28th MORNING SCHEDULE

RT24
ELECTRIFYING THE WORLD
BEYOND REAL TIME

Keynote : Electrifying the World Beyond Real-Time
08:30 - 09:00 AM
Room : Lowther

Jean Bélanger
President and CTO
Opal-RT Technologies

Keynote : Pairing Wide Area Control and Real-time HiL
Simulation for Zero Carbon Grid Technology
09:00 - 09:30 AM
Room : Lowther

Douglas Wilson
Chief Scientist
GE Vernova

Keynote : Challenges and Opportunities for NESO in Modelling
Power Systems under Clean Power 2030
09:30 - 10:00 AM
Room : Lowther

Yuan Chen
Model Development Manager
NESO

Morning Break: "Take a bite at the Expo"   10:00 - 10:30 AM   Room : Platform 5 Café

Microgrid & DC Grids Room : Lowther	**Protection and Control for Power Systems** Room : Menteith	**Tutorial & Training** Room : Ochil
Using OPAL-RT Simulators for HIL Testing of MicroGrid Solutions - Practical Experience 10:30 - 11:00 AM **Oleg Bagleybter** Senior Staff Engineering Manager GE Vernova	An Innovative Approach to Hardware in Loop Testing for Controlled Auto-Reclosing of Transmission Lines 10:30 - 11:00 AM **Urmil Parikh** Principal Engineer Power Systems and Global Program Manager Controlled Switching Hitachi Energy Sweden AB	**TUTORIAL** Black-start in a highly IBR-penetrated grid 10:30 - 11:30 AM **Douglas Wilson** Chief Scientist GE Vernova
Short-Term Control of Heat Pumps Supporting Power Grid Operation in Multi-Energy Systems. 11:00-11:30 AM **Daniele Carta** Group Leader Energy Systems Engineering Forschungszentrum Jülich GmbH	Use of HiL in Development of Zonal Autonomous Control for Power Systems 11:00-11:30 AM **Sean Norris** Senior innovation application architect GE Vernova	
Advanced Energy Solutions New Solution Development Perspectives 11:30 - 12:00 PM **Bruce Ikenna Efika** Head of Solution Development BP Advanced Energy Solutions	Validation of Substation Automation using Real-time simulator: a Blackstart use case 11:30-12:00 PM **Ngoc Bao Lai** Principal Controls Engineer Fluence Energy GmbH	**TUTORIAL** Simplifying MMC Simulation 11:30-12:30 PM
Combined real-world sites, RCP and P-HiL for interoperable GFMs validation in Microgrid 12:00-12:30 PM **Ron Brandi** Team Leader Fraunhofer IEE	Stability Analysis and Control Design of Sequence-Decomposed Grid-Forming IBRs 12:00-12:30 PM **Qian Liu** Associate Professor University of Warwick	**Wei Li** Team Lead Power Electronics Opal-RT Technologies

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Lunch break with networking and visit of the demo & expo   12:30 - 01:30 PM   Room : Platform 5 Café

28th AFTERNOON SCHEDULE

Power Hardware-in-the-Loop Room : Lowther	Power Electronics Room : Menteith	Tutorial & Training Room : Ochil

Power Hardware-in-the-Loop — Room : Lowther

OPAL-RT Approach for PHIL and Motor Emulator
01:30-02:00 PM

Francois Tempez Sales Director Germany
Timo Roesch Market Development Director Power
Electronic Systems
OPAL-RT Technologies

Flexible Laboratory Setups for Grid-Forming Control: Advances through RCP and P-HiL
02:00-02:30 PM

Jonas Steffen Group Leader
Fraunhofer IEE

On-line Admittance Identification in IBR-Dominated Power Systems via Power Hardware-in-the-Loop
02:30-03:00 PM

Yue Zhu Research Associate
Imperial College London

PHIL Instability Prediction Using Frequency Domain Impedance Analysis and Prediction
03:00-03:30 PM

Frédéric Colas Research Engineer
L2EP/ENSAM

Power Electronics — Room : Menteith

Railway traction system controllers
01:30-02:00 PM

Florent Chabrier Drivetrain Simulation Lead
SNCF Voyageurs

Parallel Topologies and Accuracy with Parasitics in Real Time
02:00-02:30 PM

Martin Butcher Consulting Engineer
GE Power Conversion

Using OPAL-RT Simulators for Rapid Control Prototyping of Finite Control Set-MPC and AI
02:30-03:00 PM

Paul Judge Reader in Power Electronics
Ning Li PhD Student
University of Edinburgh

How to accelerate Power Electronics R&D cycle with PELab and OPAL-RT Real-Time Simulators
03:00-03:30 PM

