Abstract

Cognitive Radio (CR) is a comparatively new technology which is based on the revolutionary idea that provides solution to the underutilization of spectrum and spectrum scarcity problem. CR allows a group of users to identify and access to available spectrum resources for their optimum use. In this paper we describe the CR starting from the traditional Radio and Software Defined Radio (SDR). We also introduce the concept of reconfigurability. CR can be implemented using reconfigurable hardware. Therefore, it needs a platform that offers higher performance and reconfigurability. In this paper we describe different existing implementation of CR in reconfigurable platform and make a comparative study of them.

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**Index Terms**

Computer Science Wireless Communications

**Keywords**

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