Abstract

The wireless communication has shown its improvement in sensor skills which motivates the wireless sensor networking. IEEE 802. 15. 4 was created with having few tremendous advantages like low-power, very low cost and low energy consumption in wireless consumption. From the last few years it has been used in man applications including hospitals, hotels, home, industrial controlling networks and the environmental monitoring. It is the basic standard which specifies the MAC layer and Physical layer for low rate wireless PAN at 2. 4GHz ISM band. IEEE802. 15. 4 is susceptible to interference from the other wireless technologies such as IEEE802. 15. 1 and IEEE80. 11. Here we have given a overview of the IEEE 802. 15. 4 and IEEE 802. 11 and analyse the performance of IEEE 802. 15. 4 and IEEE 802. 11. The parameters on which the simulation is done are packet loss, packet received, End-to-End delay, Energy consumption, bandwidth used and packet delivery ratio by using NS2 simulator software. The final simulation results evaluated by taking 30 and 50 nodes for both 802. 11 and 802. 15. 4 based networks.

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Performance Evaluation of MAC Protocol for IEEE 802. 11, 802. 11Ext. WLAN and IEEE 802. 15. 4 WPAN using NS-2

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Index Terms

Computer Science
Networks

Keywords
Wireless personal area network  Mac  IEEE 802. 11  IEEE 802. 11 Ext.  IEEE 802. 15. 4  NS2