Abstract

Wireless Sensor Networks (WSN) is a set of sensor nodes that collects the information from environment and sends to the base station (Header node or Central Node). Wireless range of applications related to national security, surveillance, home and office application[1], habitat monitoring[2,3], health application[4,5], environment forecasting[6] and military etc. One important class of WSNs is wireless Ad-Hoc sensor networks, characterized by an Ad-Hoc or random sensor deployment method, where the sensor location is not known a priori. This applies when individual sensor placement is infeasible, such as in battlefields or in disaster areas. Generally, more sensors are deployed than required (As compared with the optimal placement) to perform the proposed task; this compensates for the lack of exact positioning and improves fault tolerance. The characteristics of a sensor network include limited resources, large and dense networks, and a dynamic topology. An important issue in sensor networks is power scarcity, driven in part by battery size and weight limitations. Mechanisms that optimize sensor energy utilization have a great impact on prolonging the network lifetime. In this paper different energy minimization techniques have been compared that are used in wireless sensor network.
Comparison of different Energy Minimization Techniques in Wireless Sensor Network

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Index Terms

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**Keywords**

Wireless sensor network  Energy efficient target coverage  Energy minimization  Lifetime of WSN  Network architecture  Cover set  Coverage  Connectivity