

基于位置和剩余能量的局部集中式LEACH算法研究

作者：马建乐, 杨军

单位：宁夏大学

基金项目：国家自然科学基金项目

摘要：

传统的LEACH协议采用分布式算法，未考虑节点能量，改进的LEACH-C采用集中式的选簇算法，对于大规模的网络不适合。针对这些问题，本文提出一种基于位置和剩余能量的局部集中式分簇算法LEACH-LC。由簇头对簇成员的能量、位置进行评估，采用模拟退火算法确定局部较优的分簇。OMNet++仿真结果表明，改进算法在网络生存期和节点能耗上优于LEACH算法。

关键词：LEACH协议；局部集中式；剩余能量；模拟退火；OMNET++

Local Centralized LEACH Algorithm Based on Location and Residual Energy

Author's Name:

Institution:

Abstract:

The traditional LEACH routing protocol adopts a distributed algorithm, and does not take node energy into consideration. The improved LEACH-C algorithm is a centralized algorithm which does not meet for large networks. To solve these problems, a local centralized cluster head selection algorithm LEACH-LC is proposed. Cluster head evaluates the energy, location of the members, and then determines the local optimum clusters. The OMNet++ simulation results show that improved algorithm extends network lifetime and reduces energy consumption of nodes in comparison with LEACH.

Keywords: LEACH; local centralized; residual energy; simulated annealing; OMNET++

投稿时间：2013-05-22

[查看pdf文件](#)