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## Performance of hybrid sensing method in environment with noise uncertainty

### Tytuł

Performance of hybrid sensing method in environment with noise uncertainty

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Abstract: The paper presents a novel hybrid spectrum sensing method used in cognitive radio and presents a hybrid detector (HD) which improves the sensing performance. The proposed HD takes advantage of the energy detection (ED) principle and a method based on Covariance Absolute Value (CAV), as well as on Cyclic Autocorrelation Function (CAF). The paper shows the limitations of

using ED, resulting from the uncertainty of spectral density of noise power estimation, known as the SNR wall. The paper describes a system model and presents simulation results for the OFDM signal of a WiMAX-based communications system. The simulation results refer to an ideal environment with well-known parameters, and to an environment with uncertain spectral density of noise power estimation.

Keywords: Covariance Absolute Value Cyclic Autocorrelation Function hybrid detector noise uncertainty OFDM SNR wall WiMAX

## Powiązane publikacje

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## Adres url strony

<http://yadda.icm.edu.pl/baztech/element/bwmeta1.element.baztech-bb631c81-36ab-4923-bb96-937134565ca7>

## Plik

