

## Registration (Fax Reply)

To: ECPE e.V.  
Att.: Ingrid Bollens, [Ingrid.bollens@ecpe.org](mailto: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 March 2011**

### Participation fee:

- €490,- \* for industry
- €365,- \* 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 March 2011 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.

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### Sender:

\_\_\_\_\_  
Title, given name, name

\_\_\_\_\_  
Company, department

\_\_\_\_\_  
Full address

\_\_\_\_\_  
Phone, fax

\_\_\_\_\_  
E-mail

\_\_\_\_\_  
Date, signature

## Organisational information

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

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**Chairman** Prof. Enrique Dede  
University of Valencia  
Dipl.-Phys. Thomas Harder  
ECPE e.V.

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

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**Workshop venue** ADEIT – Fundación Universitat-  
Empresa de Valencia  
Plaza Virgen de la Paz, 3  
46001 Valencia, Spain



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



## ECPE Workshop

### Power Electronics for Charging Electric Vehicles

**21 – 22 March 2011**  
ADEIT - Fundacio  
Universitat EMPRESA  
Valencia, Spain

in cooperation with



# Power Electronics for Charging Electric Vehicles

21 – 22 March 2011  
Valencia, Spain

The aim of the Workshop is to present the actual status and trends in chargers and charging stations for Electric Vehicles from the Power Electronics point of view. The first part of the Workshop is devoted to give a general view of the new scenario of this technology, from the electricity suppliers as well as from the automotive industry side.

Standards in EV is a very much discussed item nowadays. There are different charging modes and types of connectors and protocols. Japan has the CHAdeMO standard for ultrafast DC charging while in Europe is still under discussion the IEC 61851-x standard for conductive charging of EV's as well as the IEC 62196-x standard for the connector.

Regulations how the charging stations are to be connected to the grid, their impact, how delivered DC energy has to be measured, how electricity payment has to be done, integration of the EVs in a smart grid, etc. are nowadays not clearly defined items.

What are the actual and future power converter topologies, what semiconductors and passive components are better fitted for improving efficiency, size, overall functionality and cost are discussed for contact charging as well as for inductive charging systems.

Complete charging stations are presented in the final part of the Workshop, from domestic and workplace AC charging stations to the ultrafast DC stations with renewable energy both for contact and contactless operation.

The workshop is chaired by Prof. E. Dede (University of Valencia) and T. Harder (ECPE). All presentations and discussions will be in English.

## Programme

Monday, 21 March 2011

15:00 Start of Registration / Welcome Coffee

15:30 **Welcome, Opening**  
E. Morcillo, University of Valencia,  
J.V. González, GH Electrotermia,  
T. Harder, ECPE e.V.

### General

16:00 **The General Scenario of Electric Vehicles and its Charging Infrastructure (Vehicle-to-Grid, V2G)**  
T. Wittmann, Siemens

16:30 **The transition Engineering from Conventional to the Electric Vehicle: FORD point of view**  
M. Luna, FORD

17:00 **Grid Integration of Plug-In Hybrid Electric Vehicles**  
C. Fleischer, RWTH Aachen University/E.ON ERC

17:30 Coffee Break

### Connection Standards

18:00 **Charging Infrastructure and Standards: ENDESA Experience - Lessons Learnt**  
S. Cascante, ENDESA

18:30 **Connector Standards for the Connection to the Car: Overview on International Standards**  
P. van den Bossche, Vrije Universiteit Brussels

19:00 **End of 1st Day**

20:30 Dinner Hotel "Las Arenas Balneario Resort",  
Eugenia Vines, 22-24  
46011 Valencia, Spain

## Programme

Tuesday, 22 March 2011

### Battery Technologies

9:00 **State of the Art of Batteries for EVs and Stationary Energy Storage**  
C. Fleischer, RWTH Aachen University

9:30 **Technical barriers of present battery technologies for EVs**  
J. Chacón, Saft Baterías

10:00 **Charging Strategies and Control (Battery Management System)**  
R. Schwartz, STMicroelectronics

10:30 Coffee Break

### Converter Technologies

11:00 **Power Semiconductors for Charging EVs**  
L. Lorenz, Infineon

11:30 **Actual and Advanced Converter Technologies for On-Board Chargers (System Integration)**  
S. Zeltner, Fraunhofer IISB

12:00 **Three-Phase Unity Power Factor Mains Interfaces of High Power EV Battery Charging Systems**  
M. Hartmann, T. Friedli, J.W. Kolar, ETH Zurich

12:30 **Contactless Inductive Charging**  
J. Jordan, University of Valencia

13:00 Lunch

### Charging Systems

14:15 **Infrastructure for Domestic, Workshop and Shopping AC Charging**  
J. Asin, INGETEAM

15:00 **Ultrafast DC Charging Stations**  
J. M. Magraner, GH Electrotermia

15:30 Coffee Break

16:00 **Case Study: Inductive Charging Systems for Stationary Contactless Charging**  
M. Lasslop, Johann Lasslop GmbH

16:20 **Case Study: Inductive Energy Transfer Pioneering the Way to Electromobility**  
H. Hepp, IAV / FH Hannover

16:40 **Wrap up, Final discussion**

17:00 **End of Workshop**