سیویلیکا - ناشر تخصصی مقالات کنفرانس ها و ژورنال ها
گواهی ثبت مقاله در سیویلیکا
CIVILICA.com

عنوان مقاله:

A fault tolerance routing protocol considering defined reliability and energy consumption in wireless sensor networks

محل انتشار:

مجله پیشرفت در مهندسی کامپیوتر و فناوری, دوره 1, شماره 1 (سال: 1394)

تعداد صفحات اصل مقاله: 8

نویسندگان:

Hamid Hassan Kashi - *Arak Branch, Islamic Azad University*

Amir Masoud Rahamni - *Department of Computer Engineering, Science and Research Branch, Islamic Azad University*

Mehdi Hoseinzadeh - *Department of Computer Engineering, Science and Research Branch, Islamic Azad University*

Vahid Sadatpour - *Department of Computer Engineering, Science and Research Branch, Islamic Azad University*

خلاصه مقاله:

In wireless sensor networks, optimal consumptionof energy and having maximum life time are important factors. In this article attempt has been made to send the data packets with particular reliability from the beginning based on AODV protocol. In this way two new fields add to the routing packets and during routing and discovering of new routes, the lowest remained energy of nodes and route traffic based on the number of discarded packages, will store in this field as two variables. These two variables will be considered during choosing a suitable route for sending the data to that message which should be answered by sink. The efficiency of this protocol is based on the fact that, at the route request, it finds the routes with high energy and low traffic through which data are sent(information is sent).So data packets reach the destination with a higher probability and also the balance of energy consumption is considered in the network. From the energy point of view, not using weak nodes routes leads to not having off nodes at the end of the process. This fact affects balancing of energy consumption and reducing the variance of the energy remainder proportional to AODV model. Not using high traffic routes leads to reducing collision and sending fewer signaling packets; more data packets with lower delay reach the destination. In the case of high congestion, for meeting the desired reliability, which is among the main goals there may be more sending signaling packets, delay .and collision. But this happens with sending more packets and a guaranteed reliability

کلمات کلیدی:

wireless sensor networks, Ad hoc Networks

لینک ثابت مقاله در پایگاه سیویلیکا:

https://civilica.com/doc/892705