عنوان مقاله:

Coverage Improvement In Wireless Sensor Networks Based On Fuzzy-Logic And Genetic Algorithm

نویسندگان:

Elaheh Radmehr - *Islamic Azad University Neyshabour Branch*

HASSAN SHAKERI - *DEPARTMENT OF COMPUTER-FERDOWSI UNIVERSITY OF MASHHAD*

خلاصه مقاله:

Wireless sensor networks have been widely considered as one of the most important 21th century technologies and are used in so many applications such as environmental monitoring, security and surveillance. Wireless sensor networks are used when it is not possible or convenient to supply signaling or power supply wires to a wireless sensor node. The wireless sensor node must be battery powered.Coverage and network lifetime are major problems in WSNs so in order to address this difficulty we propose a combinational method consists of fuzzy-logic and genetic algorithms. The proposed scheme detects the coverage holes in the network and selects the most appropriate hole s neighbor to move towards the blank area and compensate the coverage loss with fuzzy-logic contribution and above node new coordinate is determined by genetic algorithm. As fuzzy-logic will be so effective if more than one factor influence on decision making and also genetic algorithms perform well in dynamic problems so our proposed solution results in fast, optimized and reliable output

کلمات کلیدی:

wireless sensor networks, fuzzy-logic, Genetic Algorithm, coverage hole

لینک ثابت مقاله در پایگاه سیویلیکا:

https://civilica.com/doc/892640