EURASIP Journal on Wireless Communications and Networking

Special Issue on Dynamic Spectrum Access for Throughput, Delay, and Fairness Enhancement In Cognitive Radio Networks

Cognitive radio, with the capability to flexibly adapt its parameters, has been proposed as the enabling technology for unlicensed secondary users to dynamically access the licensed spectrum owned by legacy primary users on a negotiated or an opportunistic basis. Such a dynamic spectrum access provides a promising approach to overcoming the spectrum scarcity problem resulted from the dramatic increase of spectrum demands driven by emerging applications. This special issue solicitates original and unpublished papers proposing novel research and development techniques and methodologies to address the fundamental problems and challenges of enhancing cognitive radio network throughput, delay, and fairness via dynamic spectrum access.

Potential topics include, but are not limited to:

- Performance (throughput, delay, and fairness) modeling
- Measurements and statistical modeling of spectrum usage
- Cooperative and distributed spectrum sensing and prediction
- Cognitive medium access control and spectrum sharing
- Dynamic spectrum access in heterogeneous spectrum environment
- Spectrum-aware routing in cognitive radio networks
- Spectrum mobility and management in cognitive radio networks
- Spectrum allocation for multiple-input multiple-output (MIMO)-based cognitive radio networks
- Security and robustness issues of dynamic spectrum access in cognitive spectrum-agile networks
- Co-existence of heterogeneous cognitive networks and interference management via dynamic spectrum access
- Spectrum pricing, economics models and game theory for dynamic spectrum access
- Implementation aspects, simulation tools, and testbeds
Submission instructions:

Before submission authors should carefully read over the Instructions for Authors, which are located at jwcn.eurasipjournals.com/authors/instructions. Prospective authors should submit an electronic copy of their complete manuscript through the SpringerOpen submission system at jwcn.eurasipjournals.com/manuscript according to the submission schedule. They should choose the correct Special Issue in the “sections” box upon submitting. In addition, they should specify the manuscript as a submission to the “Special Issue on Dynamic Spectrum Access for Throughput, Delay, and Fairness Enhancement In Cognitive Radio Networks” in the cover letter. All submissions will undergo initial screening by the guest editors for fit to the theme of the Special Issue and prospects for successfully negotiating the review process.

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Submission Schedule
Manuscripts due: August 15, 2014