



IEEE International Conference on Smart Energy Grid Engineering (SEGE '13)

August 28-30, 2013

UOIT, Oshawa, Canada






Sponsored by: IEEE

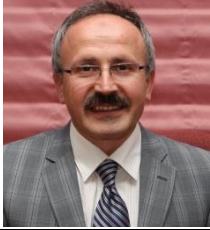


General Chair: Dr. Hossam A. Gabbar, UOIT, Canada





Technical Program Chair: Dr. Mohammed Safiuddin, University at
Buffalo, USA

Keynote Speakers



<p>Mr. Ken Nakahara, Smart Grid and Network Policy, Ontario Ministry of Energy, Canada</p>	<p>Integrating Renewable Generation: Ontario's Smart Grid Approach</p>	
<p>Dr. Peter D. Lund, Aalto University, Finland</p>	<p>Leapfrogging Energy System Flexibility for Integrating High Shares of Renewable Electricity</p>	
<p>Dr. Adel Sharaf, Sharaf Energy Systems Inc., Canada</p>	<p>Soft Computing FACTS-Control Of Smart Grid And Renewable Energy Schemes</p>	
<p>Dr. Hossam A.Gabbar, Faculty of Energy Systems and Nuclear Science, University of Ontario Institute of Technology, Canada</p>	<p>High Performance Smart Energy Grids and Micro Grids with Energy Conservation Strategies</p>	
<p>Dr. Marc Rosen, Faculty of Engineering and Applied Science, University of Ontario Institute of Technology, Canada</p>	<p>Sustainable Smart Energy Grids for Communities</p>	

<p>Dr. Ibrahim Dincer, Faculty of Engineering and Applied Science, University of Ontario Institute of Technology, Canada</p>	<p>Smart Energy Production, Conversion, and Utilization</p>	
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Invited Speakers

<p>Dr. Martin Ordonez, UBC, Canada</p>	<p>Building Scale Smart Energy Systems - A Modern Powering and Loading Infrastructure</p>	
<p>Cara Clairman, President and CEO, Plug'nDrive</p>	<p>Electrifying Transportation: Driving our Clean Energy Future</p>	
<p>William J. Miller, President, MaCT USA</p>	<p>XMPP, Big Data and the Smart Grid</p>	
<p>John O'Neill, Senior Project Manager, Energy & Utilities CSA Group</p>	<p>CSA Standards</p>	

Tutorial Speakers

<p>Dr. M. M. Eissa, Helwan University,</p>	<p>Smart Grid Frequency Monitoring Network Architecture and Application</p>	 A portrait of Dr. M. M. Eissa, a man with a mustache and glasses, wearing a dark suit, white shirt, and striped tie. He is set against a purple background.
<p>Dr. Amir Hajimiragha, General Electric Digital Energy, Canada</p>	<p>Microgrids Operation and Control Based on Smart Grid Technologies</p>	 A portrait of Dr. Amir Hajimiragha, a man with dark hair, wearing a light-colored plaid shirt. He is set against a white background.

Topics

The Smart Energy Grids are energy networks that promise to enhance the operational efficiency of nationwide energy and power supply via distributed generation with bi-directional energy and electricity flow. This objective is achieved by allowing intelligent monitoring and control of different components within the distribution and transmission lines as well as other systems from utilities of natural gas, thermal, electricity, and water on one side to the end user on the other side, while maintain the energy and power quality, security, reliability and safety with minimum environmental impacts. Governments around the world are investing heavily in this technology to ensure optimum energy use and supply, enable better planning for outage responses and recovery, and facilitate the integration of heterogeneous technologies around the grid, such as renewable energy systems, electrical vehicle networks, and smart homes. Smart Energy Grids present enormous engineering challenges in the design and integration of energy and electrical grids with communication and network technologies, along with substantial questions around required security and privacy of different components within the grid. The SEGE'13 conference aims at providing an opportunity to discuss various engineering challenges of smart energy grid design and operation, by focusing on advanced methods and practices for designing different components and their integration within the grid, and to provide a forum for researchers from academia and professionals from industry, as well as government regulators, to tackle these challenges and to discuss and exchange knowledge and best practices about design and implementation of Smart Energy Grid.

Topics of interest include (but not limited to) the following:

- Grid infrastructures design, planning, operation and management
- Thermal networks, storage, import / export, control, optimization, and applications
- Hydrogen and natural gas networks, production and supply chain, integration
- Power generation systems design and applications
- Sensors, communications and network
- Grid modeling, simulation, and data management
- Energy efficiency, conservation, and savings
- Plug-in Hybrid Electric Vehicle (PHEV) systems, CNG Vehicles, clean transportation
- Grid protection, reliability, energy / power quality and maintenance
- Smart metering, measurement, instrumentation, and control
- Information, security and privacy
- Transmission & distribution lines, and infrastructures
- Renewable energy, wind, solar, fuel cells and distributed generation within microgrids
- Computational intelligence and optimization
- Smart homes, cities, communities
- Life cycle assessment, pricing, policies, and energy planning
- Standardization and interoperability
- Smart energy grid education

Important Dates

Abstract & Paper Submission Dates:

- Abstract Submission: 15 March 2013
- First Notification: 29 March 2013
- Full Paper Submission: 25 April 2013
- Acceptance Notice: 15 May 2013
- Camera-Ready Due: 15 June 2013
- Conference Dates: 28-30 August 2013

Organizing Student Team

Jason Runge, UOIT

Daniel Bondarenko, UOIT

Technical Program Committee

Youssef Abdel-Magid, The Petroleum Institute, UAE

Prasanta Ghosh, Syracuse University, US

Ram Achar, Carleton U, Canada

Ilhami Colak, Gazi University, Turkey

Richard Ford, Toronto Hydro, Canada

Rupp Carriveau, U of Windsor, Canada

Claudio Cañizares, U of Waterloo, Canada

Abdelazeem Abdallah, UOIT, Canada

Ramadan Elmoudi, Univ. at Buffalo, US

Xiang Chen, U of Windsor, Canada

Yoshiyuki Yamashita, Tokyo U. of Agriculture and Tech., Japan

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Xavier Fernando, Ryerson U, Canada

Santiago Grijalva, Georgia Institute of Technology, USA

Thomas Kunz, Carleton U, Canada

Yunxin (Jeff) Li, NICTA, Australia

Peter Lund, Aalto University, Finland

Moustafa Mohamed Eissa, Helwan U, Egypt

Jordan Morelli, Queen's U, Canada

Farayi Musharavati, Qatar University, Qatar

Michel Nakhla, Carleton U, Canada

Amit Narayan, Stanford U., USA

Greg Naterer, MUN, Canada

Issarachai Ngamroo, KMITL, Thailand

Hassan Noura, UAEU, UAE

Peter Palensky, Austrian Institute of Technology, Austria

Sarbast Rasheed, UOIT, Canada

Yaser Qudaih, Kyushu Institute of Technology, Japan

Bale Reddy, UOIT, Canada

Magdy Salama, U of Waterloo, Canada

Adel M Sharaf, Sharaf Energy Inc., Canada

Marc St-Hilaire, Carleton U, Canada

Kemal Tepe, U of Windsor, Canada

Kevin Whitehead, Whitby Hydro Energy Services Corporation, Canada

Michael Wetter, Lawrence Berkeley National Laboratory, USA

Bing-Fei Wu, National Chiao Tung University, Taiwan

Mohamed Youssef, UOIT, Canada

Student Innovation Competition

Student innovation competition will be organized during the conference. Please contact Dr. Hossam A. Gabbar (Hossam.gabbar@uoit.ca) further information and submission.