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SURVEY ARTICLE

Effective Deployment of TV White Space for Enhancing Rural Broadband in India

Jai Sachith Paul[1], Akhil P Sivan[2], Kumar Raushan Ratnesh[3], Sreekala K[4]

Christ University Faculty of Engineering, Bangalore, Karnataka

[1] jai.paul@cse.christuniversity.in, [2] akhil.sivan@cse.christuniversity.in,

[3] kumar.ratnesh@cse.christuniversity.in, [4] sreekala.k@christuniversity.in

***Abstract*—The Radio spectrum has always been a scarce resource right from its initial deployment in 1920s. The television spectrum band is poorly utilized in Indian scenario. Also more efficient spectrum usage is possible with the migration from analogue to digital broadcasting. The use of Cognitive Radios allows an efficient use of the available resources so as to solve the problem of spectrum scarcity. An overview of the current T.V spectrum allocation in India along with the challenges and opportunities in the deployment of White Space using Cognitive Radio technology to enhance rural broadband is discussed in this paper.**

***Index Terms*—White Space Devices; digital dividend; spectrum sensing; RF propagation models; cognitive radio; SDR; opportunistic spectrum access; bootstrap; DSO**

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