

# **Organization and Venue**

The European Power Electronics and Adjustable Speed Drives community will gather in Aalborg, Denmark, in September 2007 to exchange views on research progresses and technological developments in the various topics described hereunder. The EPE 2007 conference is sponsored by the EPE Association and will be held in the Aalborg Congress & Culture Centre from 2 to 5 September 2007. It is hosted by Aalborg University's Institute of Energy Technology. Denmark is the distributed power generation nation. More than 20% of the electricity is covered by wind and small combined heat and power plants are covering even more. A perfect place for new power electronic solutions.

# **Aims of Conference**

EPE is the place for specialists in power electronics, systems and components, to present papers and attend sessions on state-of-the-art technology in this challenging and evolutionary sector. The conference aims to be a meeting forum for researchers, developers and specialists from the industry. Papers are encouraged on all topics described hereunder for interdisciplinary discussions of new ideas, research, development, applications and the latest advances in the field of power electronics and adjustable speed drives.

# **Topics**

Advances in Energy Conversion and Conditioning Technologies (ECCT), exploiting new power electronic systems, energy conversion devices and system control regimes, are all fundamental and crucial to the development of the clean, efficient and sustainable technology of the future. Over 50 % of the European, Japanese and North-American electric energy consumption passes through electronic conversion and conditioning equipment. This exploitation of ECCT increases steadily. Next to the improved behaviour of systems, the reduced energy consumption is a key factor, helping to achieve the Kyoto requirements and to address key issues related to the reduction of Greenhouse gases and pollutant emissions in industrial processes and transport; to increase the use of renewable energy sources and to allow their integration in the grid. Most of the electricity production based on alternative energy sources must undergo conditioning through ECCT equipment before use. ECCT is also a major means to achieve enhanced competitiveness of all industrial processes. Basic ECCT technologies alone constitute a world market estimated at multi-billion Euro value of which the EU has a 40% share. Significantly, ECCT is a core enabling technology providing the central electrical, control, diagnostic and management systems. The EPE 2007 conference will offer a wide discussion forum on all topics related to these aspects.

The list of topics hereunder holds only the headlines. A detailed list of subtopics is available at: <a href="http://www.epe2007.com">http://www.epe2007.com</a>

### A. DEVICES, PACKAGING AND SYSTEM INTEGRATION

Topic 1: Active devices

Topic 2: Passive components, system integration & packaging

Topic 3: Power system integration

### **B. POWER CONVERTERS TOPOLOGIES AND DESIGN**

Topic 4: Soft switching converters and control

Topic 5: Hard switching converters and control

### C. MEASUREMENT AND CONTROL

Topic 6: Modulation strategies and specific control methods for static converters

Topic 7: Application of control methods to electrical systems

Topic 8: Measurements and sensors (except speed and position sensors)

### D. ELECTRICAL MACHINES AND DRIVE SYSTEMS

Topic 9: Motion control and robotics, communication in drive systems

**Topic 10: Electrical machines** 

Topic 11: Adjustable speed drives

Topic 12: High performance drives

# E. APPLICATIONS OF POWER ELECTRONICS IN GENERATION, TRANSMISSION AND DISTRIBUTION OF ELECTRICAL ENERGY

Topic 13: Electrical energy generating systems, renewable energy systems

Topic 14: Transmission and distribution of electrical energy

# F. APPLICATIONS OF POWER ELECTRONICS IN USERS DEVICES / PROCESSES

Topic 15: Power supplies

Topic 16: Electrical systems in aerospace, space, surface and marine transport

Topic 17: Operating quality of systems

Topic 18: Industry specific energy conversion and conditioning technologies

Topic 19: Energy saving technologies

Topic 20: Energy conversion and conditioning technologies in physics research and related applications

#### G. EDUCATION

Topic 21: Education

# **Presentation of Papers**

Contributions to EPE 2007 must be presented either as a lecture presentation or as a dialogue presentation. A manuscript must be submitted in English in both cases for inclusion in the Conference Proceedings (CD-ROM). Papers for lecture sessions will be strictly limited and selected on the basis of wide audience appeal, ease of understanding and potential stimulation of broad ranging discussion. Dialogue presentation will take place in the afternoon. No lecture session will be organized during the dialogue sessions.

