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International Exhibition and Conference for Power Electronics, Intelligent Motion, Renewable Energy and Energy Management

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→ Exchange experiences with power electronics experts and expand your knowledge on current and upcoming industry trends.

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Dates to remember

- → Submission of abstracts before
- → Notification of acceptance on
- → Submission of full paper before

4 March 2024 May 2024 20 June 2024

★ The presentation language is ENGLISH



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The awards will be selected by the Advisory Board from the accepted papers, and will be granted at PCIM Asia Conference 2024.



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Topics of Interest

1. Advanced Power Semiconductors

- 1.1 High Power Semiconductors
- 1.2 MOSFETs, IGBTs, FREDs & Schottkys
- 1.3 Power Modules and Power Hybrids
- 1.4 SiC Devices
- 1.5 GaN Devices
- 1.6 Other Wide Bandgap Devices
- 1.7 Power Supply Control IC and Power Management ICs
- 1.8 Gate Driver and Device Protection
- 1.9 IPM and Power Electronic Building Blocks

2. Packaging and Reliability

- 2.1 Packaging and Interface Technologies
- 2.2 Advanced Cooling Systems
- 2.3 Thermal Management and Simulations
- 2.4 Power Electronic Components Reliability and Life Time Prediction
- 2.5 Power Embedding
- 2.6 High Power Density Designs
- 2.7 Design Automation and Methodology

3. Passive Components and Integration

- 3.1 Higher Frequency and Low Loss Materials & Techniques for Inductors and Capacitors
- 3.2 Planar Inductors and Transformers and Thin Film Magnetic Component
- 3.3 Filters and Passive Integration

4. AC/DC Converter

- 4.1 High Efficiency/High Density Power Converters/Inverters
- 4.2 Resonant and Quasi Resonant Topologies for Power Supplies
- 4.3 Stand-alone Power Supplies (Adapters) and on Board Supplies
- 4.4 New Topologies (Single Switch, Phase Shift, ZVS, ZCS, ZVZCS)

5. DC/DC Converter

- 5.1 DC/DC Converter Topologies for Enhanced Efficiency and Control
- 5.2 Synchronous Rectification
- 5.3 Smart Battery Management Concepts
- 5.4 Point of Load Converters
- 5.5 New Topologies for Distributed Power Supply Systems (Single or Multi- Stage Architecture, ZVS, ZCS, ZVZCS)

6. Digital Power Conversion

- 6.1 PMBus and other Digital Power Control Protocols
- 6.2 Digital Control for Power Converters
- 6.3 Advantages of Digital Power Conversion and Associated Challenges
- 6.4 System on a Chip (SOC)
- 6.5 Energy Harvesting

7. Motor Drive & Motion Control

- 7.1 Home Appliances
- 7.2 Small Power Motor "General Purpose Drive" with Highly Sophisticated Control Strategies and Low Cost Solutions
- 7.3 New Converter/Inverter Types for Single- and Three Phase Systems
- 7.4 Advanced Motor Concepts for Industrial Application and Traction Drives
- 7.5 New Control Architectures DSP, Microcontroller or FPGA
- 7.6 Advanced Sensor Concepts for Motor Drives
- 7.7 Intelligent Motion Control and Architecture

8. High Frequency Power Electronic Converters and Inverters

- 8.1 Thermal Design, Packaging and EMI Issues
- 8.2 Sensors Specific to Power Electronics

(e.g. Voltage, Current, Power, Frequency, Phase, Temperature)

- 8.3 Techniques to Reduce Switching Losses to Improve Efficiency and Reduce Size and Weight
- 8.4 Wireless Power Transfer

9. Automotive Power Electronics and Electrified Transportation

- 9.1 Hybrid / Electric Vehicle
- 9.2 MOSFET, IGBT and SiC Modules in Motor Traction and Propulsion Applications
- 9.3 DC/DC Conversion in Transportation Systems
- 9.4 Bidirectional DC/DC Converters
- 9.5 Electronics for Powertrain and Power Management
- 9.6 Energy Storage and Management, including Battery Types, Super Capacitors and Fly Wheels
- 9.7 DC Circuit Breaker
- 9.8 Charging Station Technology

10. System Reliability

- 10.1 Reliability and Health Management of Power Electronic Components and Systems
- 10.2 Fail-safe and Fault-tolerant Applications
- 10.3 Redundancy Concepts in Power Electronics
- 10.4 Life Cycle Design and Cost Analysis

11. Power Quality Solutions

- 11.1 UPS Systems and Inverters
- 11.2 Active Power Filter (APF), DVR, SVG
- 11.3 Energy Storage System
 - (Battery Technologies, Flywheel, Super (ultra) Capacitors)
- 11.4 Harmonics and Power Factor Correction
- 11.5 Electromagnetic Compatibility and Immunity

12. Smart Grid Power Electronics

- 12.1 Grid Inverter Control
- 12.2 Battery Charging and V2G
- 12.3 Energy Storage System and Control
- 12.4 Micro-Grid
- 12.5 Solid State Transformers
- 12.6 Medium Voltage Multilevel Converters
- 12.7 Modular Multilevel Converters
- 12.8 Novel Converter Topologies
- 12.9 Wind Energy Systems
- 12.10 Solar and Photovoltaic Energy Systems
- 12.11 Communication, Cyber Security and Artificial Intelligence

13. Power Electronics in Transmission Systems

- 13.1 FACTS
- 13.2 Converters for Offshore/Onshore HVDC Links
- 13.3 Power Generation, Transmission and Distribution
- 13.4 DC Grids
- 13.5 HVDC Systems
- 13.6 Digital Twin for Transmission Equipment

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