EPE Newsletter August 2006

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2. PCC Nagoya – The 4th Power Conversion Conference – