Performance Analysis of Cyclostationary Spectrum Sensing Over Different Fading Channels

International Journal of Computer Applications
Foundation of Computer Science (FCS), NY, USA

Volume 129
Number 1

Year of Publication: 2015

Authors:
Amandeep Singh Bhandari, Charanjit Singh

10.5120/ijca2015906818
{bibtex}2015906818.bib{/bibtex}

Abstract

In research area of wireless communication, cognitive radio gets more endearment in recent times. The main motive behind the use of cognitive radio is to sense the available spectrum, which is very limited, for the users who wish to use it for the transmission purpose. The users can be primary or secondary, based on, whether they are licensed or un-licensed. Different goals of cognitive radio include spectrum sensing, spectrum sharing, spectrum management, and spectrum mobility. Spectrum sensing plays vital role in the cognitive radio system since it is used to detect signal presence on the air. This paper signifies the role of Cyclostationary Spectrum Sensing technique to define a device capable of detecting OFDM signals in a noisy environment. The work has been done for the applications employed in high frequency, such as, Wi-Fi and WiMAX.

References


**Index Terms**

Computer Science  
Signal Processing
Keywords

Cognitive radio, spectrum sensing, Rayleigh fading, Rician fading, FFT accumulation