

Conference Agenda

Wednesday, September 24, 2025					
MORNING	09:10-10:00	Conference Opening & Award Ceremony Conference Director: Leo Lorenz, ECPE, DE Conference Room 1			
	10:00 - 10:40	Keynote 1: Technological Evolution and Future Perspectives of Electric Vehicle Power Converters Speaker: Liu Chang, Director of R&D Center, SuZhou Inovance Automotive Co., Ltd. Chair: Meiqin Mao, Hefei University of Technology, CN Conference Room 1			
	10:40 - 10:55	Tea break & Room change ☕			
	10:55 - 12:45	Oral Session: WBG I_SiC Chair: Naoto Fujishima, Fuji Electric, JP Conference Room 1	Oral Session: Smart Grid Power Electronics Chair: Dapeng Zheng, Shenzhen Hopewind Electric, CN Conference Room 2		
AFTERNOON	12:45 – 13:30	Lunch Break 🍽️			
	13:30 - 15:00	Power Si-Devices Chair: Shunli Wang, Inner Mongolia University of Technology, CN Poster Dialogue Session 1	WBG Devices Chair: Ziyang Chen, CN Poster Dialogue Session 2	Packaging & Reliability Chair: Gaosheng Song, Great China Mitsubishi Electric Semiconductor, CN Poster Dialogue Session 3	Power Converter Chair: Guoqiang Zhang, Harbin Institute of Technology, CN Poster Dialogue Session 4
	15:00 - 16:40	Oral Session: Si Device Chair: Yi Tang, Starpower Semiconductor, CN Conference Room 1		Oral Session: Packaging & Reliability I Chair: Norbert Pluschke, CN-iCuTech Semiconduc- Conference Room 2	
Thursday, September 25					
MORNING	09:30-10:10	Keynote 2: Ultra-Compact and Efficient Power Supply Enabling AI Computing Speaker: Teng Long, University of Cambridge Chair: Xuhui Wen, Institute of Electrical Engineering, Chinese Academy of Sciences, CN Conference Room 1			
	10:10 - 10:25	Coffee Break & Room Change ☕			
	10:25 - 12:15	Oral Session: WBG II_GaN Chair: Gourab Majumdar, Mitsubishi Electric Corporation, JP Conference Room 1		Oral Session: Motor Drive & Motion Control Chair: Tianhao Tang, Shanghai Maritime University, CN Conference Room 2	
AFTERNOON	12:15 – 13:30	Lunch Break 🍽️			
	13:30 - 15:00	Motor Control Chair: Jinsong Kang, Tongji University, CN Poster Dialogue Session 5	High Frequency Power Converter Chair: Min Chen, Zhejiang University, CN Poster Dialogue Session 6	Smart Grid & Energy Transmission Chair: Teng Liu, China Southern Power Grid Electric Power Research Institute, CN Poster Dialogue Session 7	
	15:00 - 16:40	Oral Session: SiC related hybrid switch Chair: Yijen Chan, Cynotec Co., Ltd, TW, CN Conference Room 1		Oral Session: Packaging & Reliability II Chair: Wei Jing, Semikron Danfoss, CN Conference Room 2	
Friday, September 26					
MORNING	09:30-10:10	Keynote 3: Evolutionary Trends in Power Supply for AI Data Centers Speaker: Zhaozheng Hou, Huawei Digital Power. Chair: Jinjun Liu, Xi'an Jiaotong University, CN Conference Room 1			
	10:10 - 10:25	Coffee Break & Room Change ☕			
	10:25 - 12:40	Special Session:“Power Chiplet” technology, ultra-high-power density platform for future power electronics Chair: Naoto Fujishima, Fuji Electric, JP Organizer: Ichiro Omura, Kyushu Institute of Technology Conference Room 1		Oral Session: Advanced low power Module Design Chair: Lifeng Chen, Infineon Technologies, CN Conference Room 2	
AFTERNOON	12:40 – 13:30	Lunch Break 🍽️			
	13:30 - 18:00	The PCIM Asia Shanghai Tour - E-mobility *only by invitation, First in first served			



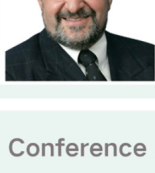
Conference

Wednesday, Sep, 24, 2025 | SNIEC, Hall N4



Morning Session


9:10 a.m.



