

无线传感器网络DV-hop定位改进算法

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摘要:

本文提出了一种改进的DV-Hop定位算法, 通过对DV-Hop算法的局部优化, 减小了定位计算量, 并使得改进的DV-Hop算法对不规则形状的节点分布网络具有更好的适应性, 克服了原算法只适用于各向同性网络的不足。仿真结果表明, 改进的DV-Hop算法减小了用于定位的通信开销, 提高了定位精度, 从而验证了改进的DV-Hop算法能够适用于节点不规则分布的异性网络。

关键词: 无线传感器网络; 节点定位; 定位算法; DV-hop算法改进;

An Improved DV-hop Location Algorithm for Wireless Sensor Networks

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Abstract:

In this paper, an improved DV-hop location algorithm for wireless sensor networks is described. By local optimization algorithm for DV-hop, the improved DV-hop location algorithm reduces data calculation and has good adaptability to irregular distributed nodes. The improved algorithm overcomes the deficiency of the traditional DV-hop algorithm. The simulation results indicate that improved DV-hop location algorithm decreases the communication overhead used for nodes location, improves the location accuracy and more suitable to anisotropy network.

Keywords: wireless sensor networks; node location; location algorithm; improved DV-hop location algorithm

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