

Organisational Information

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send a fax to: +49 (0)911 / 81 02 88 – 28

Register before **3 September 2018**

The registration is open for representatives of ECPE
Member companies and Competence Centres as well as
for invited guests.

The participation is free of charge.

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

Sender:

Title, given name, name

Company, department

Full address

Phone, fax

E-mail

Date, signature

Organisational Information

Organiser ECPE e.V.
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Venue Representation of the Free State
of Bavaria to the EU
Rue Wiertz 77,
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Cluster
Leistungselektronik



ECPE
European Center for
Power Electronics e.V.

Programme

ECPE Network Meeting

The Future Energy System – Power Electronics and the Energy Transition

12 September 2018
Brussels, Belgium



Kindly hosted by
Representation of the
Free State of Bavaria
to the European Union

ECPE Network Meeting

The Future Energy System – Power Electronics and the Energy Transition

12 September 2018
Brussels, Belgium

The ECPE Network Meeting offers a networking platform for exchange and discussion of trends and future topics in the ECPE power electronics community of Member companies and Competence Centres. This year's meeting will focus on the role of power electronics in the upcoming energy transition.

Due to the strategic topic of a sustainable and green energy supply in Europe ECPE will invite stakeholders from the concerned EC directorates as well as representatives from the European Technology Platforms, Research Initiatives and Joint Undertakings active in this field.

Power electronics will have an increasing importance in the future energy systems especially with respect to the energy transition towards an electricity grid dominated by power electronics on the generation side as well as on the load side. The transition from fossil fuels with centralized generation to renewable energies with decentralized generation is already discussed since many years but now we are approaching a transition point where fluctuating renewables are dominating. The stabilization and control of such grids without strong 50Hz backbone provided by conventional generation is one major challenge.

Another major transition in energy systems is the digitalization e.g. driven by the fusion of power electronics and information & communication technologies (ICT). This will, for example, raise the problem of cybersecurity of energy systems.

The Network Meeting is organized as a joint event with the Bavarian Power Electronics Cluster managed by the ECPE e.V. office in Nuremberg.

All presentations and discussions will be in English language.

List of Topics

Wednesday, 12 September 2018

Topics to be addressed:

Green Electricity Grid with Power Electronics Interfacing

- transition in power generation e.g. solar will power the world
- transition in mobility and transport e.g. electrification incl. the EV charging infrastructure
- transition in power transmission & distribution e.g. global HVDC grids
- stabilization and control of electricity grids dominated by power electronics on the generation side as well as on the load side

Power Electronics and ICT

- smart grids for buildings e.g. DC grids in data centres, offices, homes and industry
- cybersecurity of energy systems esp. of smart grids

More than Electricity

- large scale energy storage and the role of hydrogen e.g. LOHC, power-to-gas
- cross-sectoral energy systems

Programme

Wednesday, 12 September 2018

9:30 Start of Registration / Welcome Coffee

10:00 Opening and Introduction
L. Lorenz, Power Electronics Cluster/ECPE

Welcome Address

B. Schretter, Director Representation of the Free State of Bavaria to the EU

10:30 Power Grids of the Future
R. Apel, Siemens Energy Managem. (DE)

11:00 Flexible Energy Grids and Sector Coupling
R. DeDoncker, EON-ERC/RWTH Aachen (DE)

11:30 The Role of Power Electronics in the Grid until 2050
O. Stalter, Fraunhofer ISE (DE)

12:00 Discussion

12:15 Lunch break

13:10 Key Enablers in Power Electronics for Future HVDC Grids
M. Mermet-Guyennet, SuperGrid Institute (FR)

13:30 E-Mobility: Challenges in EV Charging
O. Craciun, ABB (NL)

13:50 Comparative Study of Data Center Power Architectures
C. Henkenius, Delta Energy Systems (DE)

14:10 Cybersecurity of Smart Grids
F. Kupzog, AIT Centre for Energy (AT)

14:30 Coffee break

15:00 Panel Discussion with Speakers
'The Future Energy System – Power Electronics and the Energy Transition'
(Moderator: L. Lorenz)

16:30 End of Network Meeting