Conference Zone

Conference Opening & Award Ceremony

Conference Director: Leo Lorenz, ECPE, DE

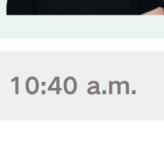


10:00 a.m.

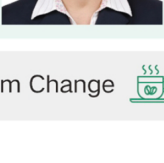
Conference Zone

Keynote 1

Technological Evolution and Future Perspectives of Electric Vehicle Power Converters




Speaker:
Liu Chang,
Suzhou Inovance Automotive Co.,Ltd., CN



Chairperson:
Meiqin Mao,
Hefei University of Technology, CN

10:40 a.m.

Coffee Break & Room Change




Oral Session

10:55 a.m.-12:45 a.m

Conference Room 1


WBG I_SiC



Chairperson: Naoto Fujishima,
Fuji Electric, JP

10:55 a.m.


Chair's opening speech



11:05 a.m.

400 V SiC MOSFET Unlocks New Efficiency and Power Density Ranges for Server and AI Power Supply Solutions


Owen Song, Infineon Semiconductors (Shenzhen) Company Limited, CN



11:30 a.m.

Impact of P-well Contact on Dynamic Losses in Scaled 1.2 kV SiC MOSFETs for Parallel Switching Applications


Paula Reigosa Diaz, SwissSEM Technologies AG, CH



11:55 a.m.

Research on Overcurrent Interruption Capability and Influencing Factors of SiC MOSFETs in DCCBs

Xiangyu Wan, Huazhong University of Science and Technology, CN



12:20 a.m.

Online Monitoring of SiC MOSFET Junction Temperature with Full-range and Gate oxide Defect Insensitivity

Dan Zheng, Institute of Electrical Engineering, Chinese Academy of Sciences, CN

Conference Room 2

Smart Grid Power Electronics



Chairperson: Dapeng Zheng,
Shenzhen Hopewind Electric, CN

10:55 a.m.

Chair's opening speech



11:05 a.m.

A High-Power Step-Up DC Transformer for Renewable Energy Distribution Systems

Jiahui He, Harbin Institute of Technology, CN



11:30 a.m.

Design and Testing of 1.44 kVac / 270 Vdc 50 kW Solid-state Transformer Cell for Data Centers

Xin Wu, Zhejiang University, CN



11:55 a.m.

Advanced Energy Management to Effectively Utilize Buildings' Renewable Energy Generation and Storage Capabilities

Christos Mademlis, Aristotle University of Thessaloniki, GRC



12:20 a.m.

Adaptive Switching Frequency Boundary in Hybrid DCM and BCM Method for Flyback Micro-Inverter


Lwena Delgado, Shanghai University, CV

Afternoon Session

15:00 p.m.-16:40 p.m

Conference Room 1


Si Devices



Chairperson: Yi Tang, Starpower Semiconductor, CN

15:00 p.m.


Chair's opening speech



15:10 p.m.

A new IGBT Platform for up to 8.5 kV with unprecedented turn-off current capability


Umamaheswara Vemulapati, Hitachi Energy Ltd. Semiconductors, CH



15:35 p.m.

Enhanced 900 A 1700 V ED Module with Micropattern Trench IGBT for High Performance and Reliability


Nick Schneider, SwissSEM Technologies AG, CH



15:50 p.m.

Next Generation 1200V IGBT and Diode Technology for Automotive Drivetrain Applications

Jiong Wu, Infineon Technologies AG, DE




16:15 p.m.

Asymmetric ESD protection in bidirectional trench power MOSFETs for Li-ion battery applications

Xueqing Liu, Alpha and Omega Semiconductor, US

Conference Room 2


Packaging & Reliability I



Chairperson: Norbert Pluschke
CN-iCuTech Semiconductor, HKSAR, CN

15:00 p.m.


Chair's opening speech



15:10 p.m.

Effect of Processing Condition on Reliability Performance of SiC package by Pressure-less Silver Sintering

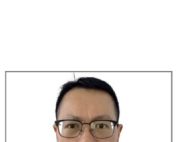
Ziyang Li, Guangdong Fenghua Semiconductor Technology Co., Ltd., CN



15:35 p.m.

Full SiC SLIMDIP for High Efficiency Applications

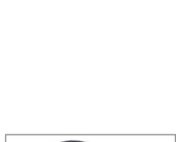
Takakura Kazuki, Mitsubishi Electric & Electronics (Shanghai) Co., Ltd., JP



15:50 p.m.

