PLECS CONFERENCE 2022

Real-Time Simulation of Power Electronics

September 20 • 8:30 to September 21 • 16:30

Technopark Zurich
Technoparkstrasse 1 • 8005 Zurich • Switzerland
Phone +41 44 533 51 00 • Email info@plexim.com

Conference Agenda

Monday, September 19, 2022

17:30 - 19:30 Reception

8:30	Registration, Welcome Coffee			
9:00	Model Continuity: From Offline Simulation to Real-Time Testing	Dr. Jost Allmeling	Plexim	
9:30	Rapid Control Prototyping for High Speed Traction Drive with the RT Box CE as Real-Time Simulator	DrIng. Roberto Aceiton	Alstom	
10:00	PLECS & RT Box Integration for Manual and Automated Elevator System Testing Environment	Charlie Bourigault	Schindler Elevators	
10:30	Exhibition, Coffee Break			
11:00	Highly Configurable Real-Time HIL Simulator for Power Electronics in Rail and E-Mobility	Erich Scheiben	ABB	
11:30	MMCs Made Compact and Fast	Simon Fuchs	ETH Zürich	
12:00	Utilising RT Boxes To Support the Development of Medium Voltage Modular Multilevel Converters	Prof. Dr. Drazen Dujic	EPFL	
12:30	Lunch			
13:30	Power Hardware-in-the-Loop: A Paradigm Shift	Christian Nagl	EGSTON Power Electronics	
14:00	From Simulation to Real Power, a Seamless Transition?	Dr. Simon Delalay	Imperix	
14:30	Expanding the RT Box with the SFP Interface for Inverter Control and Distributed Sensor Acquisition	Thomas Schulze	GvA Leistungselektronik	
15:00	Exhibition, Coffee Break			
16:00	A Novel Converter Topology for Active Harmonic Filters	Prof. Dr. Marek Galek	Hochschule München	
16:30	Motor-Inverter Development with HIL & Rapid Control Prototyping (RCP)	Prof. Dr. Michael Schueller & Simon Soller	Ostschweizer Fachhochschule	
17:00	Use of RT Boxes and PLECS in the Development of Optimal Control Algorithms for Medium-Voltage Drives	Dr. Mattia Rossi	Tampere University	
17:30	Exhibition			
18:30	Apero			
19:00	Dinner			



Conference Agenda

Wednesday, September 21, 2022 - Conference Day 2 8:00 Welcome Coffee 8:30 Power Converters Control Prof. Dr. Petar J. Grbović University of Innsbruck Development with RT Box and STM32F Control Platform: From Theory to Practice 9:00 Integration of PLECS Circuital Models Prof. Dr. Gianmario Politecnico di Torino into the Open-Source Design Suite Pellegrino syreDrive Perspectives with RT Box for Rapid 9:30 Dr. Thiwanka Wijekoon Huawei Prototyping in Industrial R&D Labs: Case Examples 10:00 Exhibition, Coffee Break 11:00 Development and Operation of a 10kW Klaus Riedmüller & **PULS Vario** AC-DC Converter using RCP and HIL Matthias Wukovits 11:30 Motor Controller Test using Emulated Dr. Laszlo Mathe Bosch Motor and Load Chain 12:00 Development of a Protection Unit Urs Böhme Mercedes-Benz Against an Electric Shock Caused by a Y-Capacitance 12:30 Lunch 13:30 New Concepts in Teaching Power Christopher Ranisch Hochschule Darmstadt Electronic Control Design (Christopher Ranisch, Christian Jakob, Christian Weiner) 14:00 Design and Practical Evaluation of Simon Quergfelder Fraunhofer IISB High Efficiency Three-Phase-Inverters up to 500 kW 14:30 Production Code Generation for a Prof. Michael Hubatka Ostschweizer 50kW AC/AC Converter using the Fachhochschule PLECS Generic Code Generator 15:00 Coffee Break 15:30 PLECS Coder Target Support Dr. Sisi Zhao & Plexim Framework Outlook - Demo: NI PXI Jimmy Oliapuram 16:00 PLECS: Future Prospects Dr. Wolfgang Hammer Plexim



16:30

End of Conference

Organisational Information

Registration Deadline	August 29, 2022	
Conference Language	English	
Type of Event	On-site only, limited number of participants	There will be no virtual replacement for this event.
Venue Address	Technopark Zurich Auditorium, Ground Floor Technoparkstrasse 1 8005 Zurich Switzerland	
Travel and Directions	The venue and all hotels are well connected by public transport. Take the train S16 from the airport to Zürich Hardbrücke (every 30 minutes). The oneway fare is CHF 6.80. From Hardbrücke it takes a 5-10 minutes' walk to the venue and the hotels. Detailed information	Limited parking space is available at Parkhaus Technopark, Parkhaus Pfingstweid, Parkhaus Zürich P-West or Puls 5 Parkgarage. Parking fees at Technopark are approximately CHF 40.00 per day. A taxi ride from the airport to the venue costs approximately CHF 60.00.
Recommendation for Accommodation	Ibis Zurich City West Novotel Zurich City-West 25Hours Hotel Zurich West Renaissance Zurich Tower Hotel	All hotels are in walking distance (2-10 minutes) to the venue.
Organiser	Plexim GmbH Technoparkstrasse 1 8005 Zurich Switzerland	Phone +41 44 533 51 00 Email <u>info@plexim.com</u>
Registration Fee	CHF 560.00 (incl. VAT) or EUR 480.00 (incl. VAT)	Upon registration, an invoice for wire transfer will be sent via email. Payment by credit card is not possible.
Registration Includes	Participation, lunch, snacks and beverages on both conference days, dinner on September 20	
Cancellation Policy	Full amount will be refunded if cancelled by August 29, 2022. After this date or noshow, the participation fee is non-refundable.	If the organizer has to cancel the event, the registration fee will be refunded in full.
COVID-19 and Protection Concept	Due to local regulations a valid COVID certificate might be required. Specific COVID measures may change at any time.	Please visit the <u>website of the Swiss</u> <u>Health Department (BAG)</u> for updates.
General Data Protection Regulation and Disclaimer for Event Photography	We kindly point out that we must store your personal data in our database in order to process your registration. Plexim's privacy policy	Visitors acknowledge that they may be included in photos and videos taken during the event, and agree that these may be used without financial compensation.
Latest Information	Updated information about the PLECS Conference 2022 can be found on our website.	
This Document Has Last Been Updated on	13.09.22	



PLECS Conference 2022

September 20, 8:30 to September 21, 16:30

Registration Form

Company Name	
Billing Address	
Your Order Number	
Attendee Name	O Mr. O Ms.
Attendee Email & Phone	
Reception September 19, 18:00 – 20:00	○ Yes○ No
Dinner September 20,	○ Yes

Register before August 29, 2022

- ▶ Upon receipt of registration confirmation via email you are signed-up for the event. The invoice will be sent via email.
- ▶ The price includes the participation in the conference, as well as the reception on September 19, 18:00 20:00 and the dinner on September 20, 19:00 21:00.
- ▶ The registration fee is 480.00 Euros or 560.00 Swiss Francs (incl. 7.7% VAT) and is payable by wire transfer.
- ▶ Please note that due to local regulations a valid COVID certificate might be required. Also, specific COVID measures can change at any time without notice.