CrownCom 2007

Second International Conference on Cognitive Radio Oriented Wireless Networks and Communications

August 1-3, 2007, Orlando, Florida, USA

Access to the radio spectrum is presently regulated via license, where the rights to use specific spectral bands are granted exclusively to an individual operator, or completely unlicensed, where certain spectral bands are declared open for free use by any operator or individual following specific rules. While these paradigms have allowed the wireless communications sector to blossom in the past, there is much talk recently about the so-called "cognitive radio" paradigm, wherein spectrum may be efficiently shared in a more flexible fashion by a number of operators/users/systems. Cognitive radio can be thus viewed as an enabling technology that will benefit several types of players, by introducing new communications and networking models for the whole wireless world, creating better business opportunities for the incumbent operators and new technical dimensions for smaller operators, and helping shape an overall more efficient approach regarding spectrum requirements and usage in next generation wireless networks.

The aim of this conference is to bring together the state of the art research contributions that address the various aspects of cognitive wireless systems and technologies, including a broad range of communications, networking and implementation issues. We seek original and unpublished work not currently under review by any other journal/magazine/conference. Topics include, but are not limited to, the following:

- Wide-band spectrum sensing
- Interference metrics and measurement
- Multi-band, spectrum-agile and adaptive radio transceivers
- Radio resource management and dynamic spectrum sharing
- Cross-layer cognitive algorithms
- Bio and AI-inspired algorithms
- Wireless network co-existence
- Ultra-Wideband cognitive radio systems
- Platforms and hardware implementation for the support of cognitive radio
- Radio access protocols and algorithms for the PHY, MAC, and Network layers
- Linear network coding, cooperative coding and MIMO techniques for cognitive radio
- Simulation, modeling and analysis of cognitive wireless networks
- Self-organizing mesh networks and autonomic communications
- Test-bed and experimental prototypes
- Trust and security mechanisms
- Policies, economics and standardization for cognitive spectrum access

PANELS Proposals for panel discussions that focus on policy, economics, standards, applications, technology and deployment of cognitive radio networks are preferred. Potential panel organizers should submit a panel proposal of at most 5 pages, including biographical sketches of the proposed panelists, to the Panel Co-Chairs (peha@cmu.edu and ktlim@ece.gatech.edu) by April 1, 2007.

TUTORIALS The conference will include full-day and half-day tutorials. Tutorial proposals must include a title, abstract, intended audience, list of topics, and biography of the presenter. Proposal must be submitted to the Tutorials Co-Chairs (bushsf@research.ge.com and sbiswas@egr.msu.edu)

SPECIAL SESSIONS The conference will include special sessions to complement the regular sessions. Special session proposals must include a title, rationale for the special session, list of potential authors, and biography of the organizers. Proposals must be submitted to the Special Sessions Co-Chairs (ksubbala@stevens.edu and wlehr@cfp.mit.edu).

SUBMISSION INSTRUCTIONS Conference language is English. Papers should be concisely written. Suggested paper length for review is 6-page in IEEE conference proceedings format (two column and 10-point font). Papers exceeding 10-page limit will not be reviewed. Prospective author should submit PDF version of the full paper online through the COCUS system at http://cocus.create-net.org/.

PUBLICATION All submitted papers will be peer reviewed. Accepted full papers and work-in-progress papers will be published in the conference proceedings by IEEE and available at IEEE Xplore. Selected full papers will be published in a special issue by ACM/Springer MONET journal.

BEST PAPER AWARDS A best paper award and a best student paper award will be presented, sponsored by the Center for Intelligent Networks (iNETS), Stevens Instituteof Technology.

Important Dates

Tutorial Proposals Due	March 1, 2007
Special Session Proposals Due	March 1, 2007
Paper Submission Due	**April 2, 2007 ***NEW*****
Acceptance Notification	**May 15, 2007 ***NEW*****
Camera-Ready Papers Due	June 1, 2007

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