High Performance Materials Developing for Power Module

Shihuan Lu, Sumitomo Bakelite (Suzhou) Co., Ltd., CN



16:15 p.m.


All in One Copper Sintering – Die attach and Substrate Attach in Single Step with Soft Tool

Sri Krishna Bhogaraju, CuNex GmbH, DE


Poster Session

13:30 p.m.-15:00 p.m | Hall 4. Poster Gallery

Power Si-Devices




Chairperson: Shunli Wang,
Inner Mongolia University of Technology, CN



PP01

Superjunction MOSFET with a Trench Contact and Embedded SiO2 Insulator for Excellent Reverse Recovery

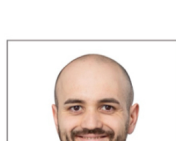
Rui Li, Chengdu Semi-Future Technology Co., Ltd., CN



PP02

New developed 3.3kV/2.4kA Trench IGBT for Traction application


Xing Chen, Zhuzhou CRRC Times Semiconductor Co.Ltd., CN



PP03

Plasma Shaping in Silicon Diodes by Cathode-Side Lifetime Recovery


Nick Schneider, SwissSEM Technologies AG, CH



PP04

Benefits of EDT3 750V Technology in Automotive Inverter Applications


Jiong Wu, Infineon Technologies AG, DE



PP05

The Impact of Gate Driver Loop Output Capability and Stray Parameters on Switching Performance


Jie Dong, Infineon, CN



PP06

Optimized Water Jacket Pin-Fin design for Reducing Pressure Drop in Cooling System


Juyoung Kim, onsemi, KR



PP07

1200V and 650V Automotive Power Module Applications in Various (H)EV OBC and DC/DC Converters

Younhee Lee, onsemi, KR




PP08


New intelligent power module, CIPOSTM Mini DCB IPM with 7th generation IGBTs for motor drive applications

Bokkeun Song, Infineon Technologies Korea, KR

WBG Devices




Chairperson: Ziyang Chen, CN



PP09

Investigation on Channel Mobility of SiC Trench MOSFET


Qijun Liu, Zhuzhou CRRC Times Semiconductor Co., Ltd., CN



PP10

A Robust and Reproducible Gate Charge Measurement Approach for SiC MOSFET Characterization


Wenqi Zhou, Robert Bosch GmbH, DE



PP11

Application of SiC Hybrid Discrete in Photovoltaic and Energy Storage Systems


Shuai Cao, Macmic Science & Technology Co., Ltd., CN



PP12

Switching behavior investigation of 1200V CoolSiC MOSFET Gen2 discrete


Jia Zhao, Infineon Integrated Circuit (Beijing) Co., Ltd., CN



PP13

Leveraging Ultra-High Efficiency in High Power Open Frame Flyback Applications


Han Cui, Power Integrations, CN



PP14

Low-cost SOI-based level-shift gate driver for high-voltage and >1MHz switching in GaN applications


Weidong Chu, Infineon, US



PP15

Comparative Analysis of Gate Driver Control Topologies: Effects on SiC MOSFET Switching Performance in Half-Bridge Configurations

Lan Fang, Robert Bosch GmbH, DE



PP16

New 1200 V SiC MOSFET-based CIPOS™ Maxi Intelligent Power Module for High-Efficiency Motor Drives

Kihyun Lee, Infineon Technologies Korea, KR

Packaging and Reliability



Chairperson: Gaosheng Song,
Great China Mitsubishi Electric Semiconductor, CN



PP17

Application of Cu Sintering Technology in High-Power-Density Double-Sided Cooling SiC Module

Haobin Chen, Zhejiang University, CN



PP18

Investigation of Large Area Solder with TrueHeight™ Preform on Bare Cu Substrates


Liuchang Hu, Macdermid Alpha Electronics Solutions, CN



PP19

Design and Assessment of Si/SiC Hybrid Power Module With Cu Clip Interconnection for Solar Power Generation


Xiankun Zhang, China Resources Runan Chongqing, CN



PP20

Influence of the Junction Temperature on the Dynamic Gate Bias Test of SiC MOSFETs

Xiaogang Hu, Nanjing NARI Semiconductor Co., Ltd, CN



PP21

Spatial-Temporal Customizable Topology Graph Networks Combined with LSTM for Power Device RUL Prediction

