

An Optimised SVD with ABC for Spectrum Sensing in Cognitive Radio

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Abstract –The aim of this study is to focus on spectrum sensing in cognitive radio which is a recently introduced technology in order to increase the spectrum efficiency. We studied the Singular value decomposition based signal detector and its advantages over the energy based signal detection. Soft thresholding technique for spectrum sensing is optimized using Ant Bee Colony algorithm. Results shows that ABC outperforms then SVD based signal detector to improve its performance, especially under low SNR simulation.

Keywords – Ant Bee Colony Algorithm, Cognitive Radio, SNR, Spectrum Sensing, SVD.

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