pcim
ASIA SHANGHAI

24-26, September,2025
Conference Room, Hall N4
Shanghai New International Expo Centre, China

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** Speaker: Liu Chang, 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: Ziying Chen, CN Poster Dialogue Session 2	**Packaging & Reliability** Chair: Gaosheng Song, 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, Cyntec 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			
	13:00 - 18:00	**The PCIM Asia Shanghai Tour - E-mobility** *only by invitation, First in first served			

pcim Conference

Wednesday, Sep. 24, 2025 | SHSC, Hall 5A

Morning Session

09:00 a.m. Conference Room 1

Conference Opening & Award Ceremony

Conference Director Lou Lorenz, EPE, USA

10:00 a.m. Conference Room 1

Technological Evolution and Future Perspectives of Electric Vehicle

Speaker: Wenzhong Gao, Kansas State University, USA

Chairperson: Ke Li, Zhejiang University of Technology, PR

Coffee Break & Room Change

Parallel Session

10:45 a.m.–12:00 p.m.

Conference Room 1

WBG I, SiC

Chairperson: Sandro Fuginina, Infineon, Austria

Chair's opening speech

11:00 a.m.
400 V SiC MOSFET Solutions New Generation Power Modules Targets for Server and AI Power Supply Applications
Jacek Rogg, Infineon Semiconductors Poland, Poland

11:15 a.m.
Impact of P and Cluster on Electrical Losses in Scaled 1.2 kV 4H-SiC Power MOSFETs Switching Applications
Ralf Siemieniec, Infineon, Austria

11:30 a.m.
Research on Overcurrent Interruption Capability and Reliability Design of SiC MOSFETs in DC/DC
Yuanzhi Zhang, Nanjing University of Science and Technology, PR

11:45 a.m.
Characterization of 1.2 kV MOSFET Junction Temperature with Fast Electrical Gate Voltage Sensing
Ugo Zoeng, Institute of Electrical Engineering of the Slovak Academy of Sciences, Slovakia

Conference Room 2

Smart Grid Power Electronics

Chairperson: Gaoyang Zhang, Shanghai Hyasynet Electric, CN

Chair's opening speech

11:00 a.m.
Advanced Energy Management by Effectively Utilize Multiple Energy Resources Including Hydrogen and Storage Capabilities
Ryuichi Shimada, Tokyo Institute of Technology, Japan

11:15 a.m.
Bidirectional Charging Frequency Recovery in Dual-Active Bridge Converter for Electric Vehicles
Lenka Gogolev, Kongsberg University, Norway

11:30 a.m.
Bidirectional Power Flow Control Strategy for Solid State Transformer Based on Improved Phase Shift Modulation
Ke Ma, Shanghai University, PR

11:45 a.m.
Bidirectional Energy Management Strategy for Electric Vehicle Charging Stations Integrated with Photovoltaic and Storage Capabilities
Ke Li, Zhejiang University of Technology, PR

12:00 p.m. **Lunch Break**

Afternoon Session

13:30 p.m.–15:00 p.m.

Conference Room 1

SiC Devices

Chairperson: Yi Tang, Sanjuan Semiconductor, CN

Chair's opening speech

13:45 p.m.
A Low ISCF Platform for up to 1500V Automotive Applications with current capability
Christophe Kopecsek, Mersen, France

14:00 p.m.
Characterization of a 1700 V SiC Module with Microplastic Trench Gate Technology for Reliability and Capability
Ben Schneider, Sanjuan Semiconductor, CN

14:15 p.m.
Comparison between 1200V DMP and Mesa Technology for Automotive Innovation Applications
Jinfa Wu, Infineon Technologies, DE

14:30 p.m.
Asymmetric SiC protection in bidirectional switch power cells for AC-AC power applications
Sandro Ai, Wolfspeed, Germany

Conference Room 2

Packaging & Reliability I

Chairperson: Norbert Kaminski, Ulm Monopolis University of Technology, DE

Chair's opening speech

13:45 p.m.
Effect of Processing Condition on Microstructure and Thermal Conductivity of Sintered Silver Screening
Yuanqing Wang, Shanghai Semiconductor Technology, CN

14:00 p.m.
Thermal Cycling Test for High Efficiency Applications
Ralf Dudzek, Fraunhofer Institute of Electronic Nanosystems (FhG-ENAS), DE

14:15 p.m.
Thermal Performance Materials Selection for Power Electronics
Ahmed Ali, Southwest Research Institute, USA

14:30 p.m.
Thermal Cycling Reliability Testing of Power Modules
Ke Li, Zhejiang University of Technology, PR

Power SI Devices

Chairperson: Shuvit Wang, Ulm Monopolis University of Technology, DE

09:00
Experimental MOSFET with a Trench Contact and Embedded SiGe Layer for Improved Switching Performance
Ke Li, Chengdu Sino-Power Technology Co., Ltd.

09:15
New Generation 3.3kV/10.4kA Silicon IGBT for Traction Applications
Ang Zhao, Zhuzhou CRRC Times Semiconductor Co., Ltd.

09:30
Surface Breaking in Silicon Diodes by Laser Dicing Causing Reverse Leakage
Ben Schneider, Sanjuan Semiconductor, CN

09:45
Benefits of 3D'S 1200V Technology in Automotive Inverter Applications
Jeffrey Wu, Infineon Technologies AG, DE

10:00
The Impact of Gate Driver Loop Inductance on Switching Characteristics and Switching Performance
Jin Wang, Intersil, USA

10:15
Optimized Wafer Journal Pin Pin Structure for Reducing Pressure Drop in Cooling Systems
Jianhong Wei, Jiangsu

10:30
CBRD and BRD Automotive Power Modules Based on Silicon Carbide (SiC) MOSFET and SiC DCDC Converters
Tianchao Liu, Jiangsu, CN

10:45
Ultra-intelligent power modules, controller dies with PFM, gate Pin generation IGBT's for motor drive applications
Jaime Ruiz, Infineon Technologies Malaga, ES

WBG Devices

Chairperson: Zhang Chen, CN

09:00
Investigation on Channel Mobility of SiC Trench MOSFET
Ke Li, Zhejiang UNIV, Yuan Semiconductor Co., Ltd.

09:15
A Robust and Reproducible Gate Oxide Reliability Assessment Method for SiC Power Devices
Chris Ahrens, Fraunhofer Institute for Reliability and Microintegration, DE

09:30
Application of SiC Hybrid Devices in Electric Vehicle Traction Inverters
Ke Li, Zhejiang University of Technology, PR

09:45
Switching Behavior Investigation of 1200V CoolSiC MOSFET Devices
Jia Wei, Infineon Technologies Asia Pacific, CN

10:00
Comparing Ultra-High Efficiency in Power Supply for AI Data Centers
Yan Cui, Power Integrations, CN

10:15
Low-loss SiC-based Inverter with Gate Oscillation Suppression and Ultra-fast Switching in Solid Applications
Weiheng Sun, Shenzhen, CN

10:30
Comparative Evaluation of Gate Driver Performance for 650V GaN HEMTs and SiC MOSFETs
Lan Fang, Rated Power Gmbh, DE

10:45
A 1200 V SiC MOSFET based Bidirectional Isolated Gate Driver Module for High-Efficiency Motor Drives
Wilson Lee, Infineon Technologies Asia, HK

Packaging and Reliability

Chairperson: Gaoshang Zhang, Rated Electronic Technology, CN

09:00
Application of Ag Sintering Technology in Power Electronic Modules
Hanjun Chen, Zhejiang University, CN

09:30
Investigation of Large Area Sintered with Traditional* Platform on Bare Copper Substrate
Lu Zhang, Fraunhofer Institute Reliability and Microintegration, DE

09:45
Design and Assessment of SiC/GaN Power Modules Based on Low Inductance Substrate for Low Loss Operation
Xiaoke Zhang, China Resources Power Semiconductor, CN

10:00
Influence of the counter Temperature on the Dynamic Gate Oxide Reliability of SiC MOSFETs
Sandro Ai, Wolfspeed, Germany

10:15
Scaled Transient Customizable Thermal Model for Power Semiconductors with DTM for Power Module Design
Ke Ma, Shanghai University of Technology, CN

10:30
Fast Classification Method for PDMFC Based on Equivalent Circuit Model Parameters
Jiaxin Zhang, Hefei University of Technology, CN

Power Converter

Chairperson: Guoqiang Zhang, Hefei Institute of Technology, CN

09:00
Highly Efficient Auxiliary Power Supply Design for Electric Vehicle Charging Stations
Zhuo Lin, Infineon Technologies Asia Pacific Pte. Ltd., SG

09:15
An Optimized Gate Drive Strategies for Energy Storage Applications
Qian Ma, Infineon Technologies, CN

09:30
Modern High Performance Inductors for Power Electronics Applications
Jan Kay, Würth Elektronik & Electronic Ringspeicher, DE

09:45
Low Inductance Design of Gate Drive Circuit Based on Planar Busbar
Lan Fang, Rated Electronic Gmbh, DE

10:00
Gate Drive Method to Solve the Trench Current Issue of Interior gate Structure SiC MOSFET
Guoqiang Zhang, Tianjin Kaiwei Electronic, CN

10:15
High Voltage Converter Input Using Multi-Phase Interleaved Flyback Control
Yuan Wuzhidian, Semiconductor, CN

10:30
MV 2.5 kV Proportional LLC resonant Converter with PFCD Control Based on 1700V SiC
Kaiqi Xu, Suzhou Vincotech, JP

10:45
A Dual-phase Interleaved AC Link Converter for Wireless Charging
Zhiqiang Wei, Hefei Institute of Technology, CN

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Thursday, Sep. 25, 2025 | SHSC, Hall 5A

Morning Session

09:00 a.m. Conference Room 1

Ultra-Compact and Efficient Power Supply Enabling AI Computing

Speaker: Lucas Lu, Texas Instruments, CN

Chairperson: Andrew Wu, Institute of Electrical Engineering, Chinese Academy of Sciences, CN

Coffee Break & Room Change

Parallel Session

10:45 a.m.–12:15 p.m.

Conference Room 1

WBG II, GaN

Chairperson: Gerald Meissner, Infineon Technologies, DE

Chair's opening speech

10:55
System benefit of drive driven by GaN transistors
Bernd Hartmann, Infineon Technologies Germany, DE

11:10
Bidirectional Characterization of GaN HEMTs under High Temperatures Using Advanced Gate Drive Technology
Yu Ma, Peking University, PR

11:25
Bidirectional Characterization of GaN HEMTs under High Temperatures Using Advanced Gate Drive Technology
Yu Ma, Peking University, PR

11:40
Comparing Ultra-High Efficiency in High Power Supply Future Platform
Yan Cui, Power Integrations, CN

11:55
GaN HEMTs, 4H-SiC Efficiency Wins Over Si Technology in Automotive Inverter or Medical Applications
Jeremy Hu, Infineon Technologies, Malaysia, Malaysia

Conference Room 2

Motor Drive & Motion Control

Chairperson: Tianhao Tang, Shanghai Jiao Tong University, CN

Chair's opening speech

10:55
Sensitive prediction Control of Permanent Magnet Synchronous Motor Drive Based on Sliding Mode Observer
Yuhao Liang, Tongji University, CN

11:10
Sensitive Feedback-Based Coordinated Control Strategy for Full-Speed Long Pulsing Operation
Jiangyi Liu, Hefei Institute of Technology, CN

11:25
Sensitive Feedback-Based Coordinated Control Strategy for Full-Speed Long Pulsing Operation
Jiangyi Liu, Hefei Institute of Technology, CN

11:40
A Flexible Operation Low Battery Management System Based on Multi-Objective Optimization Method
Yuhao Liang, Tongji University, CN

11:55
Artificial Intelligence Augmented Motor Drive Control Enhancement for Automotive EV/EV Compact Inverter Design Using Sensorless Hardware
Ziyi Jiang, Infineon Technologies AG, DE

12:10 p.m. **Lunch Break**

Afternoon Session

13:45 p.m.–15:45 p.m.

