

# **The First International Workshop on Green Cognitive Communications and Computing Networks (GCCCN2014)**

**Apr. 27<sup>th</sup>-May 2<sup>nd</sup>, 2014 – Toronto, Canada**

**Workshop of IEEE INFOCOM 2014**

## **Call for Papers**

Cognitive principles have been applied in communications and computing networks to improve the transmission efficiency. In the case of wireless networks, the topics are commonly called cognitive radio networks in recent years, while, in the case of wireline networks, the topics could be called cognitive wireline networks. In the case of computing systems, the relevant topics could be called cognitive computing. However, higher spectrum efficiency is usually achieved at the expense of higher energy consumption. In recent years, energy and power efficient designs of communication and computing networks have become more crucial because of the steadily rising energy cost and environmental concerns. Thus, there is an urgent need to address the energy efficiency in such networks. On the other hand, cognitive principles have the potential to improve other aspects of Green IT, such as electromagnetic pollution mitigation, resource and materials reusing, and creating human friendly environments.

The first Workshop on Green Cognitive Communications and Computing Networks (GCCCN) is to be held in Toronto, Canada, as a part of IEEE INFOCOM 2014. The purpose of this workshop is to bring together a group of technology researchers from both academia and industry to explore how we can make the computing and communications networks more energy efficient. We seek high quality unpublished research papers on recent advances on the energy efficient design of cognitive communications and computing networks. A number of specific topics of this workshop can be expected, including but not limited to the following:

- Architecture design and system implementation for green cognitive networks
- Green cognitive programming languages, and applications
- Energy efficient design for cloud computing
- Energy efficient design for smart grid computing
- Energy efficient design for cognitive communication networks
- Energy-efficient spectrum sensing techniques for cognitive networks.
- Economic models and game theory for green cognitive networks
- Energy-efficient hardware design for communication and computing networks
- Energy-efficient medium access control (MAC) for cognitive networks
- Energy-efficient software design for communication and computing networks
- Cross-layer optimization for green cognitive networks
- Cooperative techniques for green cognitive networks
- Energy-efficient resource management for cognitive networks
- Signal processing challenges for green cognitive networks
- Energy-efficiency evaluation and measuring techniques for cognitive networks.
- Energy-efficient multimedia service provisioning in cognitive networks.

**All accepted papers will be included in the IEEE Xplore and EI indexed.**

## **Submission Guidelines**

GCCCN 2014 seeks original contributions on recent advances on the energy efficient design of cognitive communications and computing networks. The submitted papers should be original, not published or currently under review for publications in any other journal or conference. The papers should be no longer than 6 single spaced double-column pages, and follow the IEEE format. Papers should be submitted through EDAS System. The EDAS link for the paper submission of this workshop is <https://edas.info/newPaper.php?c=16159>. For more details, please review the instructions at INFOCOM websites.

## **Important Dates**

Paper Submission: December 7th, 2013, 11:59 PM PST

Notification of acceptance: January 20th, 2014, 11:59 PM PST

Camera-Ready due: February 14th, 2014, 11:59 PM PST

## **Program Committees**

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