

EPE Newsletter March 2008

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1. Wind Power to the Grid - EPE Wind Energy Chapter – 1st Seminar - 27-28 March 2008, Delft University of Technology - Delft - The Netherlands: Registration open: <http://etec.vub.ac.be/EPE/03-EPE-WE-Seminar.htm>

Organisation and venue

The seminar will take place on 27 and 28 March 2008, at Delft University of Technology, Delft, The Netherlands. Plenary sessions, lecture and dialogue sessions will be organized in the best EPE tradition to provide maximum networking opportunities. Worldwide experts in the field are expected to take part in the event to exchange best practice and learn from experience with a special focus on industry and technology.

List of topics

1. Wind Energy Conversion Technologies

- 1.a. Permanent magnet generators for large offshore turbines
- 1.b. MW-class wind generator-converter technology for offshore applications
- 1.c. MW low-speed generator solutions
- 1.d. Small wind turbine systems for standalone and grid-connected applications
- 1.e. Geared and gear-less solutions for wind energy conversion. Gear-box issues.

2. Grid Compliance and wind power technology

- 2.a. Interconnection standards for distribution and transmission levels
- 2.b. Interconnections issues for wind turbines
- 2.c. Grid Interface: Grid connection for large wind farms. Reactive power/Voltage control
- 2.d. Ride Through Standards and Technical Solutions for Offshore Wind Farms
- 2.e. Ride-through capability of wind turbines with power electronic systems
- 2.f. Certification of Low Voltage Ride Through LVRT
- 2.g. Laboratory tests of LVRT
- 2.h. Stability analyses: small signal stability, transient stability, stability margin
- 2.i. Frequency control, active power control, runback schemes
- 2.j. Standardisation of simulation models for stability studies

3. Energy storage technologies

- 3.a. Short term: flywheel, super capacitors, batteries
- 3.b. Long term: pumped storage, dispatchable generation
- 3.c. Other storage

4. Wind System Coordination

- 4.a. Wind Farm Control
- 4.b. Real time information exchange required for harmonious operation of wind farms
- 4.c. Planning and configuration of wind farm power systems
- 4.d. Operation and control of doubly fed induction generator systems for wind turbines
- 4.e. Coordination between power electronic conversion characteristics and standard protection equipment characteristics

- 4.f. Fault monitoring and predictive maintenance of power electronic based wind turbine systems

5. Power electronics for integration and control of wind turbines in power systems

- 5.a. Power electronic interface including control for permanent-magnet and field excited synchronous generators
- 5.b. Topologies of Power Electronics Converters for wind turbines
- 5.c. Modelling and simulation of power electronic systems with wind turbines and wind farms
- 5.d. Protection of power electronic systems for wind turbines
- 5.e. Control of power converters for future dispersed generators with high degree of wind integration
- 5.f. Dedicated HVDC for wind power transmission

6. Future trends of wind energy conversion and power electronic applications

- 6.a. Reinforcement of power system for tapping wind power: FACTS, FACDS
- 6.b. Offshore wind turbines: floating and fixed
- 6.c. Power collection and integration of offshore wind farms

Deadlines

Intending authors should note the following deadlines:

Notification of provisional acceptance 15 March 2008

Receipt of full typescript IEEEExplore ready, ppt or pdf presentation on-site at the registration desk

Working Language

The working language of the conference is English, which will be used for all printed material, presentations and discussion.

Programme and Registration

Additional information: <http://etec.vub.ac.be/EPE/03-EPE-WE-Seminar.htm>

Exhibition

There will be an exhibition integrated in the conference. If you would like to know more details please contact us via e-mail: bsneyers@vub.ac.be

Venue

The venue of the seminar is the campus of Delft University of Technology. The city of Delft is located about 50 km from Amsterdam airport. Delft can easily be reached from the airport by train, with a service every half hour.

The city is famous from the painter Johannes Vermeer, from Delft blue pottery and from links with the Dutch Royal Family. It has a nice historical centre with buildings from the 17th century, musea, canals and many small restaurants. The campus is located at walking distance from the city centre (20 min).

