

基于权值的非均匀分簇路由算法

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摘要:

节点能量有限是无线传感器网络通信协议设计中的一个重要瓶颈, 因此, 在无线传感器网络中, 考虑网络节点能量有限, 提出一种基于权值机制的非均匀分簇路由算法, 该算法采用权值的局部竞选簇首策略, 簇首根据距离信息构建簇首传送数据, 最后簇首采用多跳的方式向基站传送数据。实验仿真结果表明, 本文提出的新算法能有效地降低和均衡网络生命周期。

关键词: 无线传感器网络; 权值; 非均匀分簇; 链式传输结构; 多跳

UCRA: An uneven cluster routing algorithm based Weight

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Abstract:

Note energy limitation is the crucial point in communication protocols of wireless sensor networks. It 's important to improve network energy consumption, proposed an uneven Cluster routing algorithm based on Weight. The new local cluster head is selected according to the weight with its own size according to the distance information. The data is transferred in chains from members to the head, and in dynamic way to the station. Simulation results show that this new algorithm effectively reduces network energy consumption, and can balance the impact of the "hot spots" and the network lifetime is prolonged obviously.

Keywords: wireless sensor networks; weight; uneven clustering; chain structure; multi-hop

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