Abstract

Wireless Sensor Networks (WSNs) have the potential of significantly enhancing our ability to monitor and interact with our physical environment. Wireless Sensor networks (WSN) are inherently fault-prone and the reliability of WSN is affected by faults that may occur due to various reasons such as malfunctioning hardware and software glitches, dislocation or environmental reasons. It is necessary for the WSN to be able to detect faults early and initiate appropriate recovery action to maintain the quality of service (QoS) of the wireless sensor networks. In this paper, we address these challenges by surveying existing fault detection and fault management approaches in WSN's. It is observed that the main challenge for
management of WSN is to provide efficient and reliable fault tolerance (FT) mechanism while conserving the limited resources of the network.

References

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Index Terms

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Keywords

Wireless Sensor Network  Fault Detection  Fault Management  Fault Tolerance