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IEEE Workshop on Cognitive Radio Networks (CRN)

CCNC 2007 - Satellite Workshop

11 January 2007, Las Vegas, Nevada, USA

Sponsored by the IEEE Communications Society

Technical Sponsorship: IEEE Technical Sub-committee on Cognitive Networks

Workshop Theme

Cognitive radio networks are intelligent networks that can automatically sense the environment and adapt the communication parameters accordingly. These types of networks have applications in dynamic spectrum access, co-existence of different wireless networks, interference management, etc. They are touted to drive the next generation of devices, protocols and applications. Clearly, the cognitive radio network paradigm poses many new technical challenges in protocol design, power efficiency, spectrum management, spectrum detection, environment awareness, new distributed algorithm design, distributed spectrum measurements, QoS guarantees, and security. Overcoming these issues becomes even more challenging due to non-uniform spectrum and other radio resource allocation policies, economic considerations, the inherent transmission impairments of wireless links, and user mobility.

Topics of Interests

Papers offering novel research contributions in all aspects of cognitive radio networks are solicited. Topics of interest include, but are not limited to:

- Spectrum etiquette and dynamic spectrum sharing techniques
- Fundamental performance limits of cognitive radio communications
- Wideband sensing and multiband agile wireless networks
- Platforms for the support of adaptive, spectrum agile, and cognitive networks (e.g., software defined radios, reconfigurable radios)
- Cognitive protocols and algorithms from PHY to Application layers
- Interference measurements and metrics
- Cross-layer cognitive algorithms
- QoS provisioning in adaptive, spectrum agile, and cognitive networks
- Interoperability, interference and co-existence of dissimilar wireless networks
- Simulation of cognitive wireless networks
- Support for multimedia applications
- Security issues
- Spectrum policy reform issues
- Economics of spectrum policy reform
- Standardization

Guidelines for Submission

- Submitted papers must represent original material that is not currently under review in any other conference or journal, and has not been previously published.
- Paper length should not exceed five-page technical paper manuscript. Please see author information page for submission guidelines at CCNC'07 website (<http://www.ieee-ccnc.org>). The paper should be used as the basis for a 20-30 minute Workshop presentation.
- Papers should be submitted in a .pdf or .ps format by selecting CCNC'07 at the EDAS paper submission website (<http://www.edas.info>) and then selecting the workshop submission link.
- A separate cover sheet should show the title of the paper, the author(s) name(s) and affiliation(s), and the address (including e-mail, telephone, and fax) to which the correspondence should be sent.
- All accepted papers will be published in the conference proceedings.
- At least one author of accepted papers is required to register at the full registration rate.

Important Dates:

- Paper submission deadline: 4th September 2006
- Author notification: 2nd October 2006
- Final camera ready paper submission deadline: 10 October 2006
- Author registration deadline: 8 October, 2006
- Workshop date: 11 January 2007

Workshop Organizing Committee

Symposium Co-chairs:

Huseyin Arslan, University of South Florida, USA
Cynthia Hood, Illinois Institute of Technology, USA

Publicity Co-chairs:

Yiping Xing, Stevens Institute of Technology, USA
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Kamesh Namuduri, Wichita State University, USA
Balasubramaniam Natarajan, Kansas State University, USA
Keith Nolan, Trinity College Dublin, Ireland
Ashish Pandharipande, Samsung Advanced Institute of Technology, Korea
Sumit Roy, University of Washington, USA
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Vahid Tarokh, Harvard University, USA
Alexander Wyglinski, The University of Kansas, USA
Linda Jiang Xie, University of North Carolina at Charlotte, USA
Honggang Zhang, Create-Net, Italy
Haitao Zheng, Univ. of California, Santa Barbara, USA