

Third International Conference on Cognitive Radio Oriented Wireless Networks and Communications



CrownCom 2008
15 - 17 May 2008
Singapore

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CALL FOR PAPERS

Today, access to radio spectrum is largely based on the principle of fixed resource allocation. With the proliferation of wireless applications/services in the last couple of decades, in many countries, most of the available spectrum has been allocated. This results in the radio spectrum scarcity which poses a serious problem for the future development of the wireless communications industry. On the other hand, careful studies of the usage pattern reveal that most of the allocated spectrum experiences low utilization. This motivates the concept of dynamic spectrum access via cognitive radio technologies, which allows secondary networks to use unused or under-utilized radio spectrum from primary licensed networks.

The aim of this conference is to set up a platform for academia, research engineers and policy makers to bring together the state-of-art research and development results. We target at contributions dealing with policy and regulation issues on dynamic spectrum access, theoretical studies, multiple access / signaling schemes, algorithms and protocol designs for cognitive radio, as well as application and implementation-oriented contributions dealing with software define radio, generic architectures and programmable platforms. We seek original and unpublished work not currently under review by any other journal/magazine/conference.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:

Policy and Economics Track:

- Regulations for Cognitive Radio
- Market trend for secondary spectrum usage
- Business model for dynamic spectrum access
- Industrial role for dynamic spectrum access
- Trust and security mechanisms
- Game theory for dynamic spectrum auction

Technology Track:

- New architecture and platform for cognitive radio & software define radio
- Spectrum sensing mechanism and protocol support
- Efficient and multi-resolution channel sensing algorithm
- Multiple access scheme for cognitive radio
- Synchronization and channel estimation for Cognitive Radio
- 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
- Beamforming and MIMO for interference avoidance
- Anti-jamming channel coding
- QoS provisioning and MAC protocol
- Interference metric modeling
- Self-organizing mesh networks and autonomic communications

PANELS: Proposals for panel discussions that focus on policy, economics, standards, applications, technology and deployment of cognitive radio networks are preferred. Potential panel organizers are invited to submit a panel proposal of at most 5 pages, including biographical sketches of the proposed panelists. Details can be found in the conference website.

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. Details can be found in the conference website.

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. Details can be found in the conference website.

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. Submission details can be found in the conference website.

Important Dates

Paper Submission Due: 15 Jan 2008

Tutorial Proposals Due: 15 Jan 2008

Special Session Proposals Due: 15 Dec 2007

Acceptance Notification: 1 Mar 2008

Camera-Ready Papers Due: 24 Mar 2008

Conference Dates: 15 – 17 May 2008