RT26 KASSEL

RT26 Conference Europe

Programme overview

17-19 November, 2026

Kassel, Germany

Fraunhofer IEE Facilities

5 Keynotes

4 Tutorials

4 Labs

With the valued support of:

SPITZENBERGER SPIES

EGSTON POWER

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OPAL-RT TECHNOLOGIES

TUESDAY, 17 NOVEMBER

- Lab circle tour
- Tutorials

WEDNESDAY, 18 NOVEMBER

- Large loads | Data centers & SST
- MV Drive
- Co-simulation, Cyber-Physical & Digital Twins
- E-Mobility
- Large Scale Transmission Grid Simulation
- Transmission-level PE (HVDC, MMC, STATCOM)
- Grid measurement, identification & control

THURSDAY, 19 NOVEMBER

- Protection Relay Testing & Digital Substations
- Test Benches & PHIL
- Energy Generation & Storage (BESS)
- SPS Software
- SysTec Lab Visit

Tuesday, 17 November 2026

Setup · Tutorials · Lab circle tour

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13:00 - Badge registration

	Conference room Immerwahr 40 pax - 0.103 (GF)	Workshop room Zuse 20 pax · 1.310 (1st Fl.)	Lab Circle tour
	TUTORIALS	TUTORIALS	LAB VISIT
14:00 - 15:30	**Martin Suberski · TU Ilmenau Transfer** From motor emulation to physical validation: De-risking inverter control development with PHIL	**Sebastian Hubschneider · OPAL-RT** PPC testing for Grid-connected BESS applications: Integrating black-box inverter controllers into real-time simulation	**Lab Circle Tour (2 rounds)** Guided tour through the Medium-Voltage and HIL laboratory, the control room Digital Energy and the District Heating Network Lab, showcasing digital twins, Hardware-in-the-Loop testing, grid operation technologies and innovative thermal energy systems
15:30 - Coffee break			
16:00 - 17:30	**Marija Stevic · OPAL-RT** Accelerating data center innovation: Hardware-in-the-Loop testing for solid-state transformers and advanced power electronics	**Steffen Vogel · OPAL-RT** Performing continuous integration testing using the GIT version control systems and RT-LAB	
	WELCOME		
18:00 - 18:30	Caroline Martel · General Manager - OPAL-RT Growing together: OPAL-RT's growth strategy and R&D partnerships in Germany		

18:30 - Welcome cocktail

OPAL-RT TECHNOLOGIES

Wednesday, 18 November 2026

Keynotes · Technical sessions · Industry insights

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08:00 - Coffee & tea | Badge registration

KEYNOTES

08:30 - 09:00	Marco Jung · Fraunhofer IEE - Power electronics dominated grid. Future challenges and trends
09:00 - 09:30	Jay Ramachandran & Mahmoud Elkazaz · NESO - Operating grid towards net zero - Modelling and tool requirements and challenges

LARGE LOADS | DATA CENTERS & SST

09:30 - 10:00	François Tempez · OPAL-RT - HIL validation for data centers

10:00 - Coffee break

	Conference room Schmid-Cramer 80 pax · 0.104/0.105 (GF)	Conference room Immerwahr 40 pax - 0.103 (GF)
	MV DRIVE	**CO-SIMULATION, CYBER-PHYSICAL & DIGITAL TWINS**
10:30 - 11:00	**Dominik Hofmeyer · GE Vernova Berlin** CHIL testing of MV converter controllers for variable speed pumped storage hydro applications	**Artem Kashtanov | João Pedro Scherer Cipriani · Otto-von-Guericke Universität** Real-Time power system testbeds: Automation validation and distributed co-simulation
11:00 - 11:30	**Valerio Salis · ABB Drive** ACS5000 MV drive testing in HIL	**Yuqi Wang · University of Sheffield** Cyber-physical power system simulation: Platform development and cybersecurity analysis
11:30 - 12:00	**Harold Ngueuongodia · GE Vernova Belfort** Real-time simulator platform for medium-voltage power conversion and control systems	**Derk Gonschor · Hochschule Bonn-Rhein-Sieg** Electrical and thermal real-time model of an ANPC photovoltaic inverter for digital twin application

