عنوان مقاله:

Routing Optimization of Satellite Wireless Sensor Networks based on Fuzzy logic and Markov chain

محل انتشار:

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خلاصه مقاله:

In this paper, we propose a routing optimization method for satellite wireless sensor networks that utilizes both fuzzy logic and Markov chain models. Wireless sensor networks are collections of distributed sensors that are used to monitor various physical or environmental conditions, such as temperature, vibration, pressure, and sound. These networks offer advantages in terms of quick configuration and low cost, but also require careful investigation and appropriate solutions for multi-step routing.To address this challenge, we first model the routing process using Markov chain models, which have been previously studied in literature. We then use a fuzzy algorithm to determine optimal routing based on the state matrix, which takes into account key variables that affect the stability and efficiency of the system.Our proposed method is aimed at improving the performance of satellite wireless sensor networks by using a combination of both Markov chain models and fuzzy logic. We anticipate that this approach will lead to more efficient and stable routing in these types of networks.

کلمات کلیدی:

WSN – Optimization – Sensors - Routing - Fuzzy Algorithm – Markov Chain

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