Mubeen Abbas CEO
TechCore

Tutorial & Training — Room : Ochil

TRAINING #1

HYPERSIM
01:30-03:30 PM

Vithuran Vilvarajah
Team Lead for
Support Europe
Opal-RT Technologies

Afternoon Break: "Tea Time !"   03:30 - 04:00 PM   Room : Platform 5 Café

28th AFTERNOON SCHEDULE

Advances in Real Time Simulation Technology and Techniques Room : Lowther	Power Electronics Room : Menteith	Tutorial & Training Room : Ochil
Digital Power - Simulation Technologies to Accelerate Grid Evolution 04:00-04:30 PM **Ravinder Venugopal** VP, BD and R&D EMEA Opal-RT Technologies	**Success Story** : Development of Digital Twin for New Soft Starter Offer Based on Hardware In the Loop 04:00-04:30 PM **Simon Gervais** R&D Engineer Schneider Electric	**TUTORIAL** Assessing Reliability of Hardware in Loop Test model for Controlled Switching of 400KV Shunt Reactor Compensated Transmission Line 04:00-05:00 PM **Urmil Parikh** Principal Engineer Power Systems and Global Program Manager Controlled Switching Hitachi Energy Sweden AB
Subject TBD 04:30 - 05:00 PM **First Name Last Name** Job title Company	**PHIL for Grid Forming Inverter Testing** 04:30 - 05:00 PM **Sebastian Hubschneider** R&D Engineer Opal-RT Technologies	
Development of a Facility for MW-Scale Electrical Testing, Incorporating PHiL Techniques 05:00-05:30 PM **Max Parker** Senior R&D Engineer, Power Electronics Machines and Drives PNDC University of Strathclyde	**Success Story** : Special Features of OPAL-RT's Power Electronics Solutions to Ease Controller Testing 05:00-05:30 PM **Pierre-Yves Robert** Strategic Technical Manager and Software Architect Opal-RT Technologies	**TUTORIAL** The View of The Smart Inverter Library and Testing 05:00-05:30 PM **Mehrdad Kazemtabrizi** Smart Grid Simulation Specialist OPAL-RT Technologies **Nayeem Ninad** Research Engineer Canmet

OPAL-RT Technologies Dinner	After 07:00 PM

29th MORNING SCHEDULE

Keynote : Grid Analysis Tools for TSOs: Needs and Projection
08:30 - 09:00 AM
Room : Lowther

Jean-Baptiste Heyberger
Architecture and System Director
Super Grid Institute

Keynote : National HVDC Centre-Experiences of Large
Scale Real-Time Simulations, and Future Outlooking GB
09:00 - 09:30 AM
Room : Lowther

Ben Marshall
Technology Manager and Power
System Engineer
The National HVDC Centre

Keynote : Lessons Learnt from 5 years of Operating a PHiL/CHiL
Environment for Power System Studies
09:30 - 10:00 AM
Room : Lowther

Prof. Willem Leterme
University Professor
RWTH Aachen University

Coffee Break	10:00 - 10:30 AM	Room : Platform 5 Café

HVDC, MMC & FACTS Room : Lowther	**Cybersecurity and Digital Twins** Room : Menteith	**Tutorial & Training** Room : Ochil
MTDC Grid Reconfiguration - Sequential Control Principles and First Applications 10:30 - 11:00 AM **Lucas Molina** Barros R&D Engineer SuperGrid Institute	**KEYSIGHT TECHNOLOGIES** Overview of Cybersecurity with OPAL-RT **DIAMOND Sponsor** 10:30 - 11:00 AM **Frank Corry** Technical Marketing Engineer at Keysight **Louis Raymond** Market Development Manager Opal-RT	
Co-simulation Opportunities for Large Area Models with HVDC Replicas 11:00-11:30 AM **Colin Foote** Senior Simulation Engineer The National HVDC Centre	**Key Cybersecurity Research for Energy Systems: Insights from KASTEL Security Lab Energy** 11:00-11:30 AM **Ghada Elbez** Group Leader Karlsruher Institut für Technologie (KIT)	**TRAINING #2** HYPERSIM 10:30-12:30 PM
Real-time simulation for HVDC interoperability first experience with the InterOPERA project 11:30-12:00 AM **Benoit de Foucaud** Electrical Engineer RTE	**TUTORIAL** **Importance of Cybersecurity Simulation** 11:30-12:00 PM **Steffen Vogel** R&D & Software Engineer OPAL-RT Technologies	**Vithuran Vilvarajah** Team Lead for Support Europe Opal-RT Technologies
Subject TBD 12:00-12:30 PM **Agusti Egea Alvarez** Professor **Ning Yang** Research Associate University of Edinburgh / SP Energy Networks	**Design of an adaptive digital twin to increase transparency in power grids** 12:00-12:30 PM **Stephan Ruhe** Research Associate Fraunhofer IOSB-AST	

Lunch break with networking and visit of the demo & expo	12:30 - 01:30 PM	Room : Platform 5 Café

29th AFTERNOON SCHEDULE

RT24
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BEYOND REAL TIME

Inverter Based Energy Resources Room : Lowther	Cybersecurity and Digital Twins Room : Menteith	Tutorial & Training Room : Ochil

Subject TBD
01:30-02:00 PM

Michael Smailes Principle Research Engineer
ORE Catapult

Digital substation HIL co-simulation, challenges and cybersecurity aspects
01:30-02:00 PM

Gergely Dürgő MSc Student
Máté Rózsa PhD Student
Budapest University of Technology and Economics

TUTORIAL

How to make the most out of your eHS / FPGA Simulation?
01:30-03:00 PM

Sebastien Cense
Director of FPGA Simulation
OPAL-RT Technologies

Role of Hardware-in-the-Loop Testing for Fast Deployment of Grid-Forming Converters
02:00-02:30 PM

Sulav Ghimire Power Systems Engineer
Siemens Gamesa

Cyber-Physical Power Systems Digital Simulation and Security Analysis
02:00-02:30 PM

Xin Zhang Professor
University of Sheffield

Power Hardware-in-the-Loop Control for Hybrid Energy Storage Systems
02:30-03:00 PM

Masoome Maroufi PhD Researcher
Karlsruhe Institute of Technology

Seamless Real-Time co-simulation of Power Systems: A Deep Dive into eMEGASIM & ePHASORSIM
02:30-03:00 PM

Shailendra Singh Research Engineer R&T
LIST

Closing Session OPAL-RT
03:00 - 03:30 PM
Room : Lowther

Jean Belanger
President and CTO
Opal-RT Technologies