Abstract

Researchers in wireless Micro-sensor networks (M-WSN) have proposed various protocols for energy conservations. Each protocol is aimed to optimize power utilization in wireless sensor networks. The different protocol approaches optimize power consumption either considering their application areas or network topologies. This paper studies various energy-saving protocols for micro sensor networks and presents their brief classifications. An M-WSN is a group of hundreds or thousands of small energy-limited sensors that are densely deployed in a large geographical region. These micro sensors in sensor network are autonomous devices responsible for forwarding locally collected data to a central node called sink node by following multi-hop wireless paths. The sink node performs data fusion to form a single meaningful result. The micro sensors work by utilizing limited battery-power, the considerable part is to use this power for a maximum time. Although recent developments in electronics has enabled the
development of low-cost & low-power sensors networks, still there is a challenging job of energy conservation optimization within the wireless sensor networks (WSNs).

Reference

Review on Protocol based Approaches to Extend Lifetime of Wireless Sensor Networks


Index Terms

Computer Science

Wireless

Key words

sensor network
duty cycle
protocol
data
aggregation
fusion