

LABER: A Learning Automata Based Energy-aware Routing Protocol for Sensor Networks

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Abstract: One approach to prolong the lifetime of a sensor network is to balance energy consumption of different nodes in the network. This can be done using suitable routing strategies which can balance the traffic load among different nodes. In this paper, an energy-aware routing protocol called LABER is proposed which uses learning automata to find suitable paths in terms of balancing network traffic load. Simulation results show that the proposed method performs well in terms of balanced energy consumption of nodes and consequently, lengthening network lifetime.

Keywords: Sensor Networks, Energy-aware Routing, Learning Automata