1st IFIP/IEEE International Workshop on Management of Smart Grids

http://smartgrid.intec.ugent.be

Full day workshop
April 23, 2010

Osaka International Convention Center, Osaka, Japan
Collocated with: 12th IEEE/IFIP Network Operations and Management Symposium (NOMS 2010)

In light of current worldwide efforts to (i) increase energy efficiency, (ii) increase usage of renewable energy sources, and (iii) reduce CO_2 emissions, current electricity networks face many challenges stemming from an increasing demand for electrical energy and increasingly variable and distributed production (e.g. caused by renewable sources). Hence, an evolution to so-called Smart Grids is inevitable. The Smart Grid consists in overlaying the power delivery system with an ICT layer that allows a utility provider and its consumers to constantly monitor and adjust electricity use.
Worldwide science foundations and governments currently support the development and planned deployment of Smart Grids. However, many interesting research questions still need to be answered.
A number of focus domains are distinguished: (i) smart metering: monitoring and customer involvement in energy usage, (ii) demand side and demand response management and real time pricing, (iii) a Home Energy controlling box (Internet box like), (iv) ICT readiness for "Mobile Electricity Consumers" (e.g. pluggable hybrid electrical vehicles, PHEV), (v) efficient management of energy sources (conventional such power plants and green such as wind/solar as well as excess power generated by the customers and sold to providers), and (vi) management of transmission networks and distribution networks (including the main grid as well as micro grids such as municipal or regional grids).
The workshop addresses the mentioned focal points, and targets the definition of the required underlying ICT architectures, monitoring and management technologies for smart energy grids. In addition, results from socio-technical studies are solicited to provide insight in the user interactions and behavioral response to the envisaged systems, together with business modeling studies to propose the market models enabled/driven by smart energy ICT.

Topics of interest for this workshop include, but are not limited, to the following:

- Efficient monitoring of Smart Grids
- Application of network management technology for efficient Smart Grid management
- Software architectures for managing Smart Grids
- Energy consumption profiling automation
- Energy production scheduling
- Smart Grid dimensioning
- Smart Grid reliability and robustness
- Results from socio-technical studies
- Business modeling and techno-economical studies to propose Smart Grid market models
- Management of Plugin Hybrid Electric Vehicles
- Home energy management

Results from initial proof-of-concept demonstrations are also welcomed.

WORKSHOP ORGANIZERS:
Raouf Boutaba, University of Waterloo, Canada
Jürgen Schönwälder, Jacobs University, Germany
Filip De Turck, Ghent University-IBBT, Belgium

PAPER SUBMISSION
Authors are invited to submit original contributions in PDF format through the JEMS system at https://jems.sbc.org.br/smartgrid2010
We are seeking submissions for full papers (max. 8 pages on 2-column IEEE style) and short papers presenting position statements or preliminary results on relevant work (up to 4 pages on 2-column IEEE style). All accepted papers will be published in IEEEXplore.
Please use the stylesheet templates provided by IEEE, standard IEEE Transactions templates for Microsoft Word or LaTeX formats found at http://www.ieee.org/web/publications/authors/transjnl/index.html

IMPORTANT DATES:
- Paper registration: January 4, 2010 (firm deadline)
- Paper upload due: January 11, 2010
- Notification of acceptance: February 8, 2010
- Final camera-ready papers due: February 19, 2010
- Workshop date: April 23, 2010