Abstract

Cognitive relay networks (CRNs) combine cognitive radio technique and cooperative relay technology. Cognitive radio offers a tempting solution to increase spectrum usage efficiency by proposing opportunistic usage of frequency bands between primary and secondary users. Many techniques are used to improve the performance of the cognitive relay networks. One of these techniques is using multiple antennas at relay. Another technique is using multiple antennas at the receiver of the system which exist at the energy detector (ED) which is not clarified until now. Adaptive relay protocol (ARP) will be used. Analysis of this system will be made. Moreover different combining techniques will be applied.

References

- S. Haykin, "Cognitive Radio: Brain-empowered Wireless Communications,"


**Index Terms**

Computer Science

Wireless Communications
Keywords
Cognitive Relay Networks  Cooperative Relay  Multiple Antennas.