

On the Performance Analysis of Coexistence between IEEE 802.11g and IEEE 802.15.4 Networks

Authors : Chompunut Jantarasorn, Chutima Prommak

Abstract : This paper presents an intensive measurement studying of the network performance analysis when IEEE 802.11g Wireless Local Area Networks (WLAN) coexisting with IEEE 802.15.4 Wireless Personal Area Network (WPAN). The measurement results show that the coexistence between both networks could increase the Frame Error Rate (FER) of the IEEE 802.15.4 networks up to 60% and it could decrease the throughputs of the IEEE 802.11g networks up to 55%.

Keywords : wireless performance analysis, coexistence analysis, IEEE 802.11g, IEEE 802.15.4

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