

Registration (Fax Reply)

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

Fax: +49 (0)911 / 81 02 88 – 28

Register before **9 March 2006**

Participation fee: € 480,-- * plus 16 % VAT
€ 380,-- for university members
The fee includes dinner, lunch
and coffee/soft drinks, seminar
handouts. With the confirmation
of seminar registration you will
receive the invoice.

* 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

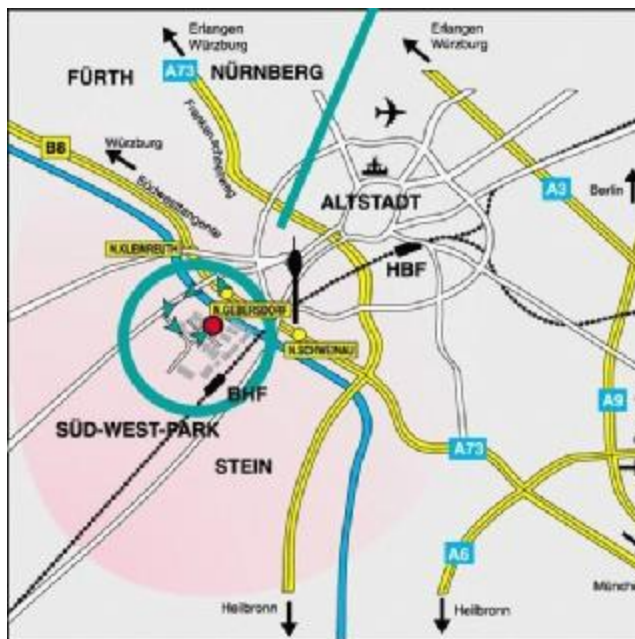
Organisational information

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

Chair of seminar: Prof. A. Lindemann,
Magdeburg University
Thomas Harder, ECPE e.V.

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

Place of seminar: Süd-West-Park Conference Centre
Nürnberg, Germany



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



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

SiC User Forum – Potential of SiC in Power Electronic Applications

**in the frame of the
ECPE Annual Event 2006**

**14 – 15 March 2006
Süd-West-Park Conference Centre,
Nürnberg, Germany**

**in cooperation with
Otto-von-Guericke-Universität
Magdeburg**

Introduction

SiC User Forum

14 - 15 March 2006
Nuremberg, Germany

Although long-awaited Silicon Carbide devices nowadays are in production, their large-scale application in power electronic converters still seems to take time. This is the motivation of ECPE to arrange a SiC User Forum: It is intended as a platform to share ideas and experience, to discuss and find out which power electronic systems are predestinated for usage of SiC – i. e. where it leads to major advantages – and how to appropriately design-in those novel, almost ideal but also challenging components.

The program of the User Forum comprises technical presentations of renowned experts in the field, covering various typical applications where SiC converters are currently or might in near future be introduced. This topic is complemented with device and circuit related presentations, giving a technological insight into the backgrounds relevant for the aforementioned system designs. Forum sessions offer the opportunity to in depth discuss with the speakers and additional invited experts, aiming at approaches to exploit the high potential of SiC and supporting its beneficial introduction in power electronic systems.

Prof. Andreas Lindemann (Otto-von-Guericke-Universität Magdeburg, D) will chair the User Forum together with Mr. Thomas Harder (ECPE). All presentations and discussions will be in English.

Please visit the Tabletop Exhibition of ECPE Competence Centers at the venue on Wednesday, 15 March 2006 (10:00 – 15:00h)

Program

Tuesday, 14 March 2006

- 08:30 Registration
- 09:00 Opening/Welcome address
L. Lorenz, T. Harder (ECPE)
- 09:15 User Forum – Potential of SiC in Power Electronic Applications: Motivation and Overview
A. Lindemann (University Magdeburg)

SiC Power Electronic Systems

- 09:30 Use of SiC Components in Power Electronic Systems – Overview
J. W. Kolar (ETH Zurich, Switzerland)

Low Voltage Systems

- 10:00 The Benefits and Limitations of SiC Diodes in High-Density AC-DC Power Supplies
A. Skinner/A. Lefedjiev (Lambda, U.K.)

10:30 Coffee break

- 11:00 Variable Speed Drives with SiC Power Converters
P. Ehrhart (Magnet-Motor, Germany)

- 11:30 Can SiC Replace Si LDMOS in High-Power-High-Frequency Applications for Basestation Power Amplifiers?
T. Rödle (Philips Semiconductors – Innovation Centre RF, The Netherlands)

High Voltage Systems

- 12:00 SiC Converters in Energy Generation and Supply
R. Bassett (Areva T&D, United Kingdom)

12:30 Lunch

High Temperature Systems

- 14:00 Approaches with SiC facing the Challenges of Power Electronics in the More Electric Aircraft
H. Morel (CEGELY, France)

14:30 Forum

- a) Introduction
- b) Automotive Power Electronics with SiC - Systems, Requirements, Approaches
- c) System Review

Program

Forum: Moderator: **A. Lindemann**

Podium: Speakers and **B. Piepenbreier** (U Erlangen), **U. Schäfer** (U Stuttgart), **Y. Tadros** (Daimler Chrysler), **E. Wolfgang** (Siemens CT)

16:00 Coffee break

SiC Device Technology

- 16:30 Circuit Technology with SiC Devices
T. Reimann (ISLE, Germany)

- 17:00 Performance of SiC Devices in Modules
M. Wölz (Infineon Technologies, Germany)

17:30 End

20:00 Dinner

Wednesday, 15 March 2006

- 09:00 SiC-Substrates for Power Electronic Devices
R. Eckstein (SiCrystal, Germany)

- 09:30 A SiC Merged pn-Schottky Diode with Excellent Surge Current Capability – a Milestone in SiC Power Device Robustness
R. Rupp (Infineon Technologies, Germany)

- 10:00 SiC Transistors – Characteristics, Technology, Development Status and Outlook
P. Friedrichs (SiCED, Germany)

10:30 Coffee break

11:00 Forum

Moderator: **A. Lindemann**

Podium: Speakers and **M. Hallenberger**, (Infineon), **W. Hofmann** (TU Chemnitz),

J. Millan (Centro Nacional de Micro-electronica), **B. Piepenbreier** (U Erlangen), **U. Schäfer** (U Stuttgart), **Y. Tadros** (Daimler Chrysler), **E. Wolfgang** (Siemens CT)

12:30 Lunch