

## Registration (Fax Reply)

To: ECPE e.V.  
Att.: Ingrid Bollens

Fax: +49 (0)911 / 81 02 88 – 28

Register before **26 September 2008**

### Participation fee:

- .. **€530,-** (plus 19 % VAT)
- .. **€395,-** (plus 19 % VAT) for university members  
The fee includes dinner, lunch, coffee/soft drinks  
and seminar handouts.
- .. **€120,-** (plus 19 % VAT)  
for students (shortened seminar package)

With the confirmation of the registration you will receive the invoice.

In case of cancellation after 26 September 2008 or non-attendance 50 % of the participation fee is payable.

Three participants from each ECPE member company free of charge. Allocation in sequence of registration.

Sender:

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title, given name, name

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company, department

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full address

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phone, fax

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e-mail

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date, signature

## Organisational information

Organiser: ECPE e.V.  
90443 Nürnberg, Germany  
[www.ecpe.org](http://www.ecpe.org)

Chair of seminar: Martin Maerz, Fraunhofer IISB  
Eckhard Wolfgang, ECPE e.V.

Organisation: Ingrid Bollens, ECPE e.V.  
+49 (0)911 / 81 02 88 – 10  
[ingrid.bollens@ecpe.org](mailto:ingrid.bollens@ecpe.org)

Place of seminar: Mercedes Benz Werk Sindelfingen  
Gate 1, Building 11  
(Bildungszentrum)  
71059 Sindelfingen (Stuttgart)



Further information (hotel list and maps) will be provided after registration.



**ECPE European Center for Power Electronics e.V.**

**ECPE - HOPE Symposium  
Automotive Power Electronics**  
**- High Density Power Electronics  
for Hybrid Traction**



**7 - 8 October 2008**  
**Mercedes Benz Werk Sindelfingen**  
**Stuttgart-Sindelfingen, Germany**

**DAIMLER**



EUROPEAN  
POWER  
ELECTRONICS  
AND  
DRIVES



**Fraunhofer** Institut  
Integrierte Systeme und  
Bauelementetechnologien

## Introduction

# ECPE - HOPE Symposium Automotive Power Electronics - High Density Power Electronics for Hybrid Traction

7 - 8 October 2008  
Stuttgart-Sindelfingen, Germany

The automotive industry is a key driver for power electronics. This is due to the special boundary conditions and requirements in automotive applications like harsh and high temperature environments, high reliability, and cost pressure. The high production volumes on the other side justify the initiation of new technology steps.

The seminar covers automotive power electronics for high voltage drivetrain applications (hybrid traction, fuel cell and full electric vehicles) as well as for lower voltage applications like auxiliary drives for power steering, water or oil pumps, etc.

Results from the European HOPE research project will be presented which is funded by the European Commission in the 6<sup>th</sup> Framework Programme. In the 2<sup>nd</sup> part of the symposium, further research projects in Europe in the field of automotive power electronics will be presented.

Dr. Martin Maerz (Fraunhofer IISB) will chair the symposium together with Prof. Eckhard Wolfgang and Thomas Harder (ECPE). All presentations and discussions will be in English.



The HOPE Project is co-funded by the European Commission under its Sixth Framework Programme – contract number FP6 - 019848

## Programme

### Tuesday, 7 October 2008

10:00	<b>Start of Registration</b>
10:20	<b>Opening, Welcome Address and Introduction</b> T. Harder (ECPE), J. Mittnacht (Daimler)
10:45	<b>Powertrain Electrification at Volkswagen</b> R. Plikat, Volkswagen (D)
11:15	<b>Kinetic Energy Recovery System for F1: Hints on the Electrical Solution</b> G. Catona, Centro Ricerche Fiat (I)
11:45	<b>General Requirements on Quality and Reliability from the View of an OEM</b> W. Wondrak, Daimler (D)
12:15	<b>Lunch</b>
13:15	<b>Intelligent Testing based on Mission Profiles</b> G. Coquery, INRETS (F)
13:45	<b>Reliability of High Temperature Electronics in PCB Technology</b> M. Rittner, Robert Bosch (D)
14:15	<b>High Temperature Control Board</b> A. Rekofsky, Continental (D)
14:45	<b>Coffee Break</b>
15:15	<b>Reliability of Today's Power Module Technologies</b> A. Roth, Fraunhofer IISB (D)
15:45	<b>Robustness Validation</b> E. Wolfgang, ECPE (D)
16:15	<b>ECPE Automotive Power Electronics Roadmap</b> M. Maerz, Fraunhofer IISB (D)
16:45	<b>Panel Discussion Impact of Automotive Power Electronics on Industrial Applications – Synergies and Competition</b>
17:45	<b>End of 1<sup>st</sup> Days Programme</b>
19:30	<b>Dinner at Restaurant „Sindelfinger Hof“</b> Vaihingerstrasse 14, 71063 Sindelfingen, (+49 (0)7031 611 0)

## Programme

### Wednesday, 8 October 2008

8:30	<b>IML Mechatronic Packaging Technology, an Innovative Solution for Automotive Power Electronics</b> J.M. Morelle, Valeo (F)
9:00	<b>New Technologies for Liquid-Cooled Power Modules</b> A. Schletz, Fraunhofer IISB (D)
9:30	<b>High Temperature Current Measurement in Automotive Power Electronics</b> F. Grecki, W. Koczara, Warsaw University (PL)
10:00	<b>Coffee Break</b>
10:30	<b>Power Electronics Building Blocks with SiC Devices and Advanced Cooling</b> K. Kriegel, Siemens CT (D)
11:00	<b>High Temperature Gate Drive for SiC-JFETs</b> S. Waffler, ETH Zurich (CH)
11:30	<b>Perspectives of Inverter Integration in Vehicle Powertrains</b> A. Schmidhofer, Magna Steyr (A)
12:00	<b>General Discussion</b>
12:15	<b>Lunch</b>
<b>Information on Current Research Projects in Europe:</b>	
13:15	<b>HYSYS: Fuel Cell Vehicle System Components</b> (EC - FP6) J. Wind, Daimler (D)
13:45	<b>HI-CEPS: Highly Integrated Combustion Electric Propulsion System</b> (EC - FP6) Centro Ricerche Fiat (I)
14:15	<b>HyHEELS: Hybrid High Energy Electrical Storage</b> (EC - FP6) R. Knorr, Continental (D)
14:45	<b>Coffee Break</b>
15:15	<b>MOVEO – A French Initiative on Power Mechatronics</b> G.-M. Martin, Valeo (F)
15:45	<b>InGA: Power Electronics Integration in the Gearbox/Drivetrain</b> (German BMBF) K. Kriegel, Siemens CT (D)
16:15	<b>End of the Symposium</b>