

**7th Braunschweig Symposium  
Hybrid Vehicles, Electric Vehicles and Energy Management  
February 24 and 25, 2010**

Please detach and return to the organizers' office:

**Fax number: +49 (0)531 35406-74**

Refer to rear panel for further details.)

I hereby enroll for the symposium:

- Symposium participant** 750,00 Euro
- Institutes of higher education / civil servants** 650,00 Euro
- ITS Niedersachsen-members** 550,00 Euro
- Full-time students (without proceedings)** free  
(Please enclose proof of student status. Numbers limited.)
- I will be taking part in the evening reception on 02-24-2010.**
- I would like to use the bus shuttle.**

Last name \_\_\_\_\_

First name \_\_\_\_\_

Title \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone \_\_\_\_\_

FAX \_\_\_\_\_

E-mail \_\_\_\_\_

City, Date \_\_\_\_\_

Signature \_\_\_\_\_

**Information on Braunschweig Civic Hall**

Information on Braunschweig Civic Hall and how to get there may also be found on the Internet at:  
<http://www.stadthalle-braunschweig.de/index.php?id=40>



Leonhardplatz, 38102 Braunschweig

**Demonstration and evening reception on 02-24-2010**

Presentations and driving demonstrations of hybrid vehicles are planned for the afternoon of the first symposium day at IAV GmbH in Gifhorn. In the evening of the first event day, all symposium participants are invited to attend an evening reception there.



Rockwellstr. 3, 38518 Gifhorn

**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.

**Language**

Speakers will be delivering their presentations either in German or English. Simultaneous interpretation from German to English will be provided. The presentations in the conference documentation will be published in English.

**Contact details of event organizers**

Andreas Redeker  
ITS Niedersachsen e.V.  
Hermann-Blenk-Str. 17, D-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](mailto:andreas.redeker@its-nds.de)  
www: <http://www.its-nds.de/>

**Symposium focus**

The availability of petroleum-based fuel is diminishing. The CO2 aspect is also demanding improvements to present-day drive systems as well as the intensive investigation of alternatives. Solutions involving hybrid and electric drive technologies and their efficient energy management systems are of particular interest. In addition to the technical concept, it is also necessary, in particular from the aspect of consumer and ecological demands, to find suitable ways of minimizing concept-related drawbacks and of optimizing the benefits of the hybrid and electric drive system in terms of energy consumption, emissions, power profile, efficiency, reliability, safety, comfort and integration of the vehicle driver. This series of symposia is intended to bring into focus and promote the development of efficient vehicle drive systems based on the combined use of combustion engines, electric drives, systems for storing and generating electrical energy as well as the necessary torque and speed converters, including open and closed-loop control electronics.

**7th Braunschweig Symposium  
Hybrid Vehicles, Electric Vehicles  
and Energy Management**

February 24 and 25, 2010

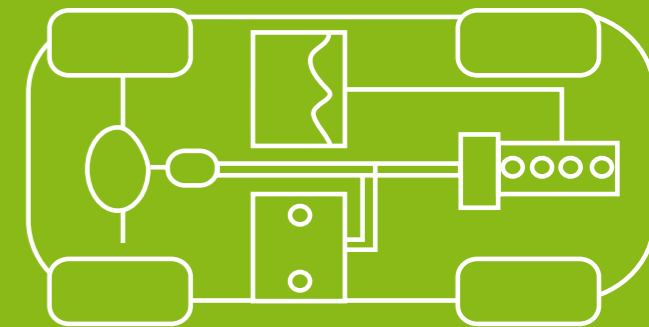
Braunschweig Civic Hall

Leonhardplatz

D-38102 Braunschweig

**With simultaneous interpretation and driving event at IAV**

<http://hybrid.its-nds.de>



## Wednesday, February 24, 2010

- 8 a.m. Registration of participants
- 8.45 a.m. Welcoming Address  
Prof. Dr. Wolf-Rüdiger Canders (TU Braunschweig)
- 9 a.m. Keynote  
Alternative Vehicle Drives – Potentials and Challenges  
Prof. Dr. Jürgen Lehold (Volkswagen)

### Vehicle Concepts

Chair: Dr. Burghard Voß, IAV

- 9.30 a.m. New Concepts for Stabilizing Vehicle Electrical Systems  
Thorsten Bürger (Continental)
- 10 a.m. Integrated Energy Storage System for Micro Hybrid Applications  
Abhishek Bhat (University of Michigan)
- 10.30 a.m. Looking at Technologies in the Hybrid Powertrain  
Dr. Andreas Lange (Voith Turbo)
- 11 a.m. Coffee Break

### Energy Storage Systems

Chair: Dr. Bernhard Koonen, TÜV Rheinland Consulting

- 11.30 a.m. Electric Vehicle Batteries – Requirements and Status  
Dr. Peter Lamp, Elmar Hockgeiger, Sebastian Reischl, Dr. Sebastian Scharner (BMW)
- 12 noon Modeling and Simulating Lithium-Ion Batteries for Hybrid and Electric Vehicles  
Peter Caselitz (Fraunhofer IWES)
- 12.30 p.m. Storage System Protection: Safety and Monitoring Technology for a Lithium-Ion Energy Storage System for Hybrid Vehicles  
Michael Keller, Hans-Peter Werner, Michael Schiemann, Dr. Peter Birke (Continental)
- 1 p.m. LithoRec – On the Way to „Intelligent“ Traction Battery Recycling  
Prof. Dr. Arno Kwade (TU Braunschweig)

