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خلاصه مقاله:
In most applications of intelligent networks equipped with wireless sensors, it is not possible to charge the nodes' battery consistency and it is impossible under some conditions. Protocols designed for this type of networks should be energy efficient. The rapid consumption of battery power in wireless sensors and high power consumption in data transmission are two main challenges of this area. Nodes' clustering is a natural way of categorizing nodes close together with the aim of using related data and removing plug-in data. However, existing clustering protocols are unbalanced in the term of energy consumption. The cluster heads are not distributed equally and overload clusters (with excess load) are much shorter than under-load clusters (low load). To solve this problem, an improved cuckoo search-based clustering algorithm (ICSCAS) has been proposed in present study. Also, performance evaluation of ICSCAS and its comparison with advanced clustering schemes in terms of total energy and residual energy consumption have been represented.

کلمات کلیدی:
Clustering, Wireless Sensor Networks, cuckoo searc

لینک ثابت مقاله در پایگاه سیویلیکا: