

Direction

Prof. Wolf-Rüdiger Canders, Braunschweig University of Technology
Prof. Burghard Voß, IAV GmbH

Conference Committee

Prof. Wolf-Rüdiger Canders (chair), Braunschweig University of Technology
Prof. Burghard Voß (deputy chair), IAV GmbH
Prof. Ludwig Brabetz, (University of Kassel)
Dr. Marco Falco (hofer eds GmbH)
Dr. Jürgen K. H. Friedrich (Daimler AG)
Prof. Holger Hanselka (Fraunhofer-LBF)
Prof. Christoph Herrmann (Braunschweig University of Technology)
Klaus-Jürgen Hetzel (Toshiba Europe GmbH)
Hanno Jelden (Volkswagen AG)
Dr. Bernhard Koonen (TÜV Rheinland Consulting GmbH)
Prof. Ferit Küçükay (Braunschweig University of Technology)
Stefan Lorenz (Continental AG)
Dr. Siegfried Meuresch (Federal Ministry of Economics - BMWi)
Patrick Müller (BMW Group)
Dr. Klaus Prenninger (MAGNA Powertrain)
Dr. Karl-Oskar Proskawetz (ITS Niedersachsen)
Walter Rau
Hans-Jürgen Schneider (ZF Friedrichshafen AG)
Prof. Walter Schumacher (Braunschweig University of Technology)
Prof. Ulrich Seiffert (WiTech Engineering GmbH)
Dr. Guido Weissmann (Lower Saxony Fuel Cell & Battery Technology Initiative)

Dates

February 14, 2012, 08:00 - 18:00
February 15, 2012, 08:00 - 16:45

On the Subject

Recent years have seen a surge in research and development work on the subject of electric drives, with many countries launching national electromobility programs. For this reason, the symposium will provide detailed coverage of the latest solutions in the field of hybrid, plug-in and electric vehicles, including infrastructure.

The 9th Braunschweig Symposium on Hybrid and Electric Vehicles will be taking place from February 14-15, 2012 at Braunschweig Civic Hall. A speakers' dinner is planned for the eve of the event. On the first day of the event, IAV in Gifhorn

will be presenting hybrid and electric vehicles and offering demonstration drives. In the evening, all participants are invited by ITS Niedersachsen to a reception at IAV in Gifhorn.

30 minutes will be allocated for a paper, including 10 minutes for discussion. The conference languages are German and English. Simultaneous interpretation will be provided. The presentations in the conference documentation will be published in English.

Exhibition accompanying the symposium

As part of the exhibition accompanying the symposium, manufacturers, developers, suppliers and operators of systems, devices, components, software and services will be presenting their latest advances in the field of hybrid vehicles, electric vehicles and energy management and have the opportunity to deepen contacts with symposium participants and students. The exhibition will be held in the conference area also reserved for coffee breaks.



Getting to Braunschweig Civic Hall

Registration - 9th Symposium: February 14 - 15th, 2012, Stadthalle Braunschweig

First name _____
Last name _____
Title _____
Company _____
Address _____
Phone, Fax _____
E-mail _____
Signature _____

- Symposium participant: € 840
 Institutes of higher education/civil servants: € 750
 ITS Niedersachsen-members: € 650
 Full-time students (without proceedings) (Please enclose proof of student status. Numbers limited.): free
 I will attend the evening reception.
 I would like to use the bus shuttle.

Enrollment for the symposium:

Please complete the form and return it either by fax or mail to the organizers' office:

Mr. Andreas Redeker
ITS Niedersachsen e.V.
Hermann-Blenk-Str. 17
38108 Braunschweig