# **Tutorials - Call for Proposals**

Several tutorials will be held prior to the conference. Authors willing to propose a tutorial at EPE 2007 are invited to send a proposal to the scientific secretariat (EPE Association, c/o VUB-IrW-ETEC, Pleinlaan 2, B-1050 Brussels, Belgium, e-mail: <a href="mailto:epe-association@vub.ac.be">epe-association@vub.ac.be</a>) before January 15, 2007. The proposal will consist of a three-page summary including tutorial title, name and affiliation of the lecturer(s), tutorial objectives and audience, topical outline and provisional schedule of the tutorial. Tutorials will be organized at the University of Aalborg on Sunday September 2nd, 2007.

Tutorial proposals are particularly welcome in the following topics, although other topics may be proposed as well:

- New Devices for Sustainable Energy Applications

- Understanding the Electrical Grid Behaviour and Management

- Building and Connecting Wind Energy Sources

- Building and Connecting PV Energy Sources

- Connecting Fuel Cells to the Electrical Applications

- Power Electronics and Adjustable Speed Drives for Clean Road Transport

- Application of Drives

- New Topologies for Sustainable Energy Applications

- Storage of Electrical Energy in the Electrical Grid

- Storage of Electrical Energy for Transport Applications

- Education issues

- More...

## **Content of Synopses**

The synopses should consist of:

- a 2 to 3 pages summary, including an abstract with no more than 50 words; topic number and indication of the preference for dialogue or lecture presentation. These must be clearly mentioned;
- kev diagrams:
- a references list.

The synopses will be submitted using the host of the conference on the internet. A link to the site will be available from http://www.epe2007.com, a link from http://www.epe-association.org will be available as well. Detailed information and guidelines can be downloaded from the site to help you preparing the needed material for submitting a synopsis. The site will be open for upload from 1 September 2006 onwards.

Authors of papers provisionally selected for presentation will receive a notification and can download the instructions for preparing the dialogue papers and/or the lecture papers from the internet site. Final selection will be based on the full paper. The paper will only be included in the Conference Proceedings after receipt of one full registration fee per paper in due terms. Student registration fee is only valid for student participants, not for authors. One single author may not present more than two (2) papers. In that case, the fee to present the two papers will be 150% of the registration fee.

A selection of outstanding conference papers will be published afterwards in the EPE Journal, which is an ISI registered journal.

The conference papers will also be registered in IEEEXplore.

### **Deadlines**

Intending authors should note the following deadlines:

Receipt of synopses 1 November 2006 Notification of provisional acceptance 1 March 2007 Receipt of full typescript for final review 15 May 2007

### Working Language

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

# **Programme and Registration**

A provisional programme and registration form will be published a few months before the conference, and sent to all who submitted a synopsis – all authors & co-authors who completed their data sheet – and to all who requested a copy at the EPE secretariat by sending an e-mail with their coordinates to: epe-association@vub.ac.be.

Additional information: http://www.epe2007.com

### **Exhibition**

There will be an exhibition integrated in the conference. If you would like to know more details please go to http://www.epe2007.com or contact us via e-mail: hk@aalborg.dk, bj@iet.aau.dk or epe-association@vub.ac.be

### Venue

The venue is Aalborg, which is a beautiful and lively city, steeped in history and rich in great experiences. It was the Vikings who founded a settlement at this point where the Lim Fjord is narrowest, and through the years, the city developed into one of the busiest trading centres in Denmark. Trade and wealth set their mark on the city and many of the old buildings from that time have been preserved as natural elements in the city scene. Sightseeing is possible both in the city as well around Denmark. More details found at:

http://www.visitaalborg.com/show.asp?ID=53

# **Secretariat**

### EPE secretariat

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# **Conference Organizing Committee**

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