Abstract

The inefficient usage of limited radio spectrum resources with its increased demand has opened the doors for an innovative communication technology. The recently proposed concept of cognitive radio network can use the licensed bands of primary users for its data transmission without causing interference to them. The LT (Luby Transform) code and Raptor code, types of Fountain codes (class of erasure correcting codes) seems a promising approach to enhance the performance of wireless multimedia services. Since, the bandwidth usage is minimized with the use of Fountain code; it seems to be optimal to use it for cognitive networks. The paper discusses the work which has applied LT and Raptor coding for MBMS (Multimedia Broadcast/Multimedia Services) and cognitive networks and proposes a solution to further enhance the performance of cognitive radio networks.

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**Index Terms**

Computer Science
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**Keywords**

Cognitive radio  Fountain codes  LT (Luby Transform) code  Raptor code