Abstract

Zigbee is basically a self organizing digital radio network. It is based on IEEE 802.15.4 standard used for Wireless Sensor Network. This research work is related to CSMA/CA slotted and unslotted mode on IEEE 802.15.4 based wireless sensor network using three routing schemes. The simulation model is done by using OPNET 14.5. Performances metrics like throughput, data traffic sent and received, packet dropped in the network are determined and analyzed. The results show that the star topology in beacon enable mode give better result than the non beacon mode and overall performance is superior then other topologies.

References

- Zavosh Abdullahzadeh Davani, Azizah Abdu Manaf, "A Survey on Key
Modeling and Simulation of CSMA/CA Slotted and Unslotted Mode in Zigbee Routing Schemes

- Li-Hsing Yen, Yee Wei Law Marimuthu Palaniswami, Risk-Aware Beacon Scheduling for Tree-Based Zigbee/IEEE 802. 15. 4 Wireless Networks, IEEE transactions on mobile computing, vol. 11 no. 4, April 2012.

Index Terms

Computer Science Communications
Keywords

WSN  CSMA/CA  Zigbee  Network Topologies  Opnet 14. 5.