



Preliminary Agenda

TUESDAY, SEPTEMBER 5th

REGISTRATION & BREAKFAST LE WESTIN MONTREAL, 270 RUE SAINT-ANTOINE O

7:30 AM - 8:30 AM — Breakfast

TRAININGS

8:30 AM - 10:15 AM	—	TRAINING	TRAINING	TRAINING
		Bringing Your Model Into Real Time	The Behind-The-Scenes of Inter-FPGA Communication Using High Speed Serial Links	Using HYPERSIM Advanced Features - Part I
10:15 AM - 10:35 AM	—	BREAK		
10:35 AM - 12:00 PM	—	TRAINING	TRAINING	TRAINING
		Achieving Test Automation With eMEGASIM	How to Use State Space Nodal Efficiently	Using HYPERSIM Advanced Features - Part II
12:00 PM - 1:00 PM	—	LUNCH		
1:00 PM - 2:45 PM	—	TRAINING	TRAINING	TRAINING
		Large Grid Model Import Made Easy	A New Way of Interacting with Your RT-LAB Model	Power System Protection, Control and Monitoring Applications - Part I
2:45 PM - 3:05 PM	—	BREAK		
3:05 PM - 4:30 PM	—	TRAINING	TRAINING	TRAINING
		ePHASORSIM: User Defined Modeling	Integrating your Controller with our Multi-Level Modular Converter (MMC)	Power System Protection, Control and Monitoring Applications - Part II

REGISTRATION

4:00 PM - 6:00 PM — Registration period

WELCOME COCKTAIL

SALLE DE BAL WESTIN

6:00 AM - 10:00 AM —  **WELCOME COCKTAIL**
Evening sponsored by



If you haven't reserved your room at Le Westin Montreal yet, do so now and take advantage of our group rate!

WEDNESDAY, SEPTEMBER 6th



REGISTRATION & BREAKFAST LE WESTIN MONTREAL, 270 RUE SAINT-ANTOINE O

7:15 AM - 8:30 AM — Breakfast

PRESENTATIONS

8:30 AM - 9:15 AM — Welcome to RT17!

9:15 AM - 10:40 AM — Power Systems Keynote by Étienne Leduc, OPAL-RT
INCLUDING SPECIAL PRESENTATIONS:
 Global Trends on Microgrids, Smart Grid, and Distributed Generated by Sima Seidi, TetraTech, Canada

10:40 AM - 11:10 AM — **BREAK**

11:10 AM - 12:00 PM — Digital Transformation - Disrupt or Be Disrupted! by Denis Gaudreault, INTEL, Canada

12:00 PM - 1:00 PM — **LUNCH**

TECHNICAL PRESENTATIONS

	TRACK 1 - MICROGRID	TRACK 2 - LARGE POWER SYSTEMS	TRACK 3 - POWER ELECTRONICS & ELECTRIC DRIVES
1:00 PM - 1:30 PM	Power Flow Control in Grid Connected Microgrid: Software-in-loop Implementation Using RT-LAB by Mahendra Rane, VJTI, India	HQ Experiences in Case of Using Control System Replica Interfaced With HYPERSIM Real-Time Simulator in Recent HVDC Upgrade Projects by Alpha Oumar Barry, IREQ, Canada	A New Switched-DC Cascades Multilevel Inverter for Distributed DC Sources by Cristopher Luciano, Tuskegee University, USA
1:30 PM - 2:00 PM	Real-Time Simulation of Predictive Control of DC Vehicular Microgrids by Ali Mehrizi-Sani, Washington State University, USA	HIL-Grid Model on OPAL-RT for Testing Future Grid Control Centers by Eric Glende, OVGU University Magdeburg, Germany	High-Fidelity Power Motor Emulator for Testing Inverter and Control by Danielle Nasrallah, OPAL-RT TECHNOLOGIES, Canada
2:00 PM - 2:30 PM	Real-Time Co-Simulation for Microgrids With OPAL-RT by Quoc Tuan Tran, CEA-INES, France	The Use of Real-Time Simulation to De-risk and Manage HVDC and FACTS Schemes - Experiences on the French Transmission Grid by César Martin, RTE, France	Real-Time Control of Induction Motor with Rapid Control Prototyping using RT-LAB Software, by Mansour Bechar, University Bechar, Algeria
2:30 PM - 3:00 PM	Real-Time Hardware-in-the-Loop Co-Simulation Platform for Microgrid Analysis by Martine Chlela, McGill University, Canada	New Travelling Wave Fault Location at SEL and the Need for Advanced HIL Solutions, by Dr. Bogdan Kasztenny, SEL Inc., Canada	Design and Implementation of a Modular Multilevel Converter Supported by HIL Simulation by Frédéric Colas, L2EP Ensam, France
3:00 PM - 3:30 PM	BREAK		
3:30 PM - 4:00 PM	HIL Implementation Using RT-LAB and dSPACE for Dynamic Phasor Based Internal Model Control of Solid State Transformer in Microgrid Integration by Monika Bhagwat, VJTI, India	How to Use Real-Time Simulation for a Better, Modern and Interactive Teaching Experience for Power System by Danielle Nasrallah, OPAL-RT TECHNOLOGIES, Canada	HIL Implementation of Model Predictive Direct Current Control Algorithm for Power Converter Using dSPACE and OPAL-RT by Nikhil Pagar, India
4:00 PM - 4:30 PM	DA-PB Control of SST in Hybrid AC/DC Microgrid With RT-LAB and dSPACE HIL Implementation by Ragini Meshram, VJTI, India	AC Power Systems for Grid Simulation, by Mahesh Thaker, Ammetek Programmable Power, USA	Automatic Verification Test Bench for MV Drives Based on "HIL" Simulation by Alain Dutrey, Schneider Electric, France
4:30 PM - 5:00 PM	Shared Power System Models: Accelerating Microgrid Testing and Integration by Christopher Smith, MIT-LL, USA		OPAL-RT Simulators in ABB MV Drives: Overview of Usage and Latest Developments by Mathieu Giroux, ABB, Switzerland