Conference Room 1

SiC related hybrid switch

Chairperson: Jian Chen, Cyntec Electronics, CN

Chair's opening speech

13:55
Introducing a new 650 V SiC Gate Driver with Improved Robustness and Efficiency
Ralf Dudzek, Fraunhofer Institute, DE

14:10
Hybrid Switch – Novel Optimization of Dynamic efficiency and Inrush current use in 800V battery charging applications
Angel Pavlov, Fraunhofer Institute for Reliability and Microintegration, Germany, DE

14:25
Comparison between 1200V SiC MOSFETs and Hybrid Switches for 800V Electric Vehicle Applications
Ralf Siemieniec, Infineon, Austria

14:40
Hybrid Switch capacitor discharge methods with SiFET-based Hybrid Switch for optimizing surface inrush current
Florian Bieler, Infineon Technologies AG, Germany

14:55
Hybrid Switch capacitor discharge methods with SiFET-based Hybrid Switch for optimizing surface inrush current
Florian Bieler, Infineon Technologies AG, Germany

Conference Room 2

Packaging & Reliability II

Chairperson: Yan Jing, Sanmina-Guadalupe, CN

Chair's opening speech

14:00
Analysis and Study on the Advantages of Low Inductance SiC Power Module Based on Planar Busbar
Jian Ding, Anhui Vincotech Electronics Co., Ltd.

14:15
Advanced Packaging Development for Power Electronics Applications
Peter Kasapoglu, Kyocera Co., Ltd., JP

14:30
Thermal Cycling of power Semiconductor modules and sintered aluminum Substrates
Michael Bruch, Fraunhofer Institute, DE

14:45
Thermal Cycling Reliability Test Method Development System
Wei Ma, Shanghai University, PR

15:00
Mechanical Stress Induced Density and Wetting of Sn substrates Inverter Assemblies Under Thermal Cycling
Ben Ruan, Infineon Technologies AG, CN

Motor Control

Chairperson: Jinhong Kong, Cengal University, CN

13:45
Sensitive Radio Research Parameters Design Method of Tram Motors Based on Sensitive Analysis
Wenjiang Liu, Hefei Institute of Technology, CN

14:00
Efficient Controller Based Controller Design Method for Tram Motors Resistance Parameters Identification
Wenjiang Liu, Hefei Institute of Technology, CN

14:15
Research on Remote Fault Diagnosis and Fault Tolerance Control Strategy of Electric Vehicle Based on Dual Modulation Technology
Xiaoyang Yuan, Hefei Institute of Technology, CN

14:30
A Comprehensive Review of the Longitudinal End Effects in Linear Induction Motors
Weihua Li, Tongji University, CN

14:45
Parameter Identification of Nature Magnetic Synchronous Motor
Jiaqian Liu, Hefei Institute of Technology, CN

15:00
Fault Based Hybrid Plus Observer with Plus Error Estimation Technique of BLDC Motor
Yuanqing Wang, Hefei Institute of Technology, CN

15:15
Resistance Table Control for Vibration and Disturbance Suppression of Tram Driving
Wenjiang Liu, Hefei Institute of Technology, CN

15:30
Optimization Method of Nature Magnetic Synchronous Motor Parameters Designed by Genetic Algorithm
Jiaqian Liu, Hefei Institute of Electrical Engineering, Chinese Academy of Sciences, CN

High Frequency Power Converter

Chairperson: Min Chen, Zhejiang University, CN

13:45
Reducing the Size and Weight of Filter Inductor for MFC in Land Vehicle Applications
Jonas Ki, Schaffner, Switzerland, CN

14:00
Comparative Analysis on Sector Partitioning Methods for Model Predictive Control for Dual-Active Bridge Applications
Yuhao Zhang, Zhejiang University, CN

14:15
Design Signal Models of Nitrogen Phase Shifting Transformer Based on Frequency Domain Analysis
Weiwei Ganga, HK Vacatech LLC, HK

14:30
Research 3D-dimensional Solid connected Micro-inverter Based on Wireless Transmission
Weiheng Sun, Shenzhen, Shenzhen, CN

14:45
Mode Reshaped Chip Controllers for Ultra-Compact Power Converters SiC Power Module
Yuanqing Wang, Shanghai Semiconductor Technology Co., Ltd.

