

RFID传感网络中密集阅读器防碰撞算法的研究

作者: 陈颖, 张福洪

单位: 杭州电子科技大学

基金项目:

摘要:

为了解决RFID传感网络中密集阅读器的信号的碰撞问题提出了概率功率控制防碰撞算法。该算法利用各阅读器的发射功率在同一时隙服从不同的概率分布, 从而减少相互之间的干扰, 获得最大的阅读范围。功率的概率分布采用 分布。仿真结果表明, RFID概率功率控制算法能有效地防止阅读器信息碰撞, 提高阅读器的读写范围。

关键词: RFID; 阅读器; 防碰撞; 概率功率控制算法

Study on Reader Anti-collision Algorithm in RFID Sensor Networks

Author's Name:

Institution:

Abstract:

In order to avoid signal collision in dense readers RFID sensor networks, an anti-collision algorithm called Probabilistic Power Control is proposed. The algorithm changed the reader transmitter power with a probability distribution at the same time slot, so that interference between readers reduced and all readers achieved the best read range. The probability distribution of power is . Simulation results show that the Probabilistic Power Control algorithm can effectively solve reader collision in dense reader network and enhance the scope of readers to read and write.

Keywords: RFID; reader; Anti-collision; Probabilistic Power Control algorithm

投稿时间: 2009-09-10

[查看pdf文件](#)