**CHAPTER 7**

**CONCLUSION**

In this project, Cognitive Radio networks, multiple secondary network users attempt to communicate over wide potential spectrum without causing significant interference to the Primary Users. A spectrum sensing algorithm is a critical component of this strategy.

Performance of conventional spectrum detection methods is severely limited when the average SNR of the fading channel between the PU transmitter and the SU is low. Cooperative sensing can conflict the channel fading, but requires a large number of cooperating SUs and diversity branches.

The cognitive radio is an emerging technology that enables dynamic spectrum access in wireless networks. The cognitive radio is capable of opportunistically using the available portions of a licensed spectrum to improve the performance for unlicensed users. The opportunistic use of the available channels in the wireless environment requires dynamic channel assignment to efficiently utilize the available resources while minimizing the interference in the network.