Abstract

Abstract-Cognitive radio (CR) can be programmed and configured dynamically to use the best wireless channels in its vicinity. Such a radio automatically detects available channels in wireless spectrum, then accordingly changes its transmission or reception parameters to allow more concurrent wireless communications in a given spectrum band at one location. This process is a form of dynamic spectrum management. The spectrum sensing problem has
gained new aspects with cognitive radio networks. Radio spectrum is the most valuable resource in wireless communication. The cognitive radio and cognitive based networking are transforming the static spectrum allocation based communication systems in to dynamic spectrum allocation. Cognitive radios are intelligent devices with ability to sense environmental conditions and can change its parameters according to the requirements to get the optimized performance at the individual nodes or at network level Thus, CR is widely regarded as one of the most promising technologies for future wireless communications.

References

- P. D. Sutton, J. Lotze, K. E. Nolan, and L. E. Doyle, "Cyclostationary signature


Index Terms

Computer Science
Networks
Keywords
Cognitive Radio; Dynamic Spectrum Access; Software-defined Radio