12:00 - Lunch

OPAL-RT TECHNOLOGIES

Wednesday, 18 November 2026

Keynotes · Technical sessions · Networking

RT 26 KASSEL

	Conference room Schmid-Cramer 80 pax · 0.104/0.105 (GF)	Conference room Immerwahr 40 pax - 0.103 (GF)
	E-MOBILITY IN AN ENERGY CONTEXT	LARGE SCALE TRANSMISSION GRID SIMULATION
13:30 - 14:00	**Timo Roesch · OPAL-RT** Next generation BMS HIL testing: how virtualizing chipsets cuts cost while increasing test coverage	**Bernd Schweinshaut · Friedrich-Alexander-Universität (FAU)** From offline to real-time simulation: An automated workflow for the continental european transmission grid
14:00 - 14:30	**Andrey Popov · Keysight Technologies Deutschland** From V2G to virtual power plants: Testing strategies for grid-interactive resources	**Dominik Frauenknecht · Friedrich-Alexander-Universität (FAU)** Integration of inverter-based resources into real-time simulation of the continental european transmission grid
14:30 - 15:00	**Martin Suberski · TU Ilmenau Transfer** From virtual converter to physical grid: FPGA-based PHIL for early-stage grid-interaction testing	**Francisco Gonzalez-Longatt · fglongattLTD | Loughborough University** Bridging simulation and reality: Lessons learned from IEC 61850 and ANSI C37.118 applications in modern power systems
15:00 - Coffee break		
	TRANSMISSION-LEVEL PE (HVDC, MMC, STATCOM)	GRID MEASUREMENT, IDENTIFICATION & CONTROL
15:30 - 16:00	**Moritz Bengler & Ibrahim Elsabrouty · Reinhausen** From OLTCs for transformers to MMC STATCOMs: Accelerating power electronics development through large-scale HIL testing with OPAL-RT	**César García Veloso · École polytechnique fédérale de Lausanne (EPFL)** Advanced dual P+M IEEE/IEC Std. Compliant PMU library for real-time simulation
16:00 - 16:30	**Lorenz Graf · Siemens Energy** DevOps with OPAL-RT simulators: an insight into Siemens Energy's control software release under the CI/CD approach	**Christoph Klie · morEnergy** Spectral grid impedance measurements to dynamic real-time simulation model with morEnergy digital twin technology on OPAL-RT systems
16:30 - 17:00	**Frédéric Colas · Arts et Métiers ParisTech - L2EP** From Hardware-in-the-Loop to prototype: validating a trapezoidal energy-balancing control for an M2DC converter, and passing the method on through real-time simulation training	**Qian Liu · University of Warwick** Enhanced current-limiting control design for grid-forming inverters under asymmetric grid disturbances with HIL validation
18:30 - Get-together dinner		

OPAL-RT TECHNOLOGIES

Thursday, 19 November 2026

Technical sessions · Industry insights · Lab visit

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08:00 - Coffee & tea		
	KEYNOTES	
08:30 - 09:00	Ravinder Venugopal · OPAL-RT - Accelerating innovation - electrical system simulation for the era of big energy	
09:00 - 09:30	Douglas Wilson · GE Vernova - Zonal control with synchrophasors: Unlocking value from distribution system services	
09:30 - 10:00	Pedro Rodriguez · LIST - Grid-forming converters: Concepts, grid-code requirements and validation challenges	
10:00 - Coffee break		
	Conference room Schmid-Cramer 80 pax · 0.104/0.105 (GF)	Conference room Immerwahr 40 pax - 0.103 (GF)
	PROTECTION RELAY TESTING & DIGITAL SUBSTATIONS	TEST BENCHES & PHIL
10:30 - 11:00	**Simon Nagy & Vladyslav Piskarov · Sprecher Automation** Test automation with Hypersim and Python	**Adam Zuga & Florian Hans · Fraunhofer IWES** Integrating multi-physics real-time simulations at test bench level
11:00 - 11:30	**Maté Rozsa · Budapest University of Technology and Economics (BME)** Beyond power system simulation: Real-time cyber-physical testbeds for digital substation IDS evaluation	**Alexis Papandreou · ORE CATAPULT** Converter-level testing for offshore wind turbine powertrains at ORE Catapult: How might we do it?
11:30 - 12:00	**Everton Alves · INESC TEC** Real-time HIL validation of adaptive protection and voltage control for active medium-voltage distribution networks	**Gernot Pammer & Thomas Platzer · AVL List** Real-time power measurement & analysis for HIL applications
12:00 - Lunch		

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	Conference room Schmid-Cramer 80 pax · 0.104/0.105 (GF)	LAB VISIT
	ENERGY GENERATION & STORAGE (BESS)	
13:30 - 14:00	**Pitambar Jankee · Siemens Energy** Closing the loop before VDE-AR-N-4110 certification: CHIL-based validation of BESS controller using OPAL-RT	**13:30 – 15:00** **SysTec lab visit** **Limited seats**
14:00 - 14:30	**Bao Lai · Fluence Energy** Development and validation of utility-scale battery energy storage control and automation systems using real-time simulation	
	SPS SOFTWARE	
14:30 - 15:00	**Louis Raymond · OPAL-RT** SPS (SimPowerSystems, specialized power systems): The situation has evolved.	
15:00 - 15:15	RT26 Conference Europe: closing perspectives	

Please note that the programme is subject to change according to organizational requirements

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