

Parallel Transmission strategy for Channel Sensing Mechanism in Cognitive Radio Networks

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Abstract

Cognitive Radios are the best available options for the increasing number of devices and users who need to access the limited physical spectrum for wireless network communications. They use the spectrum efficiently and allow the secondary users to be accommodated to use the network spectrum when the primary users are not actively transmitting. However, sensing the channel for primary users and their active transmissions is a challenge because there are numerous parameters in the transmission that are uncertain. The paper addresses this problem of channel sensing by proposing a parallel transmission and hence power control scheme has been developed for the transmission to analyze the power management and QoS parameters. The design has been simulated using the Qualnet simulation tool.

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