A Distributed Energy-Efficient Target Tracking Protocol for Three Level Heterogeneous Sensor Networks

Abstract

In this paper, a distributed energy-efficient target tracking protocol for three levels heterogeneous wireless sensor networks have been reported. We have proposed heterogeneous distributed algorithm HADEEPS, based on the scheduling and adjustable range that allow sensor nodes to go into different states. Here, three types of sensor nodes i.e. super, advance and normal nodes are used in our simulated network. These sensor nodes used through a heterogeneity model that directly impact on the battery power of sensor nodes and shuffling the cover set over time. The simulation results for target tracking protocol HADEEPS verify that the overall network lifetime significantly improved as compared with existing protocols. Lifetime of the network increases with three level heterogeneity because energy consumption is low as compare to homogeneous.

References

- Akshaye Dhawan,"Distributed Algorithms for Maximizing the Lifetime of Wireless
A Distributed Energy-Efficient Target Tracking Protocol for Three Level Heterogeneous Sensor Networks

Sensor Networks


**Index Terms**

Computer Science

Wireless
Keywords

Wireless sensor networks  energy-efficiency  lifetime  sensor nodes  adjustable sensing range.