

Finding a Shorter Path in Wireless Sensor Networks



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Abstract

The objective of operational research is to find optimal solutions to economic problems using mathematical methods capable of being programmed by computer. Graph theory is a fundamental part of operations research. The objectives of our work is to study the problem of finding a shorter path by applying Dijkstra's algorithms in wireless sensor networks. In this work, we tried to shorten the path of transmitted data packets since their energy consumption is about 70% of the overall energy consumption of the network.

Keywords Wireless Sensor Networks, Dijkstra Algorithm, Energy Saving, Shortest Path.