

# IWCMC 2010

(The 6th Intl. Wireless Communications & Mobile Computing Conference)

## Cooperative and Cognitive Networks Symposium

<http://iwcmc.com/>

June 28 – July 2, 2010  
Caen, France

### DESCRIPTION

With the recent advances in network technologies, there has been a growing interest in new networking paradigms such as cooperative communications and cognitive networking. Various applications of ubiquitous networking and cloud computing are at the heart of such development. Cooperative networks assume collaborative operation of two or more wireless networks where the cooperation manifests a new form of space diversity to combat the effects of severe fading that has been termed cooperative diversity. Moreover, it is also helpful in reducing complexity of routing problems and realizing seamless networking through dynamically migrating users to meet QoS and reliability requirements in a cost-efficient manner. The concept of cooperative communications for wireless networks, such as cellular networks, sensor networks, and wireless ad hoc networks, has recently attracted significant attention. Different from conventional point-to-point communications, cooperative communications and networking allows different users, nodes and networks to share resources or strategies to create collaboration through distributed processing. The emerging paradigm of cognitive networking is expected to synergize such development toward future generation networking through its automated configuration, cognition and learning capabilities to respond and dynamically adapt to the ever-changing environment. The aim of this symposium is to bring together a highly scholarly group of people with interest in cognitive and cooperative networks and investigate the newest trends in this emerging area to complement each other.

### SCOPE

Original papers describing both theoretical and experimental results are solicited. Topics of interest include, but are not limited to, the following:

- Architectures, Challenges and issues of Cognitive and Cooperative Wireless Networks
- System capacity, outage probability, performance analysis and optimization
- Cross-layer design and optimization

- Security and robustness
- Pricing models, billing, dynamic spectrum access markets
- Spectrum sensing, measurements and statistical modeling of spectrum usage
- Distributed cooperative spectrum sensing
- Distributed adaptation and optimization methods
- Etiquette protocols for multi-user cognitive radio networks
- Cognitive machine learning techniques
- Interoperability and co-existence issues
- Cognitive MAC and routing protocols for dynamic spectrum access
- Applications of cognitive radio networks
- Regulatory policies & Emerging standards
- MIMO cooperative communications and distributed space-time coding
- Differential/non-coherent cooperation systems
- Cooperative multimedia communications and networking
- Resource allocation and management for cooperative communications
- Cooperative routing and scheduling for ad hoc and sensor networks
- Impact of cooperation in cellular networks, WLAN, and existing standards
- Practical implementations, radio test-beds and hardware prototypes

## **PAPER SUBMISSION**

Prospective authors are invited to submit technical papers electronically through EDAS (<http://edas.info/>). All submissions should be written in English with a maximum paper length of five (5) printed pages (10-point font) including figures without incurring additional page charges. Only original papers that have not been published or submitted for publication elsewhere can be submitted. All papers must include title, complete contact information for all authors and abstract. Accepted papers will be published in the Proceedings of IWCMC 2010, which will be included in the ACM/IEEE Digital Library (pending approval). Selected papers from the conference will be

further considered for possible publication in two special issues of the Wiley Journal of "Wireless Communications and Mobile Computing (WCMC)," and "International Journal of Autonomous and Adaptive Communications Systems (IJAACS)". There will also be a best paper award.

Standard IEEE Conferences templates for Microsoft Word or LaTeX formats can be found at:  
<http://www.ieee.org/web/publications/pubservices/confpub/AuthorTools/conferenceTemplates.html>

## **IMPORTANT DATES**

<b>Paper Submission</b>	<b>December 15, 2009</b>
<b>Paper Acceptance Notification</b>	<b>March 15, 2010</b>
<b>Camera-ready Paper Submissions</b>	<b>April 1, 2010</b>
<b>Registration Deadline for Authors</b>	<b>April 1, 2010</b>

## **SYMPOSIUM CO-CHAIRS**

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