

عنوان مقاله:

A New Method for Detection of a Distributed Event in Wireless Sensor Networks

محل انتشار:

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خلاصه مقاله:

Wireless Sensor Networks (WSNs) are usually consist of tiny sensor nodes which are often deployed in harsh environment and facing the fault conditions. In this article, a fault tolerant distributed event detection method based on the Bayesian approach is proposed for WSNs. Because of packet drops in WSNs, outputs of the sensors may lose some times, thus Kalman estimators are added to the detection scheme. In addition, a data fusion algorithm is employed to involve the statuses of the neighbourhood in the decision of each sensing point. The proposed distributed method is used to detect an event in a WSN with 400 sensor nodes. The event is considered in an area of 100 sensors. Also, some random faults occur in all sensing nodes. Results show the accuracy and significant performance of the proposed detection approach

کلمات کلیدی:

Distributed event detection, fault tolerance, Kalman filter, wireless sensor networks

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