

عنوان مقاله:

Fair, Optimized Routing Protocol Based on Fuzzy Variables in Wireless Sensor Networks

محل انتشار:

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خلاصه مقاله:

Providing desired QoS is one of the crucial issues in routing protocols design in wireless sensor networks. In this paper, a mechanism for routing in wireless sensor networks is presented using nonlinear optimization. Providing fairness in nodes energy consumption and increasing network lifetime are considered as the main parameters. Proposed routing protocol, which is called FORP (Fair, Optimized Routing Protocol), performs routing using nonlinear optimization. Furthermore, in order to improve proposed protocol efficiency, we will use fuzzy variables to consider environmental contention influences on the quality of data transmission in wireless connections. We can formulate network conditions better while fuzzy variables have been used in optimization solution. We will study proposed protocol efficiency using Opnet simulator. Simulation results confirm that FORP has achieved its goals

کلمات کلیدی:

Fuzzy variable, Nonlinear optimization, Providing fairness, Routing protocol, Wireless sensor networks

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