



The First International Workshop on  
**Cognitive Wireless Networks**  
in conjunction with

## QShine 2007

Vancouver, British Columbia, Canada, August 14–17, 2007

<http://www.qshine.org/>

Sponsored by Create-Net and ICST

In-Cooperation with ACM SIGMM, SIGMOBILE, and SIGSIM

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### Call for Papers

**Overview** – Cognitive radio has emerged as a promising technology for maximizing the utilization of the limited radio bandwidth while accommodating the increasing amount of services and applications in the wireless networks. Recently, we have witnessed a flurry of research in dynamic spectrum access and cognitive radio. The First International Workshop on Cognitive *Wireless Networks*, in conjunction with the Fourth International Conference on Heterogeneous Networking for Quality, Reliability, Security and Robustness (QShine 2007), will focus on the research challenges associated with the design, implementation, and application of cognitive and spectrum agile wireless networks for the next generation (e.g., fourth generation) wireless communications systems.

**Scope** – Original papers describing both theoretical and experimental results associated with the design of cognitive and spectrum-agile wireless networks are solicited. Topics of interest include, but are not limited to, the following:

- ◆ Fundamental performance limit of dynamic spectrum access
- ◆ Challenges and issues in designing cognitive radio systems
- ◆ Architectures and building blocks of cognitive radio
- ◆ Spectrum sensing, measurements and statistical modeling of spectrum usage
- ◆ Spectrum awareness and dynamic channel selection
- ◆ Distributed cooperative spectrum sensing
- ◆ Distributed adaptation and optimization methods
- ◆ Cognitive machine learning techniques
- ◆ Interoperability and co-existence issues
- ◆ Cognitive MAC and routing protocols for dynamic spectrum access
- ◆ Security and robustness of cognitive spectrum-agile networks
- ◆ Cross-layer optimization of cognitive radio systems
- ◆ Applications of cognitive radio networks
- ◆ Pricing models for spectrum sharing in cognitive radio
- ◆ Regulatory policies and their interactions with signal processing and networking
- ◆ Cognitive radio test-beds and hardware prototypes

Accepted papers will be published in the ACM International Conference Proceedings Series and will be made available in ACM Digital Library, as well as indexed by EI and ISI Index.

**Paper Submission** – Manuscripts which present original materials not previously published in, or currently under review by, another conference or journal, are invited. The size of the manuscript should be limited to 7 pages (including all figures and references) formatted according to <http://www.acm.org/sigs/pubs/proceed/template.html> with font sizes of 11 or larger. A separate abstract of no longer than 200 words should be submitted as well. Submissions will be judged by their originality, significance, interest, clarity, relevance, and correctness. All papers should be electronically submitted in Adobe PDF format. Please follow the submission instructions at <http://www.qshine.org/submission.html> to submit your paper.

#### Important Dates

Paper submission deadline:	May 15, 2007, 11:59pm PST
Notification of acceptance:	June 5, 2007
Camera-ready papers due:	June 30, 2007 (Hard Deadline)
Workshop:	August 14, 2007

