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IET Communications
(Formerly IEE Proceedings Communications)
Special Issue on Cognitive Spectrum Access

Spectrum is a valuable commodity which is increasingly congested, fragmented and/or re-farmed. The temporal, spectral and spatial peak-to-average utilisation ratio, however, is very large, suggesting that the spectrum is not utilised efficiently enough. With an increasing plethora of available services and ubiquitously underlying technologies, context-aware detection of spectral, temporal and spatial opportunities will play a pivotal role in a future wireless communication system.

The aim of this special issue is hence to expose current state-of-the-art cognitive spectrum access approaches from various disciplines. We are particularly interested in the design of fast converging algorithms (hence facilitating temporal opportunities) with a high spectral resolution (hence facilitating spectral opportunities) and the ability to cooperate with adjacent context-aware terminals (hence facilitating spatial opportunities) to offer the best possible solution to the running services in a given context. This is of particular interest to operators, service providers and policy makers, and will also certainly impact spectrum assignment policies, etc. The editors of this special issue seek original contributions in all areas of cognitive spectrum access, including but not limited to:

- fundamental performance limits of cognitive spectrum access techniques
- novel architectures and algorithms
- agile temporal, spectral and spatial sensing techniques
- cognitive protocols at various layers
- cross-layer aspects facilitating cognitive access
- mechanisms protecting primary spectrum users
- game and cooperative theories with application to cognition
- dynamic spectrum management
- interdisciplinary research for cognitive spectrum access
- cognitive radio systems architecture
- opportunistic radio scenarios

Paper Format

Papers must be typed in a font size no smaller than 10 pt, and presented in **single-column format** with **double line spacing** on one side A4 paper. All pages should be numbered. The manuscript should be formatted according to the IET Research Journals requirements, typically 4000-6000 words long with 6-10 Figures. Detailed information about IET Research Journals, including an author guide and detailed formatting information is available at:

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Paper Submission

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Important Deadlines:

Manuscript Due: September 1, 2007

Acceptance Notification: December 1, 2007

Final manuscript due January 1, 2008

Publication Date: Spring 2008

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