Performance analysis on spectrum coexistence between Wi-Fi networks and ground based radar using database assisted spectrum sensing scheme

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Abstract

Cognitive Radio (CR) is an intelligent method for opportunely access of idle resources and a solution for spectrum resource scarcity. In this article a new technique for spectrum sensing was proposed. The proposed technique combines spectrum sensing with geolocation database. The proposed technique is employed in the bands of 2.4-2.4835 GHz and 5.15-5.35 GHz. These bands cover quite large bandwidth and they are utilized only about 5% of the time.

Author keywords

Cognitive radio, Geolocation database, Radar, Spectrum sensing, Wi-Fi

Indexed keywords

Engineering controlled terms: Cognitive radio, Geolocation database, Radar, Spectrum sensing, Wi-Fi

Concise keywords

Geolocation database, Ground based radar, Hidden terminal, Cognition, Sensing, Spectrum sharing

Funding details

Funding sponsor: International Islamic University Malaysia (IIUM)

Funding text: This work is supported by the Research Initiative Grant Scheme (RIGS) provided by International Islamic University Malaysia. No. RIGS-15-154-0154.

DOI: 10.1109/IACES.2016.7662942

Document Type: Conference Paper

Volume/Issue: IEEE Xplore Digital Library

Publisher: Institute of Electrical and Electronic Engineers Inc.