Abstract

In this paper the effect on Zigbee mesh topology is analyzed by moving the nodes at different trajectories at different speed. The nodes are moved by using Helbert Space-filling curve, hexagon and outer square trajectory. The effect is analyzed in terms of load, delay and traffic received. Result shows that with change in trajectory the performance changes. Results have been analyzed by keeping 32 nodes fixed and all others moving at speed of 5 m/sec and 7 m/sec. It has been concluded that the hexagon trajectory performs better as compare to square trajectory at speed of 5 m/sec and at 7 m/sec when 32 nodes are kept fixed and all other are moving. Further it has been investigated that while moving 32 nodes and keeping all other fixed, the performance of square trajectory is better at speed of 5 m/sec and the performance of Helbert curve is better at speed of 7 m/sec.

References

Performance Analysis of Zigbee Mesh Topology by Varying Trajectory


Index Terms

Computer Science Networks
Keywords

WSN, ZigBee 802.15, OPNET.