

# Maximizing Read Accuracy by Using Genetic Algorithms to Locate RFID Reader Antennas at the Portals

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## Abstract

In the past, researchers solved the problem of choosing the optimum locations for reader antennas in a RFID equipped portal by using an exhaustion approach. However, the drawbacks of the exhaustion approach are that it requires take a long time and that the performance is not acceptable by users. This research uses the GA approach to find the optimum solutions for the portal reader antennas placement problem. Some experiments were performed to validate the performance of the GA approach. The results showed that 60% of the results of the GA approach were in the optimum solution set of the exhaustion approach, and that the execution time of the GA approach is only 30% of that needed by the exhaustion approach.

Keyword : RFID, genetic algorithm, read accuracy