PLECS CONFERENCE 2024 Thermal Modeling and Simulation

March 12 • 8:30 to March 13 • 16:30

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



Conference Agenda

Monday, March 11, 2024

18:00 Two-Hour Reception at the Venue

Tuesday, March 12, 2024 – Conference Day 1 8:30 Registration, Welcome Coffee Plexim 9:00 Keynote Speech Dr. Jost Allmeling 9:15 Data Acquisition and Thermal Min Luo **BASiC Semiconductor** Simulation of SiC Devices Using PLECS 9:45 Fast and Reliable Inverter Temperature Politecnico di Torino Dr. Radu Bojoi Estimation Using PLECS for Automotive E-Drives Subjected to Driving Cycles 10:15 Break Integration of Soft-Switching Losses in 11:00 Dr. Didier Balocco Onsemi **PLECS Models** 11:30 A Fresh Perspective on Foster and Dr. Alexander Weyman Plexim Cauer – Making Better Use of Thermal Models 12:00 Lunch 13:30 Smart Concepts for Highly Heated **Rob Spence** SpenceWave Dynamics Simulations 14:00 Simplifying Power Electronics Design Tomas Krecek Microchip Technology and Development with the 30 kW Vienna PFC PLECS Model 14:30 Thermal of Power Electronics - From Dr. Yi Zhang Aalborg University Fundamental Modeling to Coupling Effects 15:00 Break 16:00 Automated Generation of PLECS Pablo Elosegui Garcia Infineon **Component Models Using Existing** SPICE Descriptions Hochschule Bonn-16:30 Double Pulse Test Bench for **Christian Lottis** Application-Oriented, Highly Automated Rhein-Sieg Parameter Extraction and Model

Generation of Power Semiconductors

Semiconductor Devices - A Practical Approach for Evaluating Thermally-

Design-For-Reliability of Power

Induced Wear-Out Failures

Break, Appetizers

Dinner

17:00

17:30

19:00

Plexim

Dr. Ionut Vernica

Conference Agenda

Wednesday, March 13, 2024 – Conference Day 2

8.00 Welcome Coffee 8.30 Web Application With Extended XML Datasets for Higher Simulations Flexibility Felix Mathis Hitachi Energy 9.00 Thermal Modeling and Validation of Multiphase Inverter With PLECS RT Box Dr. Achim Endruschat & Jahannes Spies Vietsco 9.30 Modeling of Semiconductor Switching Incomplete Soft-Switching and Incomplete Soft-Switching Regions Mike Zäch AU Energy 9.30 Modeling of Semiconductor Switching Incomplete Soft-Switching Regions Simon Quergfelder AU Energy 9.30 Break Simon Quergfelder Fraunhofer IISB 10.00 Brevelopment of Multilevel Converters With PLECS Environment Uning a Customized Library With Thermal Description Files Generated by ViNcoSIM Simon Quergfelder Fraunhofer IISB 11.30 Modelling and Usage of Vincotech Power Modules in PLECS Environment Uning Customized Library With Thermal Description Files Generated by ViNcoSIM Pilitip Kappes PE-Systems 12.00 Luch Environment Gupting Christopher Schmidt Semikron Danfoss 13.30 Calculation of the Junction Temperature of Power Electronic Modules Including Christopher Schmidt Semikron Danfoss 14.00 Spatially Distributed Thermal Modeling for Advanced Thermal Simulations Dr. Christian Mentin Silicon Austria Labs	weunesuay, I	March 15, 2024 – Conterence Da	y 2	
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Losses in Soft-Switching and Incomplete Soft-Switching RegionsIncomplete Soft-Switching Regions10:00Break10:30From Simulation to Commissioning: Development of Multilevel Converters With PLECSSimon QuergfelderFraunhofer IISB11:00Modelling and Usage of Vincotech Power Modules in PLECS Environment Using a Customized Library With Thermat Description Files Generated by VINCoSIMDr. Gábor ManhertzVincotech11:30Machine-Readable Datasheets and Automatic Device Modeling Thermal CouplingPhilipp KappesPE-Systems12:00Lunch	9:00	-		Vitesco
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for Advanced Thermal SimulationsImage: Second Simulation Simula	14:00	for Reliable Power Electronic	Pascal Schirmer	BMW
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16:30 End of Conference	16:00	PLECS: Future Prospects	Dr. Wolfgang Hammer	Plexim
	16:30	End of Conference		



Organisational Information

Registration Deadline	February 29, 2024	
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). <u>The one-way fare is CHF 6.80</u> . From Hardbrücke it takes a 5-10 minutes' walk to the venue and the hotels. <u>Detailed information</u>	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 25.00 per day. A taxi ride from the airport to the venue costs approximately CHF 60.00.
Recommendation for Accommodation	<u>Ibis Zurich City West</u> <u>Novotel Zurich City-West</u> <u>25Hours Hotel Zurich West</u> <u>Renaissance Zurich Tower Hotel</u>	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 700.00 (incl. VAT) or EUR 700.00 (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 days, dinner on March 12	
Cancellation Policy	Full amount will be refunded if cancelled by February 21, 2024. After this date or no- show, the participation fee is non- refundable.	If the organizer has to cancel the event, the registration fee will be refunded in full.
General Data Protection Regulation	We kindly point out that we must store your personal data in our database in order to process your registration. <u>Plexim's privacy</u> 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 2024 can be found on our <u>website</u> .	
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