

Indoor Location of the RFID System with Pattern Matching Technology

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Abstract

Due to the Information Technology developed rapidly, the outdoor navigator product - GPS (Global Positioning System) is getting mature and more popular. However, GPS technology cannot apply in the indoor due to the constraints of indoors environment. On the other hand, the range of the RFID reader become longer as well as the capacity of taggetting larger, the RFID technology has various application in every single day, not only can be applied in identification, but also for positioning in indoor. There are some researchers presented positioning technique using RFID, however, their method needs to deploy lots of reference tags to obtain approximate location. This paper proposed an efficient indoor positioning method based on pattern matching technology. Compared with previous papers, the method proposed in this paper can improve the accuracy on indoor positioning as well as achieve high performance with minimal number of tags.

Keyword : RFID、Indoor Positioning、Pattern Matching Method、Middleware System