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Improvement multiplicity of routs in directed diffusion by learning automata new approach in directed diffusion

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ABSTRACT

One of the important and challenging matters in sensor network is energy of life span of nodes in the network. Directed routing algorithm is one of propounded methods in sensor networks which are a data-oriented algorithm. This algorithm focuses on saving energy within life span of network nodes. One of problems of directed diffusion method is existence of multiple routes. Now, consider that some sinks from the same origin request the same data who's Data Volume is very much. Directed routing algorithm establishes one route toward targeted route for each query. The problem of this algorithm is multiplicity of routes for the same data. Therefore, if we can establish a route which has the most common feature with regards to nodes which forms the route, we have prevented wasting energy. In this paper, it is tried to remove problem of multiplicity of routes for the same data by learning automata. We named this algorithm RDDLA. RDDLA decrease overhead and energy in the network Considerable against with some others methods.

INDEX TERMS

- **Author Keywords**
  Directed Diffusion , Learning Automata , Multiplicity Routing , Wireless Sensor Network , component

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