15:00
Improved Sinusoidal Phase Shift Modulation for Dual-Active Bridge Converter Based on Sliding Mode Control
Yuanqing Wang, Hefei Institute of Technology, CN

15:15
Multi-Objective Optimization Design of Bidirectional Series Resonant Converter Based on Genetic Algorithm
Jiaqing Tian, Hefei Institute of Technology, CN

15:30
Fast Changing Ratios for Bidirectional Converters and Three Phase Converters
Weiwei Ganga, Energy Business, HK

Smart Grid & Energy Transmission

Chairperson: Tong Zhu, China Southern Power Grid Digital Power Technology Co., Ltd.

13:45
New Generation Ultra High Power Semiconductor for HVDC Applications
Evgeny Tsyplakov, Hitachi Energy, CH

14:00
Performance Analysis of Bach and Bach Converter Based Solid State Transfer for Energy Storage System
Jianhong Wang, Jiangsu, CN

14:15
Bidirectional Transformer for Next Generation Power Electronics Systems
Ke Li, Zhejiang University of Technology, CN

14:30
Advanced Packages With Power Integrated Circuits
Ken Ong, KOKI Electronics Co., CN

14:45
Chip Embedded Panel and Power Module Technology
Ulrich Scheuermann, Semikron Elektronik GmbH & Co. KG, DE

15:00
Wood Composite Concepts for Power Electronics Packaging and DC MOSFET for High Performance Power Modules
Lin Cheldavoy, Fraunhofer Michigan, USA

15:15
Probability Prediction of Electric Vehicle Charging Load Based on Multi-Factor and Cluster Analysis
Zhiqiang Wei, Hefei Institute of Technology, CN

15:30
Comparative Evaluation of Phase-Shifted and Hybrid Control Strategies for Dual Active Bridge Transformer
Rajesh Kumar Kaushik, Technology, CN

15:45
The Economical Solution of Efficient 200V for Wind Power Integration Based on Power Electronics
Kaiqi Xu, Suzhou Vincotech, JP, ACTIL, CN

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Friday, 26 September, 2025 | SHSC, Hall 5A

Morning Session

09:00 a.m. Conference Room 1

Evolutionary Trends in Power Supply for AI Data Centers

Speaker: Wanzhong Yao, Cengal Technology, CN

Chairperson: Jinhai Jia, Jiangsu University, CN

Coffee Break & Room Change

Parallel Session

10:45 a.m.–12:15 p.m.

Conference Room 1

Special Session: "Power Chiplet" – Ultra-high-power density chiplet platform for future power electronics

Chairperson: Andrew Wu, Institute of Electrical Engineering, Chinese Academy of Sciences, CN

Chair's opening speech

10:55
Power Integration Technology for Next Generation Power Electronics Systems
Ken Ong, KOKI Electronics Co., CN

11:10
Chip Embedded Panel and Power Module Technology
Ulrich Scheuermann, Semikron Elektronik GmbH & Co. KG, DE

11:25
Wood Composite Concepts for Power Electronics Packaging and DC MOSFET for High Performance Power Modules
Lin Cheldavoy, Fraunhofer Michigan, USA

Conference Room 2

Advanced low power Module Design

Chairperson: Jiang Chen, Infineon Technology, CN

Chair's opening speech

10:55
Comparative Evaluation of Phase-Shifted and Hybrid Control Strategies for Dual Active Bridge Transformer
Rajesh Kumar Kaushik, Technology, CN

11:10
The Economical Solution of Efficient 200V for Wind Power Integration Based on Power Electronics
Kaiqi Xu, Suzhou Vincotech, JP, ACTIL, CN

11:25
Thermal Performance Analysis and Design Optimization of Power Module for AC UPS
Jiang Li, Infineon, CN

11:40
MV 2500V7 based 2.5 kW Traction Converter
Kaiqi Xu, Suzhou Vincotech, JP

11:55
Reliability Testing Methods of High Power Semiconductor Capacitors for DC-Link Applications
Ken Nishimura, KEMET, JPN

12:10 a.m. **Lunch Break**