Phone: +49 (0)531 35 40 6-73
Fax: +49 (0)531 35 40 6-74

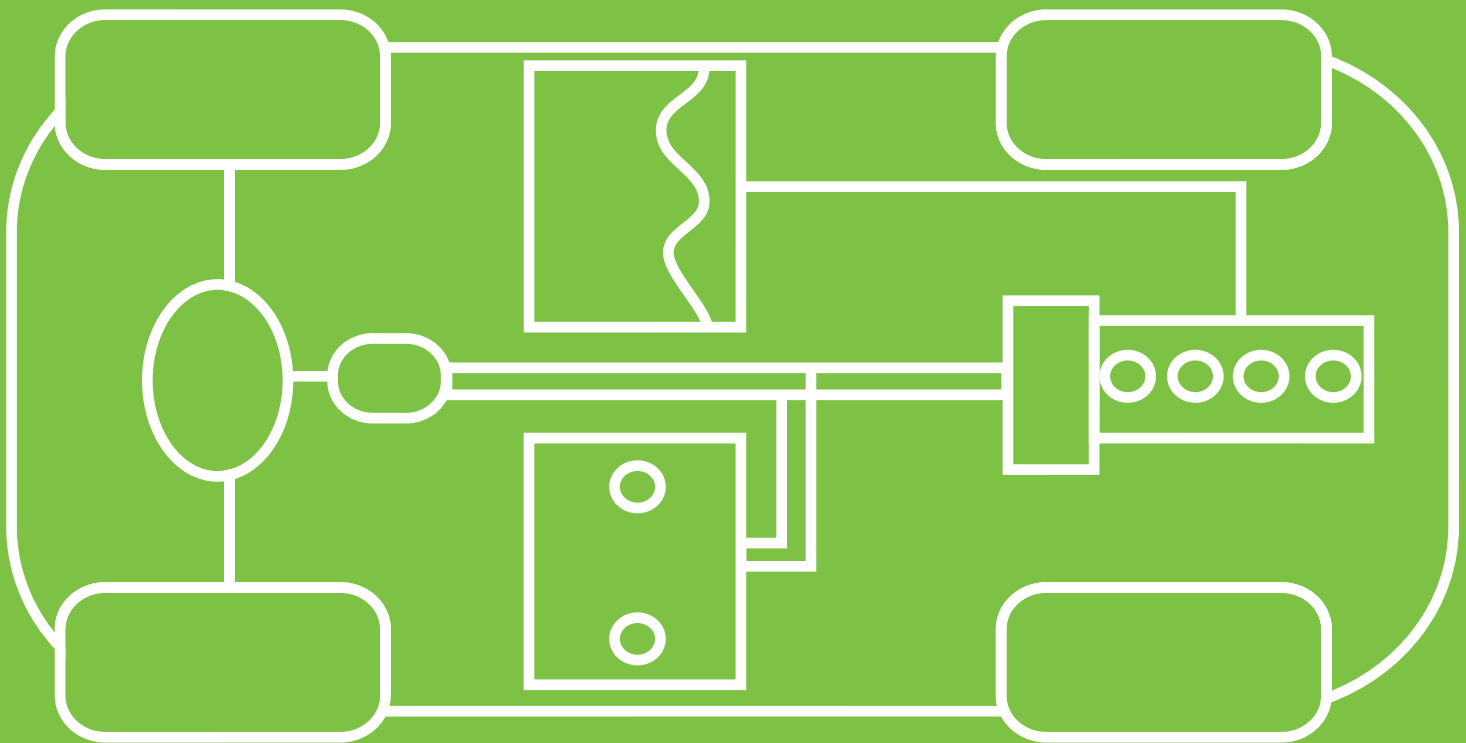
E-mail: andreas.redeker@its-nds.de
www.its-nds.de

ITS Niedersachsen · Hermann-Blenk-Str. 17 · 38108 Braunschweig · Tel. +49 531 3540673
andreas.redeker@its-nds.de · www.hybrid.its-nds.de

9th Symposium: February 14th - 15th, 2012, Stadthalle Braunschweig

Hybrid- und Elektrofahrzeuge/ Hybrid and Electric Vehicles

Mit Fahrevent bei IAV/
With driving event at IAV



Stadthalle Braunschweig
Leonhardplatz
38102 Braunschweig
Germany

automotive engineering **iauv**

 **ITS** Niedersachsen
Intelligent Transport Systems

NFF NIEDERSÄCHSISCHES
FORSCHUNGSZENTRUM
FAHRZEUGTECHNIK

Session 4 Projekt InDrive/InDrive Project**Hanno Jelden (Volkswagen AG)**

16:15 Vorstellung des BMWi-geförderten Projekts InDrive Simulator/
Presentation of the InDrive simulator Project funded by the German federal Ministry of Economics and Technology

Daniel Jänsch, Jana Topalova, Markus Pohle (IAV GmbH)

InDrive Antriebssteuerung/
InDrive powertrain control system

Prof. Dr. Markus Maurer, Karsten Cornelsen, Dr. Bernd Lichte (TU Braunschweig)

Antriebsstrang mit präziser und dynamischer Drehmomentdarstellung/
Powertrain delivering precise and dynamic torque

Prof. Dr. Walter Schumacher, Michael Lux, Michael Homann (TU Braunschweig); Prof. Dr. Henning Meyer, Lars Klimentew, Karsten Kühnkamp (TU Berlin)

Digitale Prototypen erfahren/
Driving digital prototypes

Dr. Klaus von Rügen, Stev Gerson, Stefan Kulawik, Leopold Grosse-Siestrup (IAV GmbH)

17:55 Transfer to IAV Gifhorn
18:30 Driving event
22:30 Transfer back to Braunschweig

To round off the first conference day, IAV invites you to experience several hybrid and electric vehicles. In the evening ITS Niedersachsen invites all participants to a reception at IAV Gifhorn.



