

A Survey on Traditional Mac Layer Protocols in Cognitive Wireless Mesh Networks

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Abstract : Maximizing spectrum usage and numerous applications of the wireless communication networks have forced to a high interest of available spectrum. Cognitive Radio control its receiver and transmitter features exactly so that they can utilize the vacant approved spectrum without impacting the functionality of the principal licensed users. The Use of various channels assists to address interferences thereby improves the whole network efficiency. The MAC protocol in cognitive radio network explains the spectrum usage by interacting with multiple channels among the users. In this paper we studied about the architecture of cognitive wireless mesh network and traditional TDMA dependent MAC method to allocate channels dynamically. The majority of the MAC protocols suggested in the research are operated on Common-Control-Channel (CCC) to handle the services between Cognitive Radio secondary users. In this paper, an extensive study of Multi-Channel Multi-Radios or frequency range channel allotment and continually synchronized TDMA scheduling are shown in summarized way.

Keywords : TDMA, MAC, multi-channel, multi-radio, WMN'S, cognitive radios

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