

Full-Day Workshop on W-GREEN
Sunday 26th September 2010 - Istanbul, Turkey
(in conjunction with PIMRC 2010)



**The 'Key' to Next Generation of Mobile
Radio Access and Networks Technologies**

Workshop Organisers

Professor Rahim Tafazolli (Chair)
CCSR, University of Surrey

Professor Merouane Debbah (TPC Chair)
Supelec, Alcatel-Lucent Chair on Flexible Radio

Professor Matti Latva-aho (TPC Chair)
CWC, University of Oulu

Dr Laurent Herval
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Technical Program Committee

Anna Pantelidou - CWC Oulu, Finland

Emilio Calvanese Strinati - CEA-LETI, France

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Alberto Conte - Alcatel Lucent, France

Ian Oppermann - CSIRO, Australia

Lars Rasmussen - KTH, Sweden

Behnaam Aazhang - Rice University, USA

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Allen McKenzie - Virginia Tech, USA

Vinod Kumar - Alcatel-Lucent, France

Marios Kountouris - Supelec, France

Vincent Poor - Princeton, USA

Doron Ezri - Green Wireless, Israel

Shugong Xu - Huawei, China

Tony Quek - Institute for Infocomm Research,
Singapore

Important Dates

Paper Submission: 16th April 2010

Acceptance Notification: 17th May 2010

Camera-Ready: 18th June 2010

Workshop: 26th September 2010

Call for Papers

The transmitted data volume increases approximately by a factor of 10 every 5 years, corresponding to an increase of the associated energy consumption by approximately 16 – 20 % per year. Currently, 3 % of the world-wide energy is consumed by the ICT sector contributing to about 2 % of the world-wide CO₂ emissions (comparable to the world-wide CO₂ emissions by airline industry or one quarter of the world-wide CO₂ emissions by cars). Doubling of energy consumptions every 5 years imposes serious concerns for the environment. On the other hand, 10 folds increase in 5 years in data volume does not linearly translate to revenue and the cost of network operation has now become a critical factor for mobile and wireless networks operations. Therefore, lowering energy consumption of future wireless radio systems is demanding greater attention and requires new technologies and solutions and is becoming an important factor in specification of future standards, an important differentiating factor in choice of new products.

These needs create inter-disciplinary research challenges including semiconductor technology, hardware, network architectures and equipments, protocols, services, radio transmission schemes, network management and deployment/operation. All aiming at higher efficiencies at transmit power and consumed energy.

The second International Workshop on Green Wireless (W-GREEN), organized with the support of the Expert Group of the e-Mobility European Technology Platform (www.emobility.eu.org/ <<http://www.emobility.eu.org/>>), will focus on the inter-disciplinary research challenges associated with all aspects of mobile and wireless networks and systems.

The full day workshop aims to bring together internationally-leading academics and industrial perspectives and thinking to highlight the key technologies and solutions and also debate on appropriate metric for measuring end-to-end system energy efficiency itself and fundamental limits of energy efficiencies.

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

- Holistic view of energy consumption in wireless communications
- Architectures and design of low power equipments (sensors, terminals, network infrastructure)
- Cognitive and opportunistic networks (spectrum sharing models, etc.)
- Cooperative networks
- Reconfigurable networks (geographic routing, admission control, handover, etc.)
- Cross layer and interference pollution (advanced adaptive mechanisms, MAC, scheduling, power control)
- Traffic engineering
- Network load balance and smart information storage in distributed networks

<http://edas.info/N8882>