

eehe

Agenda / Programm 2017

Electric & Electronic Systems in Hybrid and Electrical Vehicles and Electrical Energy Management

Elektrik & Elektronik in Hybrid- und Elektrofahrzeugen und elektrisches Energiemanagement

**May 17-18, 2017
in Bamberg**

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Agenda

Wednesday 17, May

Simultaneous translation will be provided.

09:00 Welcome / Begrüßung
Bernd Hömberg, Haus der Technik e.V. • Ottmar Sirch, BMW Group • Carsten Hoff, CLAAS KGaA mbH

09:10 Introduction / Einführung
Ottmar Sirch, BMW Group

09:30 eMobility as driver for vehicle connectivity – how the propulsion gets part of the real environment and grows into a comprehensive context
Oliver Maiwald, Continental Automotive GmbH, Senior Vice President Powertrain Technology & Innovation

10:10 Coffee Break / Kaffeepause

Room / Raum: K6/K7		Room / Raum: K3	
1A	Low voltage Energy Storage Dirk Uwe Sauer • Marc Thele	1B	48V Architectures and Components I Friedrich Graf
10:25	Dual 12 Volt Battery Systems – Analysis of Power Capability and Current Distribution considering Battery Type, State of Charge and Connection to the Power Network Daniel Renner, Audi Electronics Venture GmbH	10:25	Coasting Strategies for CO₂ Emission Reduction of PO Hybrid cars André Körner, Hella KGaA Hueck & Co
10:55	The Battery in the Electrical Vehicle System - a Comparison of Technologies Jörn Albers, Johnson Controls Autobatterie GmbH & Co. KGaA	10:55	FEV 48 V Mild Hybrid – Optimization of BRM Operation Strategy in the 48 V Power Net Philip Griefnow, RWTH Aachen University
11:25	48V Lithium-Ion Batteries in Automotive Applications Simon Beau, LG Chem – Europe Automotive Battery Tech Center	11:25	Components, systems and architectures and design tools for Micro up to Full Hybrid, Plug-in-Hybrid and Electric Vehicles Stefan Lauer, Continental Automotive GmbH
11:55	Thermal Analysis of Cooling Effects of Different Cooling Principles in a 48 V Automotive Battery Module Ziyi Wu, FH Aachen / RWTH Aachen	11:55	Boost recuperation machine – 48V e-drive characteristics and future system trends Rainer Peck, Robert Bosch GmbH

12:25 Lunch with Poster Session and Exhibition of Electric Vehicles / Mittagessen mit Postersession und Fahrzeugausstellung

13:55 Recent advancements in battery technologies and battery prices – myth and reality
Dirk Uwe Sauer, ISEA Institut für Stromrichtertechnik und Elektrische Antriebe RWTH Aachen

14:25 Poster Presentations / Poster Präsentationen
Philip Dost, Ruhr-Universität Bochum • Tobias Oeser, TESIS DYNAware GmbH • Stefan Werkstetter, Maxwell Technologies, Inc.

14:55 Coffee Break with Poster Session and Exhibition of Electric Vehicles / Kaffeepause mit Postersession und Fahrzeugausstellung

2A	E/E-Architecture Hartmut Pröbstle • Dirk Balzer	2B	High power storage and charging Vera Lauer • Hans-Georg Herzog
15:25	Opel Ampera-e: Battery and Propulsion Train Manfred Herrmann, Adam Opel AG	15:25	Infrastructural Challenges Marco Jung, Fraunhofer-Institut für Windenergie und Energiesystemtechnik IWES
15:55	Volvo Cars electrical architecture evolution into the next decade Robert Eriksson, Volvo Cars	15:40	The Future of Fast Charging: 800 V Jürgen Mittnacht, Porsche AG
16:25	12/48V power supply system architectures and 48V components Olivier Coppin, Valeo	15:55	Challenges in Battery Charging Dirk Uwe Sauer, ISEA, RWTH Aachen
16:55	E-Systems for Autonomous Driven Vehicles Antoni Ferré, LEAR Corporation	16:10	Discussion / Diskussion Moderation: Vera Lauer • Hans-Georg Herzog

