Abstract

Improvement in communications and computation Technology has enabled the development of low-cost, low-power, small-size, and multifunctional sensor nodes in a wireless sensor network. The radio transmission and reception consumes a lot of energy, one of the important issues in wireless sensor network is the inherent limited battery power within network sensor nodes. So that battery power is a very important parameter in the algorithm design to increase lifetime of sensor nodes in the network. To maximizing the lifetime of sensor nodes, it is more suitable to divide the energy dissipated throughout the wireless sensor network in order to maximize overall network performance. Much research has been done in recent years, investigating different aspects like, low power protocols, network establishments, routing protocol, and coverage problems of wireless sensor networks. There are various routing protocols like location-aided, multi-path, data-centric, mobility-based, QoS based, heterogeneity-based, hierarchical routing, hybrid routing, etc., in which optimal routing can be achieved in the context of energy. In this paper, we focus only on hierarchical routing protocol and various LEACH-Based hierarchal routing protocols like LEACH-C, M-LEACH, E-LEACH, V-LEACH etc.
Most of the research in energy efficient data gathering in data centric applications of wireless sensor networks is motivated by LEACH.

**References**

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