

عنوان مقاله:

A New Hybrid Algorithm Based on ImperialistCompetitive and K-means Algorithms for Clustering of Nodes in WSN

محل انتشار:

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خلاصه مقاله:

Imperialist Competitive Algorithm is a collective intelligence algorithm whose performance is based on political, economic, and cultural interactions between countries. One of the main problems that are solved by collective intelligence algorithms is the clustering problem, which is applied to applications such as data categorization, image segmentation, reducing image saturation, and clustering of nodes in Wireless Sensor Networks (WSNs). In this paper, a K-means, hybrid algorithm based on modified imperialist competition is proposed and its performance on clustering of nodes in WSN networks is studied. Experiment results and comparing performance with several other node clustering algorithms show that WSN whose nodes are clustered with the proposed algorithm, achieves a longer lifetime than WSNs whose nodes are clustered by other algorithms.

کلمات کلیدی:

imperialist competitive algorithm, hybrid algorithm, K-means, clustering of nodes in WSNs

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