Hierarchical Clustering in Decentralized Lifetime Maximizing Tree for Data Delivery in Wireless Sensor Networks

Abstract

A wireless sensor network (WSNs) is a self configuring network which is an anthology of thousands of sensors having insufficient storage, battery life and computation capabilities that communicate via wireless fashion. Wireless sensor network have diverse application domain which includes habitat monitoring, surveillance etc. For data aggregation at single source antecedent to transmitting to any distant user, decentralized maximizing tree is created that preserves energy and maximizes lifetime of event sources. In this paper we propose a decentralized lifetime maximizing tree along with hierarchical clustering that will minimize the energy consumption, delay during data collection and reduce time complexity.

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**Index Terms**

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**Keywords**

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