17:25 End of Day 1 / Ende erster Tag

19:00 Evening Reception / Abendempfang

Agenda

Thursday 18, May

Room / Raum: K6/K7		Room / Raum: K3	
3A	Power Electronics Dieter Polenov	3B	Commercial Vehicles Carsten Hoff
08:30	Development of Powertrain Electronics in Hybrid and Electric Vehicles Richard Dixon, IHS Marki	08:30	System design of the electric powertrain of hybrid electric distribution vehicles Johannes Maiterth, RWTH Aachen University
09:00	Characterization, Mission Profile Analysis and Calorimetric Loss Measurement of a SiC Hybrid Module for Main Inverter Application of Electric Vehicles Ajay Poonjal Pai, Infineon Technologies AG	09:00	Urban eTruck Ralf Bartelmeß, Daimler AG
09:30	Application of Spread Spectrum Techniques for the Reduction of Disturbances of Power Electronic Converters Andreas Bendicks, TU Dortmund	09:30	Zero Emission CV – Coming Soon n.n., EvoBus GmbH
10:00	High power density on-board charger based GaN-transistors Manuel Raiman, BMW Group	10:00	GridCON – Concept of a Grid-Connected, Fully Autonomous Electric Agricultural Machine Nicolai Tarasinski, John Deere GmbH & Co. KG

10:30 **Coffee Break with Poster Session and Exhibition of Electric Vehicles / Kaffeepause mit Postersession und Fahrzeugausstellung**

4A	On-board Power Supply for Safety Functions Jan Lichtermann • Marc Thele	4B	Methods & Tools Ludwig Brabetz • Vera Lauer
10:50	Examination of fault-tolerant on-board power supply topologies Fabian Schipperges, Porsche AG	10:50	A universally valid artificial high-voltage network set-up for voltage ripple measurement – a possible solution? Sören Schörle, Daimler AG
11:20	Fault detection and localisation in automotive power supply systems by continuously comparing measured data and simulated data with fault model consideration Michael Kiffmeier, TU Dortmund	11:20	Emulation of a predefined Impedance Behavior for High Voltage Electrical Distribution System Test Benches Luise Drüner, Universität Kassel
11:50	A Novel Interlock System with Interruption-Locating Using Time Domain Reflectometry Marcus Knips, RWTH Aachen University	11:50	High-precision, High-dynamic Emulation of Lithium-Ion Cells for the Entire Battery Life Cycle Matthias Puchta, Fraunhofer Institut für Windenergie und Energiesystemtechnik

12:20 **Lunch with Poster Session and Exhibition of Electric Vehicles / Mittagessen mit Postersession und Fahrzeugausstellung**

13:40	Market development of electric vehicles in China Nicole Steiger, JSC AUTOMOTIVE GmbH	13:40	48 V Traction Drives for the BEV Mass Market Dieter Gerling, Universität der Bundeswehr München
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14:10 **Coffee Break with Poster Session and Exhibition of Electric Vehicles / Kaffeepause mit Postersession und Fahrzeugausstellung**

5A	48V Architectures and Components II Stephan Frei • Hartmut Pröbstle	5B	Energy Management Hans-Georg Herzog • Peter Schmitz
14:20	Control of an Electrical Machine and an Electrical Supercharger Based on 48 V with a Focus on Driving Performance Klaus Lüpkes, Daimler AG	14:20	Decision based coordination of a double voltage network Anton Renner, BMW Group
14:50	Limits and opportunities of the future 12/48 V powernet Stephanie Preisler, Continental Automotive GmbH	14:50	EMR – Energetic Macroscopic Representation Clement Mayet, University Lille
15:20	48V Waterpumps Thomas Wienecke, Rheinmetall Automotive AG	15:20	The graphical representation of complex cybernetic systems Joachim Fröschl, BMW Group

15:50 **Summary and Goodbye / Zusammenfassung und Verabschiedung**
Ottmar Sirch, Carsten Hoff

16:00 **End of Conference / Ende der Veranstaltung**

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