IoT-Enabled Devices using Cognitive Radio Network Technology

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Abstract: *The proliferation of wireless applications has led to a rise in spectrum concerns. In order to accommodate new wireless devices with faster data rates, the unlicensed frequency spectrum is become extremely saturated. Additionally, the already allotted spectrum is not being used. Scientists have been working very hard to produce a solution to the problem of the restricted spectrum that may enable the creation of a more efficient use for it as a result of these improvements. Cognitive radio has been suggested as a solution to this problem since it allows opportunistic use of the licensed spectrum in less populated locations. An impression of the cognitive radio atmosphere, with a active spectrum access design, is assumed in this learning extra data proceeding the cognitive competences functioning in mixture*

This research paper inspects the use of cognitive radio in Internet of Things (IoT) communication machineries and the important role of cognitive radio in empowering the Internet of Things. It will provide a comprehensive analysis of spectrum sensing, including the various types of sensing, including machine learning-based sensing, as well as the open topics that remain to be explored in this sector. The research paper is structured in such a way that it provides detailed guidance for new researchers in the field of Cognitive Radio Networks.

Keywords: cognitive radio; internet of things; software define radio; spectrum sensing

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