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PCIM Asia Conference 2021 To Feature Over 50 Papers

Asia's leading fair in power electronics will be coming to Shenzhen's World Exhibition & Convention Center from September 9 – 11, 2021, with its renowned accompanying conference to feature guest speakers' talks on a variety of industry hot topics. [PCIM Asia Conference 2021](#) has already confirmed 52 papers from experts in industry and academia to be used in oral & poster sessions, keynotes, tutorials and more during the event focusing on the latest insights and research within the sector.

Held in Shenzhen for the first time on the fair's 20th anniversary, the PCIM Asia Conference 2021 promises to once again provide a platform for industry professionals in power electronics, intelligent motion, renewable energy and energy management from around the world to connect and share ideas. Experts within these sectors have contributed 52 conference papers on a wide range of topics within the industry.

Key topics covered in this year's conference will include:

- High power devices
- High power density converters
- Power modules
- Dc-dc and ac-dc
- SiC and GaN devices
- Advanced power devices
- Power grid
- Automotive power electronics
- Power devices and reliability
- Power converters and motion control.

For the first time, PCIM Europe conference sessions will be presented at the PCIM Asia Conference in Shenzhen, allowing attendees to acquire industry knowledge exclusively from Europe. The conference will also feature two presentation sessions in Chinese. More information on the aforementioned sessions will be provided on a later date.

The 2021 PCIM Asia Conference will feature a strong line-up of speakers, sharing their expertise through 22 oral presentations and 30 poster sessions. Some highlighted oral presentations and poster sessions are described below.

Topic: DC-DC and AC-DC

Coordinated by: Prof. Jinjun Liu, Xi'an Jiaotong University

Overview: Five presentations within this topic will cover a set of subjects encompassing a wide area of research within key trends in power electronics. These include:

- Power stack design and neutral point current control of three-level active neutral-point-clamped converter (3L-ANPC) to improve the cost-performance and efficiency of the converter.
- Load transient optimization approach for multiphase voltage regulator modules.
- A novel observer for driving of permanent magnet synchronous machine (PMSM) to improve the back electromotive force (BEMF) tracking performance and position estimation accuracy.
- Application of silicon carbide devices in PFC for EV chargers.

Topic: Advanced Power Devices

Coordinated by: Norbert Pluschke, technical director of Greater China, Semikron (Hong Kong)

Overview: This session will introduce reliable parameters of SiC devices from a different angle. Furthermore, a simple Spice model for SiC devices will be shown to integrate these models in simulations.

Topic: Power Devices and Reliability

Coordinated by: Gaosheng Song, Great China Mitsubishi Electric Semiconductor

Overview: This session will focus on how to improve the application reliability of power semiconductors, which includes new materials and new assembly processing of power devices, mathematical modelling and driving optimization design for parallel operation of discrete IGBTs, as well as how to realize transient current balance design for high-voltage full-SiC MOSFET modules in parallel. This will be an ideal session for power electronic R&D managers and hardware engineers to attend.

Topic: SiC and GaN Devices

Coordinated by: Enrique Dede, Smart Induction Converter Technologies

Overview: This session will showcase the latest advancements in WB devices and technologies, in particular SiC MOS transistors, especially in the HV range and SiC diodes as well as the use of GaN devices in motor applications. Design and development engineers who need to improve their products by using more effective semiconductor components and R&D managers interested in learning about the latest WB devices are the target audience.

Topic: Power Converters and Motion Control

Coordinated by: Zhihong Wu, Tongji University

Overview: Industry experts in this field will share their latest findings and achievements, including new measurement techniques to analyze and improve the waveforms of wide-bandgap devices, the application and reliability assessment of smart power module performance, the use of new modulation techniques and filter circuits in aviation, and CPU power supplies.

PCIM Asia Fair And Concurrent Events

Held concurrently with the conference is the PCIM Asia Fair which gathers industry professionals to showcase the latest trends and developments in the power electronics sector, covering a range of power electronics solutions and associated semiconductors, power devices, bus bars, capacitors and more. Recognized as a reputable platform, the exhibition and conference promote industry exchange and development in a professional, international and forward-thinking environment.

PCIM Asia will be held concurrently with the debut edition of Formnext + PM South China. It is jointly organized by Guangzhou Guangya Messe Frankfurt and Shanghai Pudong International Exhibition, with Mesago Messe Frankfurt as a partner.

To find out more about PCIM Asia, please visit www.pcimasia-expo.com or email pcimasia@china.messefrankfurt.com.