Abstract

The various spectrum sensing schemes involved in cognitive radio have always been researched and discussed. An ideal detection scheme should be fast, accurate and efficient. Cyclostationary feature detection is a detection scheme that satisfies all these criteria. The method also possesses the ability to distinguish between noise and the primary user signal. One major advantage of cyclostationary feature detection method is that in addition to identifying the primary user signal, it also identifies the modulation scheme used by the primary user. This paper investigates the cyclostationary feature detection method under different modulation schemes. In this paper, cooperative spectrum sensing is performed which involves the cooperation among various cognitive relay nodes. Cooperative spectrum sensing is thus found to be an effective technique to improve the detection performance by exploring the spatial diversity of various relay nodes.
Cyclostationary Feature Detection in Cognitive Radio using Different Modulation Schemes

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**Index Terms**

Computer Science  
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Cognitive Radio  
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Cyclic Spectral Correlation Function

Cooperative Spectrum Sensing

Primary User