CFP – SGCom 2012
"The Smart Grid: Telecommunication and Power distribution synergy".

1st International Workshop on Communication Technologies support to the Smart Grid.
Held in conjunction with

The 2012 International Conference on Computing, Networking and Communication (ICNC 2012). January 30-February 2, 2011, Maui, Hawaii, USA.
Submission deadline: July 31, 2011.

The Smart Grid is the next generation of the power grid where the behavior and actions of all parties connected are integrated in order to deliver electrical supplies in an effective, sustainable (economical and environmental), reliable and secure way. The Smart Grid concept is grounded on flows of information that will enable Advanced Metering Infrastructure (AMI), Demand-Response (DR), Wide-Area Situational Awareness (WASA), Distributed Energy Resources (DER), and Distribution Grid Management among other services. This workshop focuses on the communication challenges and requirements for the Smart Grid as well as the solutions to them, with the aim to exchange novel ideas on communication networks for the Smart Grid, explore enabling communication technologies, discuss innovative network designs, and share trial experiences. The workshop subjects of interest include (but are not limited to) the following topics:

- Generic communication issues for the Smart Grid:
  - Physical and MAC layer technologies and protocols (i.e., IEEE 802.15, Zigbee, PLC, etc.).
  - FAN, HAN, NAN and BAN architecture issues.
  - Interference assessment and mitigation.
  - Capacity planning and resource allocation.
  - Modeling and performance analysis.
  - Cross-layer optimization.
  - Congestion and admission control.
  - Multi-hop communication and mesh networking.
  - Security and privacy.
- Enabling communication technologies for Advanced Metering Infrastructure (AMI):
  - Resource and service discovery.
  - Data handling -storage and sharing.
  - Security and privacy for Smart Grid. AMI requirements and implications.
  - Service-oriented protocols for AMI.
  - Cognitive technologies support for AMI.
- Enabling communication technologies for Demand-Response (DR) and Distributed Energy Resources (DER):
  - Data handling -storage and sharing.
  - Security requirements and implications.
  - Intelligent status monitoring protocols in Smart Grid.
  - Multicast and secure multicast for Smart Grid.
  - Design paradigm for distributed control under communication constraints.
  - Service-oriented protocols for DR and DER.
  - Cognitive technologies support for DR and DER.
- Enabling communication technologies for Wide-Area Situational Awareness (WASA) (e.g., fault-detection and localization, sensing, etc.)
  - Reliable self-healing networking or fault tolerant for Smart Grid.
  - Intelligent status monitoring protocols in Smart Grid.
  - Quality of service, latency and reliability in Smart Grid.
  - Service-oriented protocols for WASA.
  - Cognitive technologies support for WASA.
- Other:
  - Lightweight IP networking stacks.
  - Interoperation challenges and solutions.
  - Energy-efficient communication protocols for Smart Grid infrastructures.
  - Information exchange and data structures (e.g. 61970, 61968, CIM, 61850, etc.).
  - Smart Grid Standardization and Regulation.
  - Enabling communication technologies for plug-in hybrid electric vehicle (PHEV) systems and networks.
  - Field trials.

Important dates:

Workshop Paper Submission	July 31, 2011
Workshop Paper Acceptance	Sept. 30, 2011
Workshop Camera-Ready Paper:	Oct. 20, 2011

History of the Workshop:

This is the first time that this *Workshop on "Communication Technologies support to the Smart Grid"* is proposed in an ICNC conference.
This topic has been considered for inclusion in this edition due to the high interest, not only in research institutions but also in industry around the world, which makes this topic a very suitable for a Workshop within ICNC 2012.