

DUTY CYCLE APPROACH ON ENERGY CONSERVATION IN WIRELESS SENSOR NETWORKS-A REVIEW

BINU G S AND K PAULOSE JACOB

Abstract

Wireless sensor networks are battery operated computing and sensing devices. Advancements in wireless communication and electronics have led to the rapid deployment of wireless sensor networks. The sensor nodes will be deployed in an ad hoc fashion with individual nodes remaining inactive for large periods of time but suddenly becoming active on event detection. Energy management is a major issue in wireless sensor networks due to the limited battery prevailing in them. The energy limitation may lead to the depletion of the whole network. Longer network lifetime results when efficient energy management techniques are adopted. The current state of the art of sensor networks is captured in this article with special focus applied to energy conservation regarding the MAC protocols. It reviews the MAC protocols for wireless sensor networks discussing the various research issues. This article also intends to spark new interests and developments in this field as promising solutions to the energy problem

Keywords : Wireless sensor networks, MAC, energy, energy efficiency, duty cycle, power management.