February 15th, 2012

08:00 Registrierung/Registration

08:30 Keynote
Elektromobilität mit Lithium-Ionen-Technologie: Chancen, Herausforderungen, Alternativen/
Electro mobility with lithium-ion technology: Chances, challenges, alternatives

Prof. Dr. Martin Winter (Universität Münster)

**Session 5 Komponenten, Applikationen/
Components, Applications****Stefan Lorenz (Continental AG)**

09:00 Ungewöhnliche Topologien elektrischer Maschinen für Hybrid- und Elektrofahrzeuge/
Unusual Topologies of electrical machines for hybrid and electrical vehicles

Prof. Dr. Wolf-Rüdiger Canders, Hardo May, Cornelius Bode (TU Braunschweig)

09:30 Individuelle elektrische Antriebsstranglösungen für Automotive und Non-Automotive/
E-powertrain solutions tailored to automotive and non-automotive applications

Heiko Weller (Bosch Engineering GmbH)

10:00 Konzept - Elektroantrieb für Hybrid- und E-Fahrzeuganwendungen/
Concept - Electric drive system for Hybrid and EV applications

Daniel Prix, Markus Bichler, Manfred Speiser (MAGNA Powertrain)

10:30 Aktive Schwingungsdämpfung im Antriebsstrang von Hybridfahrzeugen/
Active vibration damping in the hybrid-vehicle powertrain

Alfred Tareilus, Hans-Dieter Endres, Ali Oflaz, Hans-Jürgen Schneider (ZF Friedrichshafen AG)

11:00 Kaffeepause/Coffee Break

Session 6 Betriebsfestigkeit/Operational Stability**Klaus-Juergen Hetzel (TOSHIBA Europe)**

11:30 Methoden und Werkzeuge zur Optimierung von Hybrid-Betriebsstrategien/
Methods and tools for optimizing hybrid operating strategies

Lars Fredersdorff, Dr. Bernd Klages, Dr. Michael Zillmer, Dr. Christian Felsch (Volkswagen AG)

12:00	Neuartige Bewertungsmethodik zur Bestimmung des optimalen Antriebssystems für batterieelektrische Straßenfahrzeuge/ Innovative assessment method for identifying the optimum drive system for battery-powered electric road-going vehicles	Philipp Reupold (BMW Group), Michael Martin (TU Chemnitz), Prof. Dr. Hans-Georg Herzog (TU München)
12:30	Optimale EV-Antriebsstrangkonfigurationen/ Optimum EV powertrain configurations	Marjam Eghtessad, Prof. Dr. Ferit Küçükay (TU Braunschweig)
13:00	Optimierung von Wärmemanagementmaßnahmen für HEV durch die Kombination von Simulation und HiL-Motorprüfstand/ Combining simulation and HiL engine test bench for optimizing heat-management measures in HEVs	Benjamin Tilch, Thorsten Reimers, Mirko Schulze, Prof. Dr. Peter Eilts (TU Braunschweig)
13:30	Mittagspause/Lunch	

Session 7	Betriebssicherheit/Operational Reliability	Prof. Dr. Burghard Voß (IAV GmbH)
14:30	Eine kostengünstige Methode zur Lagerfehlererkennung in Elektroantrieben/ A cost-effective method for detecting bearing faults in electrical drives	Florian Dräger, Prof. Dr. Ludwig Brabetz, Dr. Mohamed Ayeb, Andrea Flach (Universität Kassel)
15:00	Drehmomentbeobachter für sichere elektrische Achsantriebe/ Torque monitor for reliable electric axle drive systems	Prof. Dr. Ansgar Ackva, Harald Wießmann (Hochschule Würzburg-Schweinfurt) Dr. Marco Falco, Christian Kuschnarew (hofer eds GmbH)
15:30	Bewertung der fahrdynamischen und energetischen Rekuperationsgüte/ Figures of merit for driving dynamics and energy recovery of regenerative braking	Ferdinand Wiesbeck, Prof. Dr. Markus Lienkamp (TU München)
16:00	Entwurf und Umsetzung eines durchgängigen Sicherheitskonzeptes gemäß ISO26262 auf Basis eines Architekturmodells am Beispiel der Serienentwicklung eines Antriebsteuergerätes für Elektrofahrzeuge/ Draft and realization of an integrated safety concept in compliance with ISO 26262 on the basis of a model architecture using the example of developing a powertrain control unit for electric vehicles	Dr. Andreas Abele, Christoph Wienold (Continental Automotive GmbH)
16:30	Schlusswort/Concluding Remarks	Prof. Dr. Ulrich Seiffert (WiTech Engineering GmbH)

Cancellation: Participation may be canceled free of charge up to 21 days before the event commences. 50% of the attendance fee will be charged for cancellations received after this time. We will charge the full attendance fee for any participation canceled on the actual day of the event. Cancellation must be made in writing. Event cancellation and changes: The organizer shall be entitled to cancel an event without stating reasons. In this case, the full attendance fee will be reimbursed. No further claims may be made. The organizer reserves the right to change the conference program provided such does not affect the event's overall character.

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