

Elektrik / Elektronik in Hybrid- und Elektrofahrzeugen und
elektrisches Energiemanagement

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

eehe

Programm / Agenda 2015

22. - 23. April 2015 in Bad Boll (near Stuttgart)
www.eehe.de

FB010/31617

1. Tag / Day 1 (22. April 2015)

09:00 Uhr	Begrüßung / Welcome	Carsten Hoff, CLAAS KGaA mbH, Head of Electronic Development CLAAS Group and CEO of CLAAS E-Systems KGaA mbH & Co KG
09:10 Uhr	Einführung / Introduction	Ottmar Sirch, BMW Group, Electrics/Electronics, Vehicle Power Supply and Electrification
09:30 Uhr	Einführung von PHEV und BEV Fahrzeugen bei VW und deren Herausforderungen	Volkswagen AG (angefragt)

10:10 Uhr **Pause mit Postersession und Fahrzeugausstellung / Break with Poster Session and Exhibition of Electric Vehicles**

	Raum 1	Raum 2
	1a Hochvolt-Speicher / High Voltage Energy Storage Dirk Uwe Sauer, ISEA, RWTH Aachen, Carsten Hoff, CLAAS KGaA mbH	1b E/E Architecture: Power Supply Dirk Balzer, Opel AG, Richard Schöttle, Robert Bosch GmbH
10:40 Uhr	The Volvo Cars XC90 PHEV Li-ion battery from a cost and volume perspective as compared to other potential designs Hannes Kuusisto, Volvo Car Corporation	E/E architecture proposals for automated driving and their failure robustness Peter Grabs, Intedis GmbH & Co. KG
11:10 Uhr	HV Batterien – vom Spezialitätengeschäft zur Commodity? Thomas Soczka-Guth, Daimler AG	Development of safe and reliable Powernets for new driving functions like Start-Stopp-Coasting Matthias Horn, Robert Bosch GmbH
11:40 Uhr	Development of a modular, decentralized Battery Management System for lithium/Ion batteries with capacitive cell balancing Andreas Lohner, Cologne University of Applied Sciences	Model-Based On-line Detection of Failure in Automovite Power Supply Systems Alexander Sapidinski, TU Dortmund
12:10 Uhr	Distributed battery management system with sensorless cell temperature measurement Joop van Lammeren, NXP Semiconductors	Fault-Tolerant Non-Isolated and Isolated Automotive DC-DC Converters Michael Gleißner, Universität Bayreuth

12:40 Uhr **Mittagspause mit Postersession und Fahrzeugausstellung / Lunch Break with Poster Session and Exhibition of Electric Vehicles**

	2a	2b
	DC/DC-Wandler / DC/DC Converters Marc Nalbach, Hella KGaA Hueck & Co., Tomas Reiter, Infineon Technologies AG	Energiemanagement / Energy Management Stephan Frei, Technical University Dortmund, Marc Thele, Dr.-Ing. h. c. F. Porsche AG
14:00 Uhr	Development of a compact, high efficiency, bidirectional multi-phase DC/DC-converter for coupling a traction battery to a DC-link with integrated plug-in function for hybrid and electrical vehicles Andreas Lohner, Cologne University of Applied Sciences	Optimized operating strategies to increase energy efficiency and safety due to combined system analysis of the electrical system and battery Daniel Renner, Audi AG
14:30 Uhr	48V DC/DC converter and 48V motor drive – IFX solutions and test results Benno Köppl, Infineon Technologies AG	A new kind of an Energy Management System Joachim Fröschl, BMW Group
15:00 Uhr	Analysis and Test of a Synchronous Rectification scheme for a 400V-12V LLC converter Davide Giacomini, International Rectifier	Cyber Organic System-Model –A New Approach for the Automotive System Design Daniel Adam, BMW Group

15:30 Uhr **Kaffeepause mit Postersession und Fahrzeugausstellung / Coffee Break with Poster Session and Exhibition of Electric Vehicles**

	3a	3b
	Marktentwicklung und Trends / Market Development and Trends Carsten Hoff, CLAAS KGaA mbH, Ludwig Brabetz, University of Kassel	E-Maschinen / E-Motors Hans-Georg Herzog, Technical University Munich, Ottmar Sirch, BMW Group
16:00 Uhr	The trends of tomorrow focusing on E/E Alexander Pröll, Zielpuls GmbH	48V Boost Recuperation System - The way from the alternator to a cost effective electric drive for Hybrid Vehicles Marc Uhl, Robert Bosch GmbH
16:30 Uhr	Determination of Realistic and User-specific Energy Consumption of Current Electric Vehicles Based on Real-world Driving-Profiles and Standardised Measurements Jan Kräck, Institut für Energie- und Umweltforschung Heidelberg GmbH	Operation strategy of a 48V mild-hybrid C/D-segment vehicle for CO² reduction Andreas Hubert, CPT
17:00 Uhr	48V - The new mild hybrid? Daniel Kennel, Schlegel und Partner GmbH	Optimization of an electric rear axle drive for a Formula Student Electric (FSE) racing car Helmut Didar Joseph, Hochschule Augsburg - Starkstrom Augsburg e.V.
17:30 Uhr	Energy and mobility in interaction Ronny Petersohn, TU Dresden	

18:00 Uhr **Abendempfang auf Burg Hohenneuffen / Evening Reception at Hohenneuffen Castle**