Xu Gao, Beijing University of Technology, CN



PP22

Fault Classification Method for PEMFC Based on Equivalent Circuit and SVM

Jiahui Zhang, Hefei University of Technology, CN

Power Converter



Chairperson: Guoqiang Zhang,
Harbin Institute of Technology, CN



PP23

Highly Efficient Auxiliary Power Supply Solution using Infineon CoolSET™-SiP ZVS Flyback Controller with CoolMOS™ and CoolSiC™ integrated in one package


Zhidan Luo, Infineon Technologies Asia Pacific Pte Ltd., SG



PP24

An Optimized Driver Design Strategy for ESS Application

Qibin Wu, Infineon Technologies, HKSAR, CN



PP25

Realize High Performance 200kVA Auxiliary Power Supply with 1.7kV SiC MO

Jian Sun, Mitsubishi Electric & Electronics (Shanghai) Co., Ltd., CN



PP26

An Active Method to Solve the Touch Current Issue of Totem-pole Bridgeless PFC Rectifier

Desheng Guo, Texas Instruments, CN



PP27

High Voltage Converter Input Units with Improved Input Current Quality

Yury Skorokhod, Transconverter, RU



PP28

48-12 V High Frequency LLC resonant Converter with FPCB Transformer for Data Center

Siyaoy Hu, Kyushu University, JP



PP29

A Dual-phase Interleaved AC Link Converter for HPC Processors

Zhaoliang Wen, Harbin Institute of Technology, CN



Conference

Thursday Sep, 25, 2025 | SNIEC, Hall N4



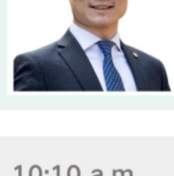
Morning Session

09:30 a.m.

Conference Zone

Keynote 2

Ultra-Compact and Efficient Power Supply Enabling AI Computing



Speaker:
Teng Long,
University of Cambridge, UK



Chairperson:
Xuhui Wen,
Institute of Electrical Engineering,
Chinese Academy of Sciences, CN

10:10 a.m.

Coffee Break & Room Change



Oral Session

10:25 a.m-12:15 a.m

Conference Room 1

WBG II_GaN



Chairperson: Gourab Majumdar
Mitsubishi Electric Corporation, JP

10:25 a.m.

Chair's opening speech

Conference Room 2

Motor Drive & Motion Control



Chairperson: Tianhao Tang
Shanghai Maritime University, CN

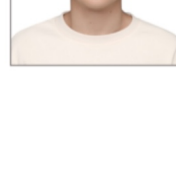
10:25 a.m.

Chair's opening speech



10:35 a.m.
System benefit of drone driven by GaN based inverter

Alan Waikun Lun, Infineon Technologies
Hong Kong Ltd., HKSAR, CN



10:35 a.m.
Deadbeat predictive Control of Dual Three-Phase Linear Motors Based on Sliding Mode Observer

Huifei Cheng, Tongji University, CN



11:00 a.m.
Dynamic On-Resistance Characterization of GaN HEMTs under High Temperature Using Multigroup Double Pulse Test

Xu Jiang, Zhejiang University, CN



11:00 a.m.
Dual Position Feedback-Based Oscillation Suppression Method for Full Closed-Loop Position Control

Xiangrui Xu, Harbin Institute of Technology, CN



11:25 a.m.
Leveraging Ultra-High Efficiency in High Power Open Frame Flyback Applications

Han Cui, Power Integrations, CN



11:25 a.m.
A Flexible Operated Li-ion Battery Management System for Motor Drives in Electric Vehicle Applications

Christos Mademlis, Aristotle University of Thessaloniki, GRC



11:50 a.m.
25kW/L 99.2% Efficiency Wide Output 3phase PFC Converter based on Modular Inductive Switching Network

Wending Zhao, Zhejiang University, CN



11:50 a.m.
Artificial Intelligence Augmented P(Al)D Cycle-by-Cycle Controller for Automotive DC-DC Converter Applications Based on AURIX TC4x

Mihail Jefremow, Infineon Technologies AG, DE

12:15 a.m.

Lunch Break

Afternoon Session

Oral Session

15:00 p.m-16:40 p.m

Conference Room 1

SiC related hybrid switch



Chairperson: Yijun Chan, Cynotec Co., Ltd, TW, CN

15:00 p.m.

Chair's opening speech

Conference Room 2

Packaging & Reliability II



Chairperson: Wei Jing, Semikron Danfoss, CN

15:00 p.m.

