Investigation of Clustering Algorithms Used in Wireless Sensor Networks

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Abstract : Wireless sensor networks are networks in which more than one sensor node is organized among themselves. The working principle is based on the transfer of the sensed data over the other nodes in the network to the central station. Wireless sensor networks concentrate on routing algorithms, energy efficiency and clustering algorithms. In the clustering method, the nodes in the network are divided into clusters using different parameters and the most suitable cluster head is selected from among them. The data to be sent to the center is sent per cluster, and the cluster head is transmitted to the center. With this method, the network traffic is reduced and the energy efficiency of the nodes is increased. In this study, clustering algorithms were examined in terms of clustering performances and cluster head selection characteristics to try to identify weak and strong sides. This work is supported by the Project 17.Kariyer.123 of Afyon Kocatepe University BAP Commission.