



Report on CROWNCOM 2007

CROWNCOM 2007 was held in Orlando, Florida, USA, from July 21-Aug. 2, 2007. Even though this was only the second conference in this series, CROWNCOM 2007 already showed signs of a top tier technical meeting dealing with all aspects of cognitive radio oriented wireless networking and communications. The technical program was very strong including submitted and invited papers, special sessions, panel discussions, keynote speeches and tutorials.

The inter-disciplinary nature of CROWNCOM 2007 can be recognized by the fact that it was technically sponsored by the IEEE ComSoc, IEEE VTS, IEEE MTT-S, EURASIP, CREATE-NET, ICST and Stevens Institute of Technology. Stevens Institute of Technology's Center for Intelligent Networks (iNETS) also provided financial sponsorship for the Best Paper Awards.

The conference hosted three internationally recognized experts as keynote speakers. Dr. Joseph Mitola III, Consulting Scientist at MITRE Corporation gave a keynote talk on the role of cognition and its applications in future wireless communication systems. Dr. Robert O'Dea, Motorola Fellow, Motorola Inc. presented his views on cognitive radios from an industry's perspective. He highlighted the different views on cognition. Dr. Victor Lawrence, Associate Dean and Director of iNETS, Stevens Institute of Technology, talked about the importance of cognitive networks in the military, FCC policies, etc. There were lively discussions at the end of each keynote talk.

The technical program included 78 accepted, peer-reviewed papers covering a broad range of research issues. These papers were organized into 18 technical sessions, which included one special session on the fundamental theory of dynamic spectrum access organized by Dr. Ananthram Swami (US Army Research Labs) and Dr. Qing Zhao (University of California Davis), three sessions on spectrum sensing, two sessions on resource allocation, two sessions on cognitive radio design, two sessions on physical layer issues, three work-in-progress sessions, and one session each on interference, MAC, channel assignment and MAC, platforms and testbeds, and applications, security, and policies. Selected accepted papers will appear in an ACM MONET 2008 special issue.

The technical program included 11 invited papers, 53 accepted (out of 88 submissions) full papers, and 14 work-in-progress short papers. Every submitted paper was reviewed by at least three independent reviewers.

This year's two Best Student Paper Award winners were Juan-Andres Bazerque and Georgios B. Giannakis of the Univ. of Minnesota for their paper titled "Distributed Scheduling and Resource Allocation for Cognitive OFDMA Radios" and Fan Wang, Marwan Krunz, and Shuguang Cui of the Univ. of Arizona for their paper titled "Price-Based Spectrum Management in Cognitive Radio Networks". These two papers were chosen by the TPC Co-Chairs based on their originality, depth, and potential impact.

Two panel discussions were organized. One panel organized by David Grandblaise (Motorola, France) and Patricia Martigne (Orange-FTP Group) discussed QoS support in cognitive radio networks. The panel members were Kiran Challapalli (Philips Research), Klaus Mossner (University of Surrey), John Sydor (CRC, Canada) and Kazunori Takeuchi (KDDI R&D Labs). The other panel on spectrum sharing with TV broadcasters was organized by Jon Peha (CMU). The panelists were Jon Peha (CMU), Bruce Franca (MSTV), Kiran Challapalli (Philips Research), Kyutae Lim (Georgia Tech) and Chuck Jackson (JTC). The panel discussions provided a good forum for the panelists as well as the audiences to debate the issues of cognitive networks using both technical and sometimes philosophical arguments!

Two tutorials were presented. The first one by Luiz DaSilva and A. B. MacKenzie of Virginia Tech introduced the fundamental concepts of cognitive networks. The second tutorial by B. Farhang-Boroujeny and R. Kempter of the University of Utah presented the signal processing aspects of cognitive wireless networks. Both the tutorials were well attended.

We thank all the conference organizers, committee members, reviewers, authors, presenters, sponsors, and the technical societies for making CROWNCOM 2007 a grand success. Special thanks to Mainak Chatterjee and the students of the University of Central Florida for their great effort with the local arrangements.

CROWNCOM 2008 will be held in Singapore from May 15-17, 2008. We wish them our very best for another successful conference.

R. Chandramouli, Stevens Institute of Technology
Fred Martin, Motorola
General Co-Chairs, CROWNCOM 2007

The CROWNCOM 2007 Highlights



Keynote Speech by Dr. Joseph Mitola III



Keynote Speech by Dr. Victor Lawrence



Keynote Speech by Dr. Robert O'Dea



Opening Ceremony of CrownCom 2007



Technical Sessions at CrownCom 2007



Best Student Paper Award Winners (Juan-Andres Bazerque and Georgios B. Giannakis of the University of Minnesota)



Best Student Paper Award Winners (Fan Wang, Marwan Krunz, and Shuguang Cui of the University of Arizona)