无线传感器网络中基于拍卖博弈的数据包转发算法

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摘　要：

在无线传感器网络中，为了提高能量的利用率和增强数据包转发的可靠性，设计了PFAG（Packet Forwarding Algorithm Base
据包转发过程看作一种多阶段拍卖博弈过程，首先，网络中的节点根据拍卖博弈模型中的标价函数给出相应标价,然后基于双
源节点可选出最佳的转发节点，从而找出最优的包转发策略。仿真结果表明，PFAG算法可有效的降低和平衡网络能耗，具备
强的特点。

关键词：无线传感器网络；包转发；拍卖博弈；平衡能耗

Auction Game Based Packet Forwarding Algorithm in WSNs

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Abstract:

In the wireless sensor networks, in order to improve the energy utilization and strengthen the reliability of packet forwarding, we des
Forwarding Algorithm Based on Auction Game) in this paper. This algorithm treated the process of packet forwarding as a multistag
network give corresponding bid price on the basis of the bidding function, then basing on the principle of maximizing their own pay
an optimal relay node so as to find out an optimal packet forwarding strategy. Simulation results indicated that the PFAG algorithm
energy consumption, promote the quality and reliability of transmission, while having preferable adaptability on the network size.

Keywords: Wireless Sensor Network (WSN); Packet forwarding; Auction; Energy balanced

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