for clustering technique by forming and
rotating cluster head among nodes randomly. In present work the cluster heads are formed, number of cluster heads was fixed to 8 and LEACH scheme was simulated in NS-2 to study the performance in terms of network lifetime and energy consumption rate for each cluster head. The most significant performance was found in the cluster head having optimum load balancing factor and moderate distance from base station.

References


- MIT iAMPS project ns2 code extensions. Available online:http://www.mtl.mit.edu/research/icsystems/uamps/research/leach/leach_code.shtml

Index Terms

Computer Science

Wireless Communication

Keywords

Leach Protocol Wireless Sensor Network Energy Efficiency Cluster Algorithm