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Important Dates:

Paper submission: **31 December, 2008**

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Publication: **Fall 2009**

Submission Guidelines:

All manuscripts and any supplementary material should be submitted through Elsevier Editorial System (EES). The authors must select “*Spectrum Sharing Systems*” when they reach the “Article Type” step in the submission process. The EES website is located at

<http://ees.elsevier.com/comcom/>.

CALL FOR PAPERS

Special Issue of Computer Communications on *Cognitive Radio and Dynamic Spectrum Sharing Systems*

<http://www.elsevier.com/locate/comcom>

Scope:

Cognitive Radio (CR) and dynamic spectrum sharing systems use innovative spectrum management techniques, which allow different systems to share the same frequency band to utilize the radio spectrum in an efficient way. CR technology enables the development of an intelligent and adaptive wireless communication system that is essentially aware of the radio frequency environment. Consequently, the communication parameters (such as carrier frequency, bandwidth and transmission power) can be dynamically chosen so that the spectrum usage is optimized. The realization of this revolutionary technology, however, poses many technical challenges including protocol design, interference metric characterization, environment awareness, as well as development of distributed algorithms, distributed measurement techniques, and quality of service (QoS) guarantees. Recent research efforts include considerations of different physical layer technologies, spectrum sensing, coexistence mechanisms between legacy and other users, shared medium access among many users, resource management and distributed protocols for cognitive radio networks. The aim of this special issue is to bring together the state-of-art research results on cognitive radio networks and their applications. We seek original completed and unpublished work not currently under review by any other journal/magazine/conference. Topics of interest include, but are not limited to:

- Information theory for cognitive radio
- Multiple access schemes for cognitive radio
- Resource management in cognitive radio networks
- Spectrum sensing mechanisms and protocol support
- Spectrum sharing/trading in cognitive radio networks
- Efficient multi-band multi-resolution channel sensing algorithms
- Synchronization and channel estimation for cognitive radio
- Pricing for spectrum sharing in cognitive radio
- QoS provisioning in cognitive radio networks
- Cooperation and game theory for cognitive ratio networks
- Cross-layer design for cognitive radio
- Anti-jamming channel coding
- Interdisciplinary research for cognitive radio
- Security issues in cognitive radio networks
- Energy management
- Capacity and achievable data rates in cognitive radio networks
- Standards
- Experimental test-beds and results

Submission Format:

The submitted papers must be written in English and describe original research which is not published nor currently under review by other journals or conferences. Author guidelines for preparation of manuscript can be found at <http://www.elsevier.com/locate/comcom>. For more information, please contact the guest editors or Co-Editor-in-Chief, Mohammed Atiquzzaman (atiq@ou.edu)