

Implement a RFID-based Indoor Location Sensing System Using Virtual Signal Mechanism

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Abstract

Abstract—A Virtual Signal Location System (VSLS) is developed to overcome some drawbacks of LANDMARC, a promising indoor-sensing system which implements RFID technology. The concept of VSLS is based on the additional virtual signal tags as well as the characteristics of the normal distribution of signal strength, analysis of sampling rate and equalization to decrease signal intensity error. Some comparisons were made with LANDMARC, VSLS can effectively increase the sampling quality of signal as well as the precision. In addition, the proposed mechanism also improves the tag deployment density along with the accurate enhancement.

Keyword : LANDMARC , RFID, Location Sensing, Virtual Signal, Signal strength