COCKTAIL AND DINNER SALLE DE BAL WESTIN

5:30 PM - 6:00 PM — **RECEPTION COCKTAIL**

6:00 PM - 10:00 PM — **AWARDS GALA DINNER** **NATIONAL INSTRUMENTS**
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THURSDAY, SEPTEMBER 7th



BREAKFAST LE WESTIN MONTREAL, 270 RUE SAINT-ANTOINE O

7:15 AM - 8:30 AM — Breakfast

PRESENTATIONS

8:30 AM - 9:00 AM — A New Era of Real-Time Simulation at OPAL-RT Technologies

9:00 AM - 10:00 AM — Power Electronics and Power-Hardware-in-the-Loop Keynote by Christophe Brayet, OPAL-RT

10:00 AM - 10:30 AM — Innovating in a IoT, IoP World by Greg Farthing, ABB, Canada

10:30 AM - 11:00 AM — **BREAK**

11:00 AM - 11:30 AM — Automotive Keynote by Herve Pollart, OPAL-RT

11:30 AM - 12:00 PM — Aerospace & Defense Keynote by Alexandre Leboeuf, OPAL-RT

12:00 PM - 1:00 PM — **LUNCH**

TECHNICAL PRESENTATIONS

	TRACK 1 - RENEWABLES	TRACK 2 - POWER-HARDWARE-IN-THE-LOOP	TRACK 3 - AERO, AUTO, MARINE & AUTOMATION
1:00 PM - 1:30 PM	Real-Time and Hardware-in-the-Loop Simulations of Wind Turbine Components With the Onwind@Modelica Library by Paul Feja, Fraunhofer IWES, Germany	Vehicle-Grid Integration HIL for Designing Advanced Ancillary Services for Power Systems by Yutaka Ota, Tokyo City University, Japan	NADIA Human Language System Testing Tool by Sven Diebold, CS Information Systems, Canada
1:30 PM - 2:00 PM	Modeling and Real-Time Simulation of Wind Power Systems Using RT-LAB Platform by Mounir Khat, ENPOran, Algeria	Power-HIL and the KIT Energy Smart Home Lab Environment by Sebastian Hubschneider, Karlsruhe Institute of Technology, Germany	Real-Time Cooperative Localization With Extended and Unscented Kalman Filters for Intelligent Vehicles by Farid Bounini, Université de Sherbrooke, Canada
2:00 PM - 2:30 PM	Transmission Photovoltaic Energy By VSC-HVDC in Real-Time: Application to Algerian – Spanish Power System Interconnection by Leila Ghomri, UMAB University, Algeria	@NREL Using OPAL-RT, by Przemyslaw Koralewicz, NREL, USA	Virtual Test Bench for Marine Controllers by Dr. Mukherjee Suvajit, Rolls-Royce, Singapore
2:30 PM - 3:00 PM	Photovoltaic Grid Connected Quasi Z-Source Inverter Based on Proportional Resonant Controller by Amol Ramelwar, VJTI, India	A Power-Hardware-in-the Loop Test Bench for Electric Machine Emulation by Amitkumar K. S., Concordia University, Canada	Real-Time Application of Proprioceptive Tactile Sensing With Robotic Graspers by Bruno Belzile, McGill University, Canada
3:00 PM - 3:30 PM	BREAK		
3:30 PM - 4:00 PM	Implementation of an Improved Space Vector PWM Control Strategy for Three-Phase Four-Leg Inverter in Wind-PV Hybrid Generation System Using RT-LAB by Monalisa Pattnaik, NIT, India	Status of Energy Lab 2.0 and Overview of PHIL Activities by Jörn Geisbüsch, Karlsruhe Institute of Technology, Germany	A Novel Parallel Robot for Fast Pick-and-Place-Operations by Peyman Karimi Eskandary, McGill University, Canada
3:30 PM - 4:00 PM	Real-Time Control of Doubly Fed Induction Generator by Kader Chaker, SCAMRE Laboratory, ENPOran Algeria	Presentation by CENACE	The Importance of Electrical Fault Insertion in HILS Applications by Bob Stasonis, Pickering, USA
4:00 PM - 4:30 PM		COMING SOON!	Describing the NCREPT Test Facility and Research With Regards to the Dyno and the Associated Driving Schedules by Chris Farnell, University of Arkansas, USA

COCKTAIL AND DINNER TERRACE OF THE PALAIS DES CONGRÈS OF MONTREAL

5:30 PM - 10:00 PM



CLOSING CEREMONY AND OPAL-RT'S 20th ANNIVERSARY CELEBRATION!

Evening sponsored by:



FRIDAY, SEPTEMBER 8th

BREAKFAST

LE WESTIN MONTREAL, 270 RUE SAINT-ANTOINE O

7:30 AM - 8:30 AM — Breakfast

VISITS (GROUP 1)

Pick-up from Le Westin at 8AM

9:00 AM - 10:00 PM — Hydro-Quebec Research Institute (IREQ) Visit – Group I

11:00 AM - 12:00 PM — OPAL-RT Headquarters Visit & Poster Sessions

VISITS (GROUP 2)

Pick-up from Le Westin at 9AM

10:00 AM - 11:00 PM — Hydro-Quebec Research Institute (IREQ) Visit – Group II

12:00PM - 1:00PM — LUNCH

1:00 PM - 3:00 AM — OPAL-RT Headquarters Visit & Poster Sessions

4:30 PM - 6:00 AM — Buses drive out, end of RT17

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