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Keynote

- K01 »Hydrogen – Key Element to Achieve Net Zero CO2«**
Jürgen Rechberger, Vice President Hydrogen & Fuel Cell, AVL List, A
- K02 »Power Electronics for a Future Sustainable Society«**
Ichiro Omura, Professor, Kyushu Institute of Technology, J
- K03 »From State of the Art to Future Development Trends of Power Supply«**
Peter Wallmeier, Senior Director, Delta Energy Systems, D

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- 001 New Technologies for Efficient and Integrated GaN Power Devices**
Luca Nela, Nirmana Perera, Remco van Erp, Taifang Wang, Elison Matioli, EPFL, CH
- 002 GaN Power Electronics: From Device to System**
Alex Huang, University of Texas at Austin, USA
- 003 Practical Challenges in the Design of High Density GaN-Based Power Converters**
Robert Pilawa-Podgurski, University of California, Berkeley, USA
- 004 Next Generation GaN-Based Architectures: From 240W USB-C Adapters to 11kW EV On-Board Chargers with Ultra-High Power Density and Wide Output Voltage Range**
Matthias Kasper, Jon Azurza Anderson, Gerald Deboy, Infineon Technologies, A; Michael Haider, Power Electronic Systems Laboratory, CH



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Best Paper Award

Special Session: Cognitive Power Electronics

- 005 The Interplay between Silicon Capability and System Architecture for Cognitive Power Systems**
Nicolas Lehment, Florian Kälber, Frieder Jaspers, NXP Semiconductors, D
- 006 Cognitive Power Electronics 4.0 – An Enabler for Smart Systems**
Martin Schellenberger, Bernd Eckardt, Vincent Lorentz, Fraunhofer Institute IISB, D

007 Cognitive Power Electronics for Smart Drives in Unmanned Aerial Vehicles
Tobias Huf, Georg Roeder, Martin Schellenberger, Fraunhofer Institute IISB, D; Harm-Friedrich Steinmetz, mdGroup, D

008 Modular Ultra-Low-Power IoT-Core – Bridging the Gap between Power Electronics and Distributed Sensor Network
Carsten Brockmann, Alireza Rezaei, Jan Hefer, Applikationszentrum am Fraunhofer IZM, D; Frank Oehler, Markus Eppel, Heinrich Milosiu, Fraunhofer Allianz Vision, D; Jan Hager, Holger Gerstner, Bernd Eckardt, Stefan Matlok, Fraunhofer IISB, D; Samer Al-Magazachi, Technical University of Berlin, D

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Marcus Sonst, Markus Herdin, Rohde & Schwarz International, D

010 Probing Techniques for GaN Power Electronics: How to Obtain 400+ MHz Voltage and Current Measurement Bandwidths without Compromising PCB Layout

Harry Dymond, Bernard Stark, Saeed Jahdi, Yushi Wang, University of Bristol, GB

011 Using Near Field Probes in Electronic Circuits

Arturo Mediano, University of Zaragoza, E

012 How IsoVu Probe Breaks the Barrier of Wide Bandgap Dynamic Testing

Pierre Dupont, Tektronix, F

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014 500 kHz SiC- and GaN-Based Dual Active Bridge with Voltage Conversion between 48 V and 650 V

Patrick Lenzen, Martin Pfof, TU Dortmund University, D

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Philipp Rehlaender, Joachim Böcker, Frank Schafmeister, Paderborn University, D

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018 50 kW Modular V2G SiC Charger Station in Energy Island Microgrids: a Real Use-Case in Madeira Island

Jesús Muñoz-Cruzado, Erika Laporta Puyal, Antonio Miguel Muñoz Gómez, Javier Ballestín Fuertes, Fundación Circe, E; José Francisco Sanz Osorio, University of Zaragoza, E

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Asier Garcia-Bediaga, Ander Avila, Iñigo Zubitur, Alex Sanchez, Alejandro Rujas, Ikerlan Technology Research Centre, E

- 020 *Single-Phase Bidirectional ZVZCS AC-DC Converter for MV-Connected Ultra-Fast Chargers***
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Best Paper Award

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Fabian Nehr, Uwe Scheuermann, SEMIKRON Elektronik, D



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Nikolina Djekanovic, Drazen Dujic, Power Electronics Laboratory, EPFL, CH



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Best Paper Award

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Simon Johannliemke, David Reiff, Volker Staudt, Ruhr-University of Bochum, D

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Nikolas Förster, Till Piepenbrock, Philipp Rehlaender, Oliver Wallscheid, Frank Schafmeister, Joachim Böcker, Paderborn University, D

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Young Researcher Award

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Xiaotong Du, Chengmin Li, Drazen Dujic, Power Electronics Laboratory, EPFL, CH

106 Optimization of a 2 MHz 500 W Compact Wireless Power Transfer System with a Large Voltage Conversion Ratio

Tim Krigar, Martin Pfof, TU Dortmund University, D

107 ZVS Class E2 Wireless Power Transfer System with Self-Resonant Transmission Coils for the Biomedical Application

Hannes Schwan, Gordon Elger, Johannes Pforr, University of Applied Sciences Ingolstadt, D

108 Method to Increase WPTS Robustness to Frequency Splitting and Bifurcation Phenomena

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112 Full SiC Phase-leg Power Module for Airborne DC/AC Power Conversion Applications

Thomas Guillemet, Sébastien Oge, Solenne Hameau, Timothée Frappé, Sylvie Loiseau, Richard Morisse, Thales DMS, F

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Ben Bradel, Fuji Electric, D; Susumu Iwamoto, Aiko Takasaki, Takafumi Uchida, Makoto Isozaki, Yoshiyuki Kusunoki, Yasuyuki Kobayashi, Fuji Electric, J;

- 115** *Using a 4-leg Three Phase Inverter to Connect the AC Grid with a Bipolar DC Grid*
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