

Annual General Meeting

Monday, October 5, 2015

Hilton Markham Suites 8500 Warden Ave, Markham, ON L6G 1A5

Meeting Room: Markham Ballroom A/B (first floor) *Note room change*

This event marks the fifth and final annual general meeting of the NSERC Smart Microgrid Network (NSMG-Net), a multi-disciplinary research program that, in partnership with government and industry, is developing, testing and verifying the fundamental technologies and regulations required for Canada's future Smart Grid. The meeting will highlight the Network's achievements after five years of research, and identify next steps for microgrid research and development in Canada.

Program

CONTINENTAL BREAKFAST (8.00-8.30)

8.30 **Welcome & Introductions** – Hassan Farhangi, Scientific Director, NSMG-Net

8.45 **Keynote Speakers – Perspectives on Microgrid Development**

Chris Marnay, *Lawrence Berkeley National Laboratory: "Microgrids Before and After Fukushima- Sandy"*

Edward Arlitt, *Independent Electricity System Operator (IESO): "Microgrids in Context"*

BREAK (10.00-10.15)

10.15 **Theme Overviews – Research Highlights from NSMG-Net**

Theme 1: Microgrid Operation and Control (**Reza Iravani**, U Toronto)

Theme 2: Smart Microgrid Planning, Optimization and Regulatory Issues (**Geza Joos**, McGill)

Theme 3: Intelligent Microgrid Communication & Information Technologies (**Julian Meng**, UNB)

11.30 **Project 2.5 Update:** Microgrid Design Guidelines and Use Cases (**Khalil El Arroudi and Diego Mascarella**, McGill)

11:45 **Project 2.6 Update:** BCIT Microgrid Demonstration Project (**Hassan Farhangi and Geza Joos**)

LUNCH (12.00-13.00) + Group Photo

13.00 Five Minute Grad Student 'Elevator Pitches'

Project 1.1	Fahimeh Kazempour: A Robust Hierarchical Control Structure for Virtual Power Plants
Project 1.2	Sheriff Helmy: Supervisory Control and Management System for an off-grid Microgrid under High Depth of Penetration of Renewables
Project 1.3	Pengfei Gao: Open Loop Synchronization of Micro-grids
Project 1.4	Michael Ross: Hierarchical Microgrid Control to facilitate Renewable Generation Integration
Project 2.1	Mike Quashie: Optimal Planning of Advanced Microgrids with an Energy Management System
Project 2.2	Gail Hayhoe: The Impacts of Solar-PV Units in a Microgrid
Project 2.3	Mostafa Farrokhbadi: Frequency Regulation in Isolated Microgrids Through Load Voltage Regulation
Project 3.1	James Oyedapo (PDF): Characterization of the Wireless Channel & Its Applications
Project 3.2	Gowdemy Rajalingham: QoS-aware Routing in Microgrid Communications Networks
Project 3.3	Gift Owuro: Distribution Automation Communications: Sensors, Condition Monitoring and Fault Detection
Project 3.4	Moein Manbachi: Co-Simulation Platform for Smart Grid Adaptive Volt-VAR Optimization of Distribution Networks

BREAK (3.00-3.15)

15.15 Panel Discussion - The Future of MicroGrid Research in Canada: Next Steps

Moderator: Chris Marnay - *Lawrence Berkeley National Laboratory*

Richard Wunderlich, Siemens

TBA, Hydro One

Eric Deschenes, Schneider

Jean Lessard, Hydro-Québec

Lisa Dignard, NRCan-CanmetEnergy

16.15 Summary and Closing Remarks – Hassan Farhangi

16:30 Adjourn

17.30 SmartGrid Canada Reception at GE Grid IQ Centre (to 19.00)

(650 Markland St, Markham, ON; transportation from hotel provided by SmartGrid Canada)

