

عنوان مقاله:

Provides a time dependent weighting technique for improving the LEACH clustering algorithm

محل انتشار:

سومین کنفرانس بین المللی مهندسی کامپیوتر و نرم افزار (سال: 1396)

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خلاصه مقاله:

The energy efficiency is one of important factors in wireless sensor networks. Energy, memory and processing power of the sensor nodes are limited. So the data are transferred to the base station in a multi-step procedure to be processed. For further use and to increase the life of this type of networks, researchers are always looking for ways which tend to reduce energy consumption. Majority of energy of the networks are used to transfer the data. Clustering of sensor nodes is one of the best ways that can significantly increase the life of the network. In this paper, using nodes weighting based on the density and energy of the node, a method for clustering is provided. Using a mechanism, it is desired to decrease the effect of weighting in the higher rounds so that the nodes with inadequate density but high energy of the high rounds do get a fair chance to become a cluster-head. MATLAB software simulation environment shows that the improved method compared to the previous methods in terms of longevity and energy consumption have developed.

کلمات کلیدی:

Wireless sensor networks (WSNs), Tracking, Node, Density, Weighting, Energy

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