EPE Wind Chapter Committees

EPE Wind Chapter Board

- Prof. Tore Undeland, NTNU, Trondheim, Norway
- Prof. Rik De Doncker, Aachen, Germany
- Prof. Braham Ferreira, Delft University of Technology, The Netherlands
- Prof. Torbjörn Thiringer, Chalmers University of Technology, Sweden
- Dr Phillip C. Kjær, Vestas Wind Systems A/S, Denmark
- Prof. Sjoerd de Haan, Delft University of Technology, The Netherlands

EPE Wind Chapter Advisory Council

- Prof. Tore Undeland, NTNU, Trondheim, Norway
- Prof. Marta Molinas, NTNU, Trondheim, Norway
- Dr. Henk Polinder, Delft University of Technology, The Netherlands
- Dr. Jouko Niiranen, ABB, Finland
- Dr. Philip C. Kjær, Vestas Wind Systems A/S, Denmark
- Prof. Torbjörn Thiringer, Chalmers University of Technology, Sweden

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<http://etec.vub.ac.be/EPE/03-EPE-WE-Seminar.htm>

2. Industrial/Ph.D. Course in “Power Electronics for Renewable Energy Systems – in theory and practice”, 12-14 May 2008, Aalborg University by Remus Teodorescu, Aalborg University, Marco Liserre Polytechnic of Bari and Pedro Rodriguez, Technical University of Catalonia.

The objectives of this course are to learn about the grid converter structures and control for both single-phase (micro generation like PV) and three-phase

(wind turbines) systems. Compliance requirements with the recent grid codes standards in terms of power quality, fault-ride-through, robust P-Q control,

grid monitoring and islanding detection are covered in detail. Valuable hands-on experience is provided in the state-of-the-art Green Power Laboratory with experiments (ca 50% of course time) including control of grid converters including current control, harmonic compensation, grid synchronization, sag detection. three-phase grid converters controlled by DSPACE.

For more information and registration:

http://www.iet.aau.dk/News/pdf/2008/Folder_Peres_May08.pdf

3. Panel Discussion on Intelligent Power Electronics for Energy Efficiency – Research Needs and Opportunities, Wednesday, 12 March 2008 during 5th International Conference on Integrated Power Electronics Systems, CIPS 2008 (11-13 March 2008 in Nuremberg/Germany)

In the frame of the 5th International Conference on Integrated Power Electronics Systems, CIPS 2008 (11-13 March 2008 in Nuremberg/Germany) ECPE will organise a Panel Discussion on “Intelligent Power Electronics for Energy Efficiency – Research Needs and Opportunities” on Wednesday, 12 March 2008, 17:40 – 19:00 h.

Dr. Sanchez Jimenez from the European Commission, Information & Communication Technologies for Sustainable Growth, will participate in the panel and present the future focus of the FP7-ICT programme regarding energy efficiency.

Please find more information on the CIPS 2008 Conference, see [Conference Programme Flyer](#).

The conference is open for [Registration](#). ECPE member companies please use the [direct registration via ECPE](#) to receive the member discount.

4. Call for papers for EPE journal, included in ISI and Compendex

EPE Journal is included in the Science Citation Index as well as in the Compendex. Send your best technical papers for publication to bsneyers@vub.ac.be (pdf file, without any mention of authors, full coordinates in the mail message)

<http://www.epe-association.org>

5. Technically sponsored conferences

March 11-13, 2008, Nuremberg, Germany
CIPS 2008, 5th International Conference on Integrated Electronics Systems

Contact:

VDE Conference Services
Stresemannallee 15, D-60596 Frankfurt, Germany
Phone: +49 69 6308 275, Fax: +49 69 9631 5213
e-mail: conference-papers@vde.com
URL: <http://www.cips-conference.de>

March 11-13, 2008, Geneva, Switzerland
EET-2008
3rd European Ele-Drive Transportation Conference