Chair's opening speech



15:10 p.m.
Introducing a new 650 V SOI Gate Driver with Improved DESAT Protection

Zhou Chen, Infineon Technologies Americas Corp., US



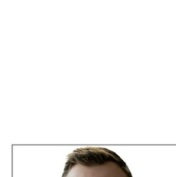
15:10 p.m.
Analysis and Study on the Advantages of one Innovative SiC Chip Embedding PCB Solution for xEV Main Inverter Application

Hao Zhang, Infineon Technologies China Co. Ltd., CN



15:35 p.m.
FusionPlus – Novel Hybridswitch to improve efficiency and reduce system cost in 800V battery electrical vehicles inverter

Norbert Pluschke, CN-iCuTech Semiconductor Co.Ltd HongKong, HKSAR, CN



15:35 p.m.
3D Wiring Technology Development for Power Modules to Achieve High-Power Density

Akito Nakagome, Fuji Electric Co., Ltd., JP



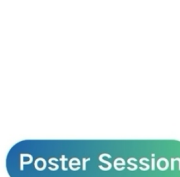
15:50 p.m.
Practically achievable WLTC loss improvements for the Si/SiC hybrid switch approach in a 400 V automotive traction inverter application – a retrofitting case study

Hariprasad Baburajan, Valeo eAutomotive Germany GmbH, DE



15:50 p.m.
Advanced cooling of power electronics with copper cold sprayed aluminium heatsinks & busbars.

Michael Dasch, Impact Innovations GmbH, DE



16:15 p.m.
Active DC-Link capacitor discharge methods with Si/SiC Fusion power module for addressing vehicle cost down

Tomas Reiter, Infineon Technologies AG (Neubiberg), DE



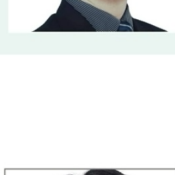
16:15 p.m.
Increased power density and lifetime of thin automotive inverter chips through Cu bonding

Maria Spies, Infineon, DE

Poster Session

13:30 p.m-15:00 p.m | Hall 4. Poster Gallery

Motor Control



Chairperson: Jinsong Kang, Tongji University, CN

High Frequency Power Converter



Chairperson: Min Chen, Zhejiang University, CN



PP30
Double-Ratio Based PI Parameters Design Method of Two-Mass Speed Loop System

Pengcheng Lan, Harbin Institute of Technology, CN



PP38
Reducing the Size and Weight of Filter Inductor for NPC 3-Level Inverter with 240CPWM

Jiaxuan Yu, Shanghai University, CN



PP31
Ellipse Condition Based Controller Parameter Tuning for Refined Stability Performance

Pengcheng Lan, Harbin Institute of Technology, CN



PP39
Comparative Analysis on Series Resonant Converter and CLLC Resonant Converter for Micro-Inverter Application

Chaojie Zhu, Shanghai University, CN



PP32
Research on Narrow Pulse Suppression Strategy of Three-level Inverter Based on Dual Modulation Wave CBPWM

Xudong Bai, Harbin Institute of Technology, CN



PP40
Small Signal Models of Wireless Power Transfer Converters for Unmanned Vehicles Charging Stations

Nikolay Kalugin, KW Systems LLC, RU



PP33
Review of the Longitudinal End Effect in Linear Electric Machines

Bining Liu, Tongji University, CN



PP41
Isolated Bi-directional Grid-connected Micro-inverter Based on Series Resonant Converter

Deliang Wu, Shanghai University, CN



PP34
Parameter Identification of Robotic Joint with Harmonic Drive

Xinyuan Liu, Harbin Institute of Technology, CN



PP42
Multi-functional Chip Contributes to the Compact Design of Automotive SiC Power Module

Lizhong Zhao, Mitsubishi Electric & Electronics (Shanghai) Co., Ltd., CN



PP35
PPC-Based Hybrid Flux Observer with Flux Error Estimation for Sensorless SPMSM Drives

Xubo Gong, Harbin Institute of Technology, CN



PP43
Optimized Extended Phase Shift Modulation for Dual Active Bridge Converters in Automotive Battery Systems

Jiaming Wang, Harbin Institute of Technology, CN



PP36
Resonance Ratio Control for Vibration and Disturbance Suppression in Force Servoing

Zhiyu Zhang, Harbin Institute of Technology, CN



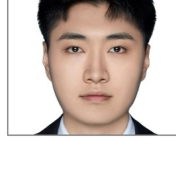
PP44
Multi-Objective Optimization Design of Bidirectional Series Resonant Converter Based on Deep Reinforcement Learning

