

Registration (Fax Reply)

To: ECPE e.V.
Att.: Ingrid Bollens, Ingrid.bollens@ecpe.org
Please **e-mail** a scanned copy of the completed form or
send a fax to: +49 (0)911 / 81 02 88 – 28

Register before **14 November 2012**

Participation fee:

- ☐ €530,- * for industry
- ☐ €395,- * for universities/institutes
- ☐ €120,- * for students (shortened workshop package)

The fee includes dinner, lunch, coffee/soft drinks and a CD with the workshop presentations. A printed version of the workshop handout is available on request (€42,-*).

With the confirmation of registration you will receive the invoice. (* plus VAT) In case of cancellation after 14 November 2012 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
Chairman	Prof. J. A. Ferreira, TU Delft, Dr. J. Popovic-Gerber, TU Delft Prof. E. Wolfgang, ECPE
Organisation	Ingrid Bollens, ECPE e.V. +49 (0)911 / 81 02 88 – 10 ingrid.bollens@ecpe.org
Workshop venue	Grand Winston Hotel Generaal Eisenhowerplein 1 2288 AE, Rijswijk - Delft The Netherlands (approx. 40 minutes from Amsterdam Airport by train)

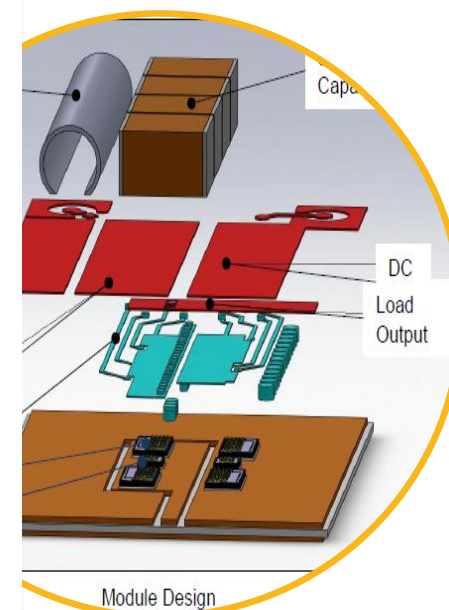


Further information (hotel list and maps) will be provided after registration.



Programme ECPE Workshop

Integrated Power Boards



21 – 22 November 2012
Grand Winston Hotel
Rijswijk/Delft,
Netherlands

In cooperation with

ECPE Workshop

Integrated Power Boards

21 – 22 November 2012
Rijswijk/Delft, Netherlands

In the recent years power PCBs became more and more important for medium power electronics systems. Standard PCBs which are used for microelectronics applications are limited mainly by current, voltage and cooling requirements.

The workshop on “Integrated Power Boards” aims for presenting the state-of-the-art in areas like integration of functions, design, thermal management, manufacturing, and CAD tools. Companies and Universities will demonstrate their technologies by applications (case studies).

In a special panel discussion limitations of integration will be discussed: Experts will make just a few statements to stimulate discussions with the audience.

At the end of the workshop the attendees should have a much better understanding about the performances and limitations of integrated power boards.

The workshop is chaired by Prof. J.A. Ferreira (Delft University of Technology), Dr. J. Popovic-Gerber (Delft University of Technology) and Prof. E. Wolfgang (ECPE). All presentations and discussions will be in English.

There will be a table top exhibition in the frame of the workshop.

Programme

Wednesday, 21 November 2012

10:00 Start of Registration / Welcome Coffee

10:30 **Welcome Address, Opening**
J.A. Ferreira, TU Delft (NL)
T. Harder, E. Wolfgang, ECPE (D)

Overview

10:50 **Integrated Power Boards – Motivation, Technologies & Trends**
E. Hoene, A. Ostmann, Fraunhofer IZM (D)

Funded R & D Projects

11:30 **"HERMES" - The Industrialization of the Chip Embedding Technology**
J. Stahr, AT&S Austria Technologie & Systemtechnik (A)

12:10 **Integration of Electronic Components into PCB for Automotive Applications**
T. Hofmann, Continental (D)

12:50 Discussion

13:00 Lunch

Converters

14:10 **High Power Inverters for Minimized Packaging Density with Minimized Parasitics and Increased Thermal Performance**
T. Gottwald, Schweizer Electronic AG (D)

14:35 **High Current and Thermal Management for PCBs**
S. Hoerth, Häusermann (A)

15:00 **Thermal Management for High Current Applications**
R. Schlueter, Ruwel International (D)

15:25 **Low Profile Magnetics for Ultra-thin PCB Converters for Distributed PV Systems**
M. Acanski, TU Delft (NL)

15:50 Coffee break

Limits of PCB Technologies

16:10 **Solderless Assembly for Electronics (SAFE/Occam)**
J. Fjeldstad, Verdant Electronics (US)

16:30 **Panel Discussion: What are the limits for PCB Systems?**
Moderator: M. Rittner, Robert Bosch (D)

18:00 End of 1st Workshop Day

19:30 Dinner at Hotel Restaurant Grand Winston

Programme

Thursday, 22 November 2012

Low Inductance EMI

9:00 **Ultra-low Inductance Packaging for SiC**
E. Hoene, Fraunhofer IZM (D)

9:25 **PEEC for EMC Layout Optimisation**
J-L. Schanen, G2Lab Grenoble (F)

9:50 **Recent Developments in Integration of Hybrid EMI Filters**
F. Costa, SATIE (F)

10:15 Coffee break

Simulation; Manufacturing

10:45 **Constraint Driven PCB Layout for Power Applications**
M. Wezenberg, Cadence (NL)

11:10 **Automating Lifetime Simulation of Power PCBs**
G. Caswell, DfR Solution (US)

11:50 **PEEC-Based Parasitics Extraction of PCB's**
A. Muesing, ETH Zurich (CH)

12:15 **Power Sandwich Technology for SMT Automated Assembly of Power PCBs**
I. Josifovic, TU Delft (NL)

12:40 Discussion

13:00 Lunch

External connection

14:10 **High Current Printed Circuit Boards (PCBs) and Suitable Connection Techniques**
M. Poech, Fraunhofer ISIT (D)

14:35 **PCB Dual-switch Fuse with Energetic Materials Embedded. Application for new Fail-safe and Fault-tolerant Converters**
F. Richardeau, University of Toulouse (F)

15:00 **Integration of High Power Planar Transformers**
K. Hollevoet, Rogers Corporation (B)

15:25 **The Connection Technology in the Electrical and Thermal System - Laboratory Tests for UL and IEC Approvals at PCB Connectors and Terminals**
S. Ruhna, Weidmüller (D)

15:50 Final Discussion

16:10 End of Workshop