Abstract

Wireless Sensor Networks is a collection of various densely deployed sensor nodes which is implemented in a variety of applications such as Home, Medical, Military, Security Surveillance and Combat Field Reconnaissance etc. An event-driven wireless sensor networks (EWSNs) is a type of wireless sensor network in which the desired information is disseminated to the sink more reliably. Another important function of EWSN is the accurate event detection so that the probability of false alarm becomes low. Likewise WSN, sensor nodes in EWSNs are also energy constrained thereby designing energy-efficient algorithm becomes an important factor for extending the life span of the event-driven wireless sensor network. In EWSNs, clustering is used for efficient use of constrained resources for energy saving. This paper provides a novel Network Reliable Routing Protocol for EWSNs. This protocol provides better data aggregation by using clustering at initial and reliable data dissemination by using multipath routing method which makes the network fault tolerant. Network Reliable Routing Protocol setup a routing path from source to sink. It also minimizes unnecessary activation of nodes during data dissemination process. Performance results show that Network Reliable Routing Protocol handles more events than already exists ESDC and also achieves the energy efficiency
objective.

References

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Index Terms

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Keywords

Wireless sensor networks Clustering Cluster head (CH) Event-Driven wireless sensor networks and Multipath routing.