	Raum 1	Raum 2
	Übersichtsvortrag 1 / Overview 1: tbd	Übersichtsvortrag 2 / Overview 2: tbd
08:20 Uhr	The environment and alternative mobility concepts / Umwelt und alternative Mobilitätskonzepte Gerhard Hettich, EAST Consulting	Analogie Physisches Bordnetz zu Bionik Markus Ernst, LEONI Bordnetz-Systeme GmbH
	4a Leistungselektronik / Power Electronics Tomas Reiter, Infineon Technologies AG, Marc Nalbach, Hella KGaA Hueck & Co.	4b Entwicklungsmethodik Hartmut Pröbstle, BMW Group, Vera Lauer, Daimler AG
09:00 Uhr	A simulation model to assess the effect of power semiconductor devices on electric vehicle system level performance Fabio Necco, Fairchild Semiconductor	Automated Generation of Distributed System Architectures at the Example of an Electric Power Train Ansgar Dietermann, Technische Universität Dresden
09:30 Uhr	Boosting Power Density in Semiconductor Modules Ole Mühlfeld, Danfoss Silicon Power GmbH	Low cost approach for the emulation of high dynamic loads in a HiL system Leonard Gysen, Universität Kassel
10:00 Uhr	Design and Analysis of Innovative Dual-Sided Cooling of IGBT Modules Jacek Marcinkowski, International Rectifier Corporation	Model-based development method in the field of battery management systems Christian Wagner, Hella KGaA Hueck & Co.
10:30 Uhr	Break with Poster Session and Exhibition of Electric Vehicles / Pause mit Postersession und Fahrzeugausstellung	
	5a Niedervolt-Speicher / Low Voltage Energy Storage Ludwig Brabetz, University of Kassel, Dirk Uwe Sauer, RWTH Aachen	5b Hybrid Peter Schmitz, Ford Forschungszentrum Aachen GmbH, Jan Lichtermann, Robert Bosch GmbH
11:00 Uhr	Study of using a dual voltage battery with a 48V powertrain Paul-Eric Chupin, Renault SAS	48V: a new road map for hybridization Olivier Coppin, Valeo
11:30 Uhr	Beyond Lead Acid – Electrochemical Storage Systems for Modern 12V/48V-Boardnet David Ensling, Varta Microbattery GmbH	Development of driving strategies for a Hybrid Vehicle prototype with torque vectoring Jan Kohlhoff, Schaeffler Engineering GmbH
12:00 Uhr	Blei-, Lithium- oder Hybrid-Batteriesysteme für das 12 Volt-Netz – Topologien und Leistungsfähigkeiten Dirk Uwe Sauer, ISEA, RWTH Aachen	Ungleiche Brüder - Elektrifizierung und ein Vergleich aus der Realität Friedrich Graf, Continental
12:30 Uhr	Bestimmung des Ladezustands von Batterien mittels zustandsraumbasierter Verfahren mit online-Parameterschätzungen Patrick Jansen, Audi Electronics Venture GmbH	Scalable Power for Alternative Drive Train – Higher Voltage versus Higher Current Wolfgang Wondrak, Daimler AG
13:00 Uhr	Mittagspause mit Postersession und Fahrzeugausstellung / Lunch Break with Poster Session and Exhibition of Electric Vehicles	
	6a Komponenten und Sensorik / Components and Sensing Hans-Georg Herzog, Technical University Munich, Ottmar Sirch, BMW Group	6b Laden / Charging Vera Lauer, Daimler AG, Stephan Frei, Technical University Dortmund
14:15 Uhr	Performance Phase Current Sensing for EV/HEV/PHEV Patrick Sullivan, Avago Technologies GmbH	Charging system concept for the XC90 PHEV and electrified vehicles to come Mats Josefsson, Volvo Car Corporation
14:45 Uhr	Customer specific power capacitors for automotive applications Uwe Machenschalk, Epcos AG	Wired and Wireless Charging of Electric Vehicles Marco Jung, Fraunhofer IWES
15:15 Uhr	Energy distribution redesigned: E/E architecture as a chance for innovative electrical systems in vehicles Michael Wortberg, Dräxlmaier Group	On Design Challenges of Dynamic Wireless Charging for Electric Vehicles Faical Turki, Vahle GmbH & Co. KG
15:45 Uhr	Semiconductor solutions for intelligent fuses Thomas Müller, ams AG	Compact, Safe, Compliant and weak Business Case - Challenges of Charging Points Winfried Möll, Bender GmbH & Co. KG
16:15 Uhr	Zusammenfassung und Verabschiedung / Summary and Goodbye Ottmar Sirch, BMW Group, Carsten Hoff, CLAAS KGaA mbH	
16:30 Uhr	Ende der Veranstaltung / End of Conference	

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* Frühbucher bis 31.1.2015 / Early Bird Registration until 31.1.2015

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Highlights

- Posterausstellung / Poster exhibition
- Fahrzeugpräsentation / Car exhibition
- Fachausstellung / Trade show
- Abendevent auf Burg Hohenneuffen /
Evening reception at Hohenneuffen castle

Haus der Technik e.V.

Hollestr. 1
45127 Essen
Deutschland

Telefon: +49 (0) 201/18 03-1
Fax: +49 (0) 201/18 03-269

d.siegel@hdt-essen.de
www.hdt-essen.de

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