

基于覆盖率的无线传感器网络LEACH协议研究及改进

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摘要:

无线传感器网络中如何对节点能量进行优化使用是无线传感器网络应用中的关键技术之一。本文对现有LEACH协议的分簇及覆盖率方面进行改进。主要根据邻居节点的数量,通过对簇头节点分布及簇内实际覆盖率的优化来提高整个网络寿命。由matlab仿真结果表明:LEACH协议与LEACH-C协议相比,LEACH-C协议不仅保证较高的覆盖率,并能有效延长网络生存时间。

关键词: 无线传感器网络, leach协议, 分簇, 覆盖率,

Research and improvement of LEACH in the Wireless Sensor Network based on the coverage rate

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Abstract:

In wireless sensor networks one of the key problems is how to make maximal use of energy. The purpose of this article is to improve the clustering and the cluster coverage on LEACH. According to the number of neighbor nodes, the paper through the optimization of cluster distribution and the coverage rate to prolong the length of the network lifetime. The Matlab simulation result shows that to compare with LEACH, LEACH-C algorithm not only provides high coverage rate, but also prolongs network lifetime to a large extent.

Keywords: WSN, leach, clustering algorithm, coverage rate

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