Optimal Duty Cycling with Sleep-wake Schedule between Paired Nodes and Flexible Routing across Pairs

Abstract

The sensor networks consist of the smaller sensor nodes which automatically constructs the routes between themselves to form the data delivery paths. There are several methods of energy conservation such as clustering, routing, duty cycling and many others. The duty cycling or sleep wake cycling is incorporated for the minimization for energy consumption. The effective duty cycling procedure requires the optimal selection of the sleep wake pairs adaptively constructed between the nodes, out of which one node goes sleep and another stays wake a particular point of time. In this paper, the adaptive optimal pairing with flexible routing has been utilized for the purpose of duty cycling in the sensor nodes. The proposed model has undergone several experiments and performed to be efficient enough. The proposed model has outperformed the previous models for duty cycling.

References

1. Zhu, Chunsheng, Victor Leung, Laurence T. Yang, and Lei Shu. "Collaborative


Index Terms

Computer Science Networks

Keywords

Sleep wake scheduling, duty cycling, smart routing, and flexible routing across pairs.