- 1.30 p.m. Lunch Break

### Energy Management

Chair: Prof. Dr. Wolf-Rüdiger Canders, TU Braunschweig

- 2.30 p.m. Energy Management in Hybrid Commercial Vehicles with a Focus on Thermal System Behavior  
Dr. Klaus Prenninger, Josef Hager, Martin Winter (MAGNA Powertrain), Martin Ackerl (TU Graz)
- 3 p.m. Processes and Principles for Precision Torque and Safe Torque in Hybrid Vehicles  
Christoph Därr, Dr. Marco Falco, Christian Kuschnarew (hofer eds)

- 3.30 p.m. Optimizing Requirements on Parallel Hybrid Drives  
Marjam Eghtessad, Markus Fugel, Prof. Dr. Ferit Küçükay (TU Braunschweig)

- 4 p.m. Coffee Break

### Infrastructure

Chair: Martin Sattler, ZF Sachs

- 4.30 p.m. Next generation mobility – unlimited range with pure electrical cars  
Amit Yudan (Better Place)
- 5 p.m. Electromobility - Inductive Energy Transfer  
Wilfried Nietschke (IAV)
- 5.30 p.m. Transfer to IAV GmbH in Gifhorn
- 6 - 10.30 p.m. Evening reception and driving demonstration at IAV GmbH
- 10.30 p.m. Return transfer to Braunschweig Civic Hall

## Thursday, February 25, 2010

- 8 a.m. Registration of participants

### Vehicle Concepts

Chair: Prof. Dr. Ludwig Brabetz, Universität Kassel

- 8.30 a.m. BlueZero – One Vehicle Architecture, Three Alternative Drives  
Peter Lehmann, Uwe Skrzypek (Daimler)
- 9 a.m. The Hybrid Drive in the BMW ActiveHybrid X6  
Michael Krauß (BMW)
- 9.30 a.m. Opel Astra with 3-Cylinder Turbo CNG Hybrid Drive  
Uwe Rüd (Opel)
- 10 a.m. The Powertrain in the Touareg Hybrid  
Dr. Bernd Stiebels, Dr. Kai Philipp, Dr. Jörg Rieling (Volkswagen)
- 10.30 a.m. The New Toyota Prius Hybrid System  
Johan De Backer (Toyota Motor Europe), Hideaki Yaguchi (Toyota Motor Corporation)
- 11 a.m. Coffee Break

### Drive Components

Chair: Dr. Heinz Schäfer, hofer eds

- 11.30 a.m. InGA Project: Integrated Power Electronics for Hybrid Vehicles (HEV)  
Immo Koch, Nicolai Lescow, Prof. Dr. Wolf-Rüdiger Canders (TU Braunschweig), Andreas Schießl, (Continental), Dr. Markus Thoben, Tao Hong (Infineon Technologies), Kai Kriegel (Siemens), Dr. Christian Mertens (Volkswagen)
- 12 noon Lithium-ion for hybrid vehicles and electric vehicles: ready for mass market introduction!?  
Karl-Heinz Putz (MAGNA Steyr)

- 12.30 p.m. DENSO modular approach for HEV/EV power electronics  
Jeroen De Rycke (DENSO)

- 1 p.m. Simulation and Economic Analysis of a Bus with Serial Hybrid Drive in Comparison to Conventional Diesel Buses  
Dr. Dr. Harald Neudorfer (TSA, TU Darmstadt), Felix Franz (TU Darmstadt)

- 1.30 p.m. Lunch Break

### Battery

Chair: Dr. Guido Weißmann, Lower-Saxony Fuel-Cell Initiative

- 2.30 State of Art in Lithium-Ion Batteries for Electric Road and Hybrid Vehicles  
Dr. Klaus Brandt (GAIA Akkumulatorenwerke)
- 3 p.m. Compact and Resource-Saving SCiB Rechargeable Battery Technology for HEV and EV Application  
Dr. Shinichiro Kosugi, Dr. Norio Takami, Dr. Keizoh Honda (Toshiba)
- 3.30 p.m. Battery Challenges for Electric Road and Hybrid Vehicles  
Dr. Christian Rosenkranz, Dr. Christian Kuper, Dr. Uwe Köhler (Johnson Controls Saft Advanced Power Solutions)
- 4 p.m. Closing Address  
Prof. Dr. Ulrich Seiffert (TU Braunschweig)

Changes to the program cannot be ruled out.



### Symposium documentation

The symposium documentation is in English and will be handed out to participants on registration.

### Attendance fee

The attendance fee covers participation in the symposium, admission to the symposium exhibition, the symposium documentation, refreshment and lunch breaks as well as participation in the demonstrations and the evening reception at IAV GmbH in Gifhorn.

The attendance fee will not be reimbursed for cancellations received after January 17, 2010. A substitute participant, however, may be named.

The attendance fee includes statutory value-added tax.

### Enrollment for the symposium

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

**FAX reply: +49 (0)531 35 40 6 -74**

Andreas Redeker, M.A. +49 (0)531 35 40 6 -73

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

ITS Niedersachsen e.V.

Hermann-Blenk-Straße 17

D-38108 Braunschweig

### Further information

You will find information about the symposium by logging on to <http://hybrid.its-nds.de>

ITS Niedersachsen e.V.  
Herrn Andreas Redeker  
Hermann-Blenk-Straße 17  
D-38108 Braunschweig