Registration (Fax Reply)

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

Fax: +49 (0)911 / 81 02 88 – 28

Register before **28 June 2006**

Participation fee:

- **€ 480,-***
- **€ 380,-*** for university members
  The fee includes dinner, lunch, coffee/soft drinks and seminar handouts.
- **€ 120,-*** for students (shortened seminar package)

With the confirmation of seminar registration you will receive the invoice. (* plus 19,6 % VAT)

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

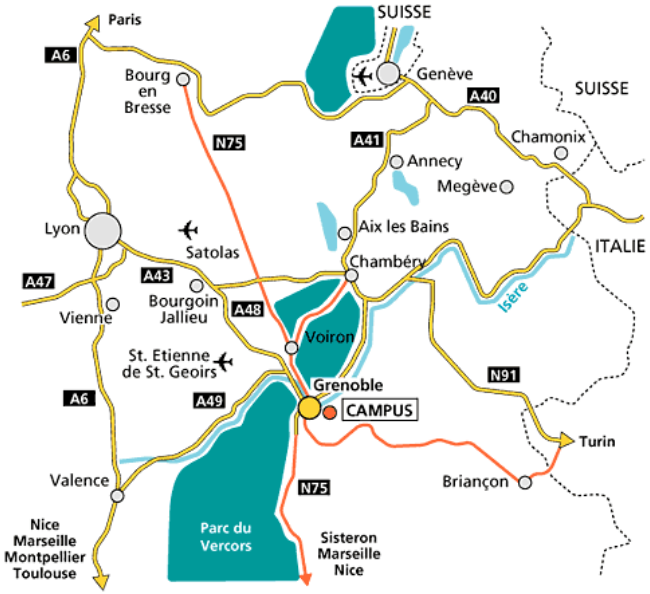
Organisational information

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

Chair of seminar: Prof. B. Allard,
ISP3D, CEGELY/INSA-Lyon
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: Campus of LEG/ENSIEG
St-Martin D`Hères/Grenoble,
France



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

ECPE European Center for Power Electronics e.V.

ECPE Seminar

EMC in Power Electronics

3 – 4 July 2006
Campus of LEG/ENSIEG,
St-Martin d'Hères/,
Grenoble, France

in cooperation with
ISP3D, France

Introduction

EMC in Power Electronics

3 – 4 July 2006
Grenoble, France

Power electronics has evolved by steps due to technology and methodology improvements but under the constant pressure of the market. Unfortunately increasing power ratings and very high switching frequencies have created undesirable couplings inside the power systems. Design of power systems became complex and electro-magnetic standards do not help an already complex situation. Integration is a response to the market requirements for cheaper commutated watts, but it stresses electro-magnetic couplings inside the system. Electro-magnetic compatibility (EMC) is a scientific domain and covers a lot of issues, as important as thermal issues for example.
The seminar wishes to address four topics, and share the experience acquired with industrial applications and academic studies.

- EMC and Integration: integration changes the system behavior with regard to EMC.
- EMC and drives: some experiences related to modern drive applications.
- EMC and embedded network: power electronics is invading autonomous systems like cars, planes or boats. The mobile nature of these systems renders EMC problems specificly.
- EMC and design, simulation and measure-ments: some technical and technological solutions to solve the prediction of EMI through simulation and the possibilities to experimentally verify these estimations.

Prof. Bruno Allard (ISP3D) will chair the Seminar together with Mr. Thomas Harder (ECPE). All presentations and discussions will be in English.

Program

Monday, 03 July 2006

09:30 Beginning of Registration

10:15 Opening/Welcome address
B. Allard (ISP3D)**, T. Harder** (ECPE)

Introduction – EMC: Where are we?
F. Costa, J.-L. Schanen (ISP3D)

Integration

11:00 On device level EMI prediction
E. Hoene (Fraunhofer IZM Berlin, Germany)

11:30 Optimisation of gate circuit layout for reduced EMC self-disturbance inside power modules
R. Pasterczyk (MGE UPS Systems, France)

12:00 EMC and near-field couplings induced by switching current noise in new 3D power integrated structure
J.-M. Diénot, G. Lourdel, (Alstom Transport PEARL, France)

12:30 Lunch

Drives

14:00 Mixed approach to predict conducted common mode perturbations in variable speed drive systems
R. Meuret, F. Costa (Hispano-Suiza, Safran Group, SATIE, France)

14:30 A new carrier-based PWM for the reduction of common mode currents applied to “Neutral-Point-Clamped” inverter
A. Videt, P. Lemoigne (EC Lille, France)

15:00 Coffee break

15:30 Layout techniques for reduction of common-mode current in static converters
J. Aime (LEG, France)

Embedded Networks

16:00 Methodology based on systematic simulation for EMC risks management in automotive systems
F. De Daran (Valeo, France)

16:30 EMC and complex wires links in aircraft
M. Dunand (Labinal, France)

17:00 End

19:30 Dinner

Program

Tuesday, 04 July 2006

Embedded Networks

9:00 Management of EMC in automotive applications, practical tools
B. Pliquet (Renault SA, France)

9:30 EMC-compliant design of automotive power electronics
S. Bolz (Siemens VDO Automotive, Germany)

10:00 Coffee break

Design, Simulation, Measurements

10:30 Design of a high performance three-phase CM/DM noise separator for conducted emissions testing
M. L. Heldwein (ETH Zurich, Switzerland)

11:00 Application of ACEMVV software
B. Revol (SATIE, France)

11:30 EMC related to line systems
D. Tagezout (Cedrat-Applied Magnetics, Switzerland)

12:00 Lunch

13:30 Test bench for the measurement and analysis of near-field emitted EMC inside drive applications
O. Aouine (Ecole des Mines de Douai, France)

14:00 Bus bar design: how to spare nanohenries?
J.-L. Schanen (LEG, France)

14:30 Discussion

15:00 Transfer to MGE facilities by bus

Visit of MGE facilities, Monbonnot

17.00 End of Seminar