

Organisational Information

For registration please use the registration form which is available on the ECPE web page: www.ecpe.org
> ECPE Events > ECPE Workshop: Power Electronics for Grid Integration of Wind Energy> Registration Form

www.ecpe.org/ecpe-events

Deadline for registration:

- **13 June 2018**

Participation fee:

- **€ 595,-*** for industry
- **€ 445,-*** for universities/institutes
- **€ 150,-*** for students/PhD students
(copy of student ID requested)
(limited number only)
(optional dinner: € 50,-* extra fee)

*plus 19 % VAT

- The participation fee includes dinner, lunches, coffee/soft drinks and a flash drive with the workshop presentations. Students/PhD students can book the dinner for an extra fee of € 50,-*
- A printed version of the workshop handout is available on request (€ 50,-*).
- With the confirmation of registration by email you are registered for the workshop and the invoice will be sent by post.
- Three participants from each ECPE member company free of charge. Allocation in sequence of registration.
- Further information (hotel list and maps) will be provided after registration and is available on the ECPE web page.
- In case of cancellation later than two weeks before beginning or non-attendance 50 % of the participation fee is payable.

Organisational Information

Organiser ECPE e.V.
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Chairmen Prof. Marco Liserre
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Source: MHC/Birresborn



Announcement

ECPE Workshop

Power Electronics for Grid Integration of Wind Energy

19 – 20 June 2018
Messe Husum
Husum, Germany

in cooperation with



Department of
ENERGY TECHNOLOGY
Aalborg University



ECPE Workshop

Power Electronics for Grid Integration of Wind Energy

19 – 20 June 2018
Husum, Germany

Wind Energy represents one backbone of renewable energy production and a field where power electronics is established. The modern world is seeking solutions to become more sustainable in terms of power generation and more efficient as well. One of the solutions is to implement renewable generation in the electrical power system and the wind turbine technology has been the fastest moving technology just followed tight by photovoltaic systems. The steady growth for decades of the installed wind power has reached 500 GW capacity in 2017 and together with the up-scaling of the single wind turbine power capability – e.g. 8-10 MW are announced by manufacturers, this has pushed the research and development of all aspects in terms wind power engineering.

Some trends are that the power electronic converters move towards full scale power conversion, large efforts are done towards lower cost per kW and kWh, higher power density and lower weights are needed as well as there is a constant need for a higher reliability for all system components in order to reduce operation and maintenance costs. Further substantial efforts are carried out on the wind turbine technology to comply with the more stringent grid codes, especially grid faults ride-through and reactive power injection, as well as operation in weak grid conditions, which challenges the power converter topologies and the wind turbine components during operation.

The role of power electronics in electric utilities is also changing from an enabling technology for renewable generation and energy efficiency improvement to an underpinning technology for grid modernization. Electronic power transmission and distribution grids, which can efficiently manage electricity among power electronic-based sources and loads, are being envisioned in the near future.

This workshop chaired by Prof. Frede Blaabjerg (Aalborg University, Denmark) and Prof. Marco Liserre (Christian-Albrechts-University of Kiel, Germany) will discuss many of the aspects related to power electronics and wind turbines – from basic components, to converter, and their control up to wind farm control and its realization.

All presentations and discussions will be in English language.

Time Schedule

Tuesday, 19 June 2018

9:30 Start of Registration / Welcome Coffee

10:00 Welcome, Opening

17:45 End of 1st Workshop Day

19:30 Dinner

Wednesday, 20 June 2018

9:00 Start of 2nd Workshop Day

16:00 End of Workshop

List of Topics

- Overview about Power Electronics for Grid Integration of Wind Energy
- Grid-integration challenges (excess of wind energy, harmonics, synchronization, standards -existing and coming ones in different countries- overview)
- System solutions (dc and ac distribution, storage, sector coupling, power to X)
- Control Solutions (central/decentral) of power electronics to target the grid challenges
- Power converters architecture (Low voltage and medium voltage systems)
- Power converter devices (Silicon versus SiC)
- Passive components in wind turbine systems (both in dc link and at ac side)
- Off-shore wind challenges incl operation and maintenance
- Manufactures perspective and emerging technologies (actual drivers – cost of PV energy is cheaper- , solid-state substation, 10-20 MW Wind turbine, transformer free solutions)
- Wind farm system stability assessment – from subsynchronous to super synchronous – as well as mitigation solutions (Tools, RTDS etc)