On the Way to Sustainable Development and Market Opening

In cooperation with the International Advanced Mobility Forum

in conjunction with the Geneva International Motor Show

Contact:

European Association for Battery, Hybrid and Fuel Cell Electric Vehicles aisbl/ivzw
c/o VUB-FirW-ETEC Bd. de la Plaine, 2 -
B-1050 Brussels
Tel +32 2 629 23 63 - Fax +32 2 629 36 20
avere@vub.ac.be

NORPIE 2008

9-11 June 2008, Espoo, Finland

Nordic Workshop on Power and Industrial Electronics
Helsinki University of Technology Faculty of Electronics,
Communications and Automation Espoo, Finland

Deadline for summaries: February 29, 2008

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The www-pages of Helsinki University of Technology have been renewed beginning of 2008. Because of this www-addresses may still change. Updated information can be found at least from

http://powerelectronics.tkk.fi/current_info/files/norpie2008.pdf

September 8-10, 2009 Barcelona, Spain

EPE 2009

Call for papers to be released next May 2008

Deadline for receipt of synopses: November 2008

<http://www.epe2009.com>

9. ECPE Calendar of Events 2008

Full programmes are available from http://www.ecpe.org/education/seminars_e.php

Date	Location	Event	Topic
11-13 March 2008	Nuremberg (D)	ECPE Annual Event and Conference	ECPE Annual Event 2008 in conjunction with 5 th Intern. Conf. on Integrated Power Electronics Systems (CIPS 2008): <ul style="list-style-type: none">• ECPE Member Meeting (13.03.2008)• ECPE Roadmap Session (13.03.2008)
18-19 March 2008	Coventry (UK)	ECPE Tutorial	Reliability of Power Electronic Systems Course instructor: Prof. E. Wolfgang (ECPE)
8-9 April 2008	Helsinki (FIN)	ECPE Tutorial	EMC in Power Electronics Course instructors: Dr. E. Hoene (Fraunhofer IZM) Dr. J. Laeuffer (F)
15-16 April 2008	Warsaw (PL)	ECPE Seminar	Towards Energy Gain and Savings - Emerging Drives and Generator Systems Techn. Chairman: Prof. Koczara (TU Warsaw)
27-29 May 2008	Nuremberg (D)	Conference and Exhibition	PCIM Europe Conference & Exhibition <ul style="list-style-type: none">• ECPE Round Table Discussion on Passives in Power Electronics, PCIM Conference• ECPE Joint Stand, PCIM Exhibition
18-19 June 2008	Itzehoe (D)	ECPE Tutorial	Reliable Soldering in Power Electronics Manufacturing (with practical training) Course instructor: Dr. Ahrens, Dr. Poech (FhG ISIT)
25-26 June 2008	Toulouse (F)	ECPE Workshop	Built-in Reliability into Power Electr. Systems Techn. Chairman: Prof. E. Wolfgang (ECPE) Co-Chairman: Dr. M. Mermet-Guyennet (PEARL)
7-8 Oct. 2008	Stuttgart (D)	ECPE Seminar	Automotive Power Electronics (w. EC Projects) Techn. Chairman: Dr. M. Maerz (Fraunhofer IISB) Co-Chairman: Prof. E. Wolfgang (ECPE)
Oct./Nov. 2008	Nuremberg (D)	ECPE Tutorial	Power Electronics Packaging Course instructor: Prof. R. Eisele (UAS Kiel)
Nov. 2008	TBD	ECPE Workshop	Advanced Cooling Techniques (1 st day) Techn. Chairman: Prof. E. Wolfgang (ECPE) Power PCBs and Busbars (2 nd day) Techn. Chairman: NN
Nov./Dec. 2008	Nuremberg (D)	ECPE Tutorial	Power Semiconductor Devices & Technologies Course instructor: Prof. D. Silber (Univ. Bremen)

Further Power Electronics Events of the Bavarian Cluster: www.cluster-bayern-leistungselektronik.de (in German language).