Abstract

In wireless sensor networks, barrier coverage is one of the major challenge for high density area. To overcome this challenge, coverage control is the key solution for making more efficient and can program the sensors in active or idle state to maintain network coverage. Also, the random deployment with clustering of detection nodes plays a crucial role in the presence of an obstruction else that can become a viable route for attackers. In this paper, two strategies are proposed to resolve the problem of barrier coverage and to improve lifespan of the network. A Split and Schedule (SS) algorithm is proposed and the formation of clusters overcomes limitations with better solution. By comparing with other efficient algorithms, proposed SS algorithm sustains the better quality of network coverage and enhances the longevity of the sensor network.

References


Index Terms

Computer Science

Wireless

Keywords

Barrier Coverage, Cluster, Delay, Relay node, Network Lifetime, Sensor network