

Registration (Fax Reply)

To: ECPE e.V.
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Register before **23 March 2009**

Participation fee:

- €530,- *
 - €395,- * for university members
- The fee includes dinner, lunch, coffee/soft drinks and a CD with the seminar presentations. A printed version of the seminar handouts is available on request (€42,- *).
- €120,- * for students (shortened seminar package)

With the confirmation of seminar registration you will receive the invoice. (* plus 19 % VAT)
In case of cancellation after 23 March 2009 or non-attendance 50 % of the participation fee are payable.

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

Sender:

title, given name, name

company, department

full address

phone, fax

e-mail

date, signature

Organisational information

Organiser: ECPE e.V.
90443 Nuremberg, Germany
www.ecpe.org

Chairs of seminar: Prof. Dr.-Ing. Rainer Marquardt
Bundeswehr-University Munich
Prof. Dr. Hans-Georg Herzog
Technical University of Munich

Organisation: Ingrid Bollens, ECPE e.V.
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Place of seminar: Maritim Hotel Munich
Goethestrasse 7
80336 Munich, Germany



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

DRAFT



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

ECPE Seminar

More Electric Vehicles

**30 – 31 March 2009
Maritim Hotel
Munich, Germany**



Introduction

ECPE Seminar More Electric Vehicles

30 – 31 March 2009
Munich, Germany

The electrification of vehicles in the drivetrain and in auxiliaries is not only a hot topic in the field of passenger cars but also in commercial vehicles. Apart from the improvement of energy efficiency one often gets additional benefits in these commercial applications, e.g. more flexibility and better control of auxiliary equipment or the availability of a power socket on-site.

But the challenging requirements in automotive applications like harsh and high temperature environments and high reliability get even worse. Additionally, a very long lifetime of 10-20 years is required in many commercial applications in construction, agriculture and forestry.

The seminar focuses on more electric commercial vehicles in various applications:

- On-road: bus, light & heavy truck, collection vehicle
- Off-road: construction, agriculture and forestry
- More electric aircraft
- More electric ship

The seminar is chaired by Prof. Dr. H.-G. Herzog (TU Munich) and Prof. Dr. R. Marquardt (UniBW Munich) together with Thomas Harder and Jochen Koszescha (ECPE). All presentations and discussions will be in English.

Programme

Monday, 30 March 2009

9:30 Start of Registration

10:00 **Welcome, Opening**
T. Harder, ECPE e.V.

10:15 **More Electric Vehicles – Automotive (EVs, PHEVs, V2G) and Commercial Vehicles**
? NN, Daimler (Aktion TH)

Components of Vehicle Electrification

10:45 **Drives**
State of the Art, Potentials and Trends
H.-G. Herzog, Tech. Univ. Munich

11:15 **Power Electronics**
State of the Art, Potentials and Trends
R. Marquardt, Univ. of German Army Munich

11:45 **Energy Storage**
State of the Art, Potentials and Trends
? NN, Saft(Aktion TH/JK)

12:15 Lunch

MEV: On-Road Applications

13:30 **Hybrid Urban Microbus**
NN, (Aktion TH)

14:00 **Hybrid Bus**
NN, MAN Munich (Aktion RM)

14:30 **Delivery Van/Light Trucks**
NN, Daimler (Aktion TH)

15:00 Coffee Break

15:30 **Drive Cycles of Delivery Vans (HyTrans)**
NN, Ricardo (Aktion TH)

16:00 **Auxiliary Equipment in Heavy Truck Appl.**
NN, Univ. Karlsruhe (Aktion HGH)

16:30 **Collection Vehicles**
NN, Volvo (Aktion TH)

17:15 **End of 1st Day**

19:30 Dinner

Programme

Tuesday, 31 March 2009

MEV: Off-Road Applications

09:00 **System Integration and Energy Efficiency of More Electric Off-Road Vehicles**
NN, Univ. Karlsruhe ???

09:30 **Hybrid Drive Systems for Industrial Applications**
F. Böhler, Heinzmann

10:00 **Diesel-Electric Trucks with Drive Power in the MW Range**
O. Fenker, Liebherr Biberach

10:30 Coffee Break

11:00 **Hybrid Powertrain of Mobile Work Machines**
D. Schrägle, Sensortechnik Wiedermann

11:30 **Power Electronic System for Auxiliaries in Agriculture and Forestry Vehicles**
K. Backhaus, Semikron

12:00 **Agriculture Vehicles**
NN, John-Deere (Aktion JK)

12:30 Lunch

More Electric Aircraft

13:30 **Technology and trends in More Electrical Aircraft**
L. Faleiro, Liebherr Aerospace

14:00 **Power Electronic Systems in Aircraft**
? A. Tardy, Thales (Aktion JK)

More Electric Ship

14:30 **Part 1 (Powertrain, On-Board Network, Power Supply)**
ABB (Aktion RM)

15:00 **Part 2 (Powertrain, On-Board Network, Power Supply)**
Siemens (Aktion RM)

15:30 Wrap up, Final discussions

16:15 Optional lab tour (1 hour) at Technical University Munich, Institute of Energy Conversion Technology