15-18 August 2012, Beijing, China

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IEEE ICCC 2012 Workshop on Smart and Green Communications & Networks (SGCNet)

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Important Dates

Paper Submission:	28 ~~14~~ May 2012
Acc. Notification:	15 Jun 2012
Camera-Ready:	30 Jun 2012
Workshop:	15 Aug 2012

Technically supported by Technical Subcommittee on Green Communications and Computing

Call for Papers

Energy consumption and electromagnetic pollution are societal and economic challenges of prime importance that developed countries have to tackle. The evolution of future communication infrastructures will have to consider both the aforementioned factors. Since 2006, data traffic on wireless networks has grown by approximately 400% and is expected to continue to increase rapidly in the coming years. The widespread use of complex, spectrum efficient techniques to support such high data volumes, the demand for higher data rates and the ever-increasing number of wireless users translate to rapidly rising power consumption. Currently consuming 3% of the energy and causing 2% of the CO2 emissions globally, the ICT industries are facing an increase in associated energy consumption of 16-20% per year. Furthermore, the energy costs for mobile operators can be as high as half of their annual operating budgets. The foregoing considerations highlight the urgent need for designing smart and green communications and networks.

This workshop will bring together academic and industrial researchers to identify and discuss technical challenges and recent results related to design of smart and green communications and networks. Topics of interest include but are not limited to the following:

- Downlink and uplink PHY/MAC design for energy efficient networks
- Metrics, fundamental limits, and trade-offs involving energy efficiency
- Energy efficiency of different network deployment strategies
- Energy-efficient base station architectures and networking
- Energy-efficiency in home and enterprise networking
- Interference analysis, alignment, avoidance, and coordination
- Green back-haul networks
- Green cognitive communications and networks
- Power control and power saving mechanisms
- Small cell networks
- Cooperative radio communications for green and smart environments
- Information theory on energy efficiency
- Self organizing networks and issues in self maintenance and self install
- Energy efficient circuit and system design
- Resource allocation techniques
- Domestic Energy Management
- Interaction of wireless networks with smart grids and power management
- Test-bed, experimental results, and hardware prototypes
- Regulation and standardization
- Application of green communications and networks

Feature keynote addresses by **Dr. Chih-Lin I** (CMCC Green Innovation Center), **Prof. Rod Tucker** (The University of Melbourne), and **Prof. Zhisheng Niu** (Tsinghua University). Panel discussion chaired by **Dr. Shugong Xu** (Huawei).

The workshop accepts only novel, previously unpublished papers. Prospective authors are encouraged to submit a 5-page standard IEEE conference style paper to this workshop (including all text, figures, and references) through EDAS submission system (http://www.edas.info/N12395). One additional page may be allowed but with additional publication fee. Accepted papers must be presented at the workshop. The presenter must register for the workshop before the deadline for author registration. Failure to register before the deadline will result in automatic withdrawal of the paper from the workshop proceedings and the program. All papers selected for publication will be included in the IEEE ICCC proceedings and IEEE digital library.

Website: http://ccf.ee.ntu.edu.tw/~smcheng/SGCNet2012/