Abstract

In the area of Wireless Sensor Networks (WSNs), improving energy efficiency and network lifetime is one of the most important and challenging issues. On the one hand, the nodes need to stay alive as long as possible by achieving energy efficiency. On the other hand, they have to provide the required service. Energy efficiency based on clustering in wireless sensor networks is one of the most crucial technologies. Game theory has been used recently in a remarkable amount of research in this area. In this paper, we propose an algorithm based on game theory for clustering in wireless sensor networks. In this work our objective is to provide a game theoretical modeling of clustering for wireless sensor networks. Comparing this mechanism to a popular clustering technique, we show via simulations that achieves a performance similar to that of a very popular clustering algorithm.

References


Index Terms

Computer Science  Wireless
Keywords