

Simulation and Implementation of Spectrum Sensing Techniques (SST) of Cognitive Radio



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APPROVAL

It is stated that the project report submitted by group CSE-4 for the partial completion of the requisite of (BCE) “Bachelors of Computer Engineering” is approved.

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DEDICATION

We would love to dedicate this project to our beloved parents who always help and support us throughout our life no matter what to bring us at this stage. Without their support it must be unachievable. Love you Mom and Dad.

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ABSTRACT

The policy of fixed spectrum makes spectrum utilization efficient more difficult, through which maximum portion of primary spectrum was unutilized. The new innovation in communication technology called cognitive radio can use the primary (licensed) spectrum more efficiently and in flexible manner. It has ability to continuously change its working conditions according to fundamental interactions with radio environment surrounding it. The adaptation with environment is performed with the help of Spectrum Sensing Techniques. In this project, the implementation of three spectrum sensing techniques of Cognitive Radio is performed on MATLAB. Moreover, a prototype for the calculation of Interference Temperature is also presented on Spartan 3 FPGAs using Verilog.

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