

网络、通信、安全

事件驱动型传感器网络地址分配算法研究

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摘要 无线传感器网络中的地址分配是应用的前提, 但目前研究相对较少。分析现有的无线传感器网络地址分配协议, 提出了一种基于最小跳数的按需分配的地址分配算法, 在网络初始阶段构建最小跳数, 当节点监测到事件根据最小跳数建立与Sink节点的通信, 获取事件节点的通信地址。理论分析及仿真结果表明, 该算法降低了协议自身的通信开销, 满足了无线传感器网络中通信节点资源极其稀少和低功耗的需要。

关键词 [无线传感器网络](#) [事件驱动](#) [地址分配](#)

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Address allocation algorithm for event-based wireless sensor network

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Abstract

The research on the address allocation for wireless sensor network is seldom, particularly in the network based event-driven. The representative address allocation protocols are analyzed, and a minimum Hop-Count Address Allocation (HCAA) is proposed: During the boot up phase each node gets their minimum hop-count. When the node detects their interesting event, it can build the communication with sink node by the hop-count, and get its communication address. The analysis and simulation validate that the method reduce the overheads of the communication and meets the constraints of low energy consumption and limits processing power in wireless sensor network.

Key words [wireless sensor network](#) [event driven](#) [address allocation](#)

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