Abstract

In this paper, a wireless cognitive radio sensor network is considered, where each sensor node is equipped with cognitive radio. As energy consumption is the main problem when using sensors therefore a new clustering algorithm is developed according to which group of nodes form cluster having a single cluster head. Each cluster has balanced energy which prolongs overall lifetime of CRSN. Cluster heads are rotated, depending on a threshold value, in such a way as to improve the lifetime of a cluster. As new cluster head is selected immediately whenever energy of old cluster head drops to certain threshold thus improves sensing results by CRSN nodes with minimum number of faulty decisions. Simulation results demonstrate working of schemes proposed and compares the pros and cons of each scheme.

References

Cluster based Energy Efficient Sensing for Cognitive Radio Sensor Networks


Index Terms

Computer Science Wireless

Keywords

Balanced energy clustering algorithm cluster head and cluster head rotation.