Xiang Pan, Hefei University of Technology, CN



PP37
Optimization Method of Stator Winding Temperature Model of Permanent Magnet Synchronous Motor

Songze Zhao, Institute of Electrical Engineering, Chinese Academy of Sciences, CN

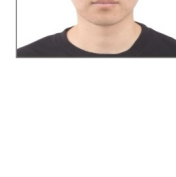


PP45
Fast Charging Station for Simultaneous Recharging of Three Electric Vehicles

Nikolay Volskiy, Charge Evolution, RU

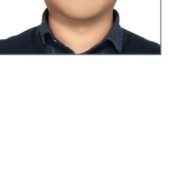


Chairperson: Teng Liu, China Southern Power Grid Electric Power Research Institute, CN



PP49
Probability Predication of Electric Vehicle Schedulable Capacity Based on Improved Informer with Copula

Zhibo Liu, Hefei University of Technology, CN



PP46
New Generation Ultra High Power Semiconductors for VSC-HVDC Applications

Evgeny Tsyplakov, Hitachi Energy, CH



PP50
A Comparative Evaluation of Efficiency and Volume for Monolithic Rectifier and Solid-State Transformer

Ruiyi Li, Harbin Institute of Technology, CN

PP47
Performance Analysis of Basic and Active Neutral Point Clamped Inverter for Energy Storage System

Andrew Yang, onsemi, KR

PP51
The Economical Solution of Offshore HVDC for Wind Power Integration and Performance Comparison

Zuoyu Wei, Infineon Technologies (Xi ' an) Co., Ltd., China, CN

PP48
High Efficiency SiC MOSFET Solutions for Solar System

Wenmin Hua, Infineon Technologies Center of Competence (Shanghai) Co. Ltd., CN



Conference

Friday, 26 September, 2025 | SNIEC, Hall N4



Morning Session

09:30 a.m. Conference Zone

The Evolution Trend of Power Supply Architecture in Large-Scale AI Data Centers



Speaker:
Zhaozheng Hou,
Huawei Digital Power, CN



Chairperson:
Jinjun Liu
Xi'an Jiaotong University, CN

10:10 a.m.

Coffee Break & Room Change

Oral Session 10:25 a.m-12:40 a.m

Conference Room 1

Special Session: “Power Chiplet” technology, ultra-high-power density platform for future power electronics



Chairperson: Naoto Fujishima
Fuji Electric, JP

10:25 a.m.

Chair's opening speech



10:30 a.m.
Power Chiplet Technology for Next Generation Power Electronics Systems

Organizer: Ichiro Omura, Kyushu Institute of Technology, JP



10:50 a.m.
Advanced Packages With Power-On-Substrate Solutions

Frye, Fung, ACCESS Semiconductor Co., Ltd., CN



11:15 a.m.
Chip Embedded Panel level Power Package for AI and Vehicles

Yoshiaki Aizawa, AOI Electronics Co.,Ltd., JP



11:40 a.m.
Novel Integration Concepts for Power Electronics – Embedding of SiC MOSFET for High-performance Power Modules

Lars Boettcher, Fraunhofer IZM Berlin, DE

Conference Room 2

Advanced low power Module Design



Chairperson: Lifeng Chen,
Infineon Technologies, CN

10:25 a.m.

Chair's opening speech



10:35 a.m.
Inductor-Induced Oscillations in SiC Device Characterization: A Comparative Study

Nguyen Nghia Do, IPowerX Semiconductor, HKSAR, VNM



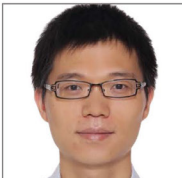
11:00 a.m.
New Transfer-Molded Compact DIIPM

Takamasa Miyazaki, Mitsubishi Electric Corporation, JP



11:25 a.m.
Thermal Performance Analysis and Study on one Top Side Cooling discrete package for xEV OBC Application

Jiming Li, Infineon, CN



11:50 a.m.
SiC MOSFET based CCM Totem-pole PFC with Ultra-slim Design

Guoxing Zhang, Infineon Technologies, SGP



12:15 a.m.
Voltage Derating Behavior of High Temperature Capacitors for DC-Link Applications

Adel Bastawros, SABIC, US

12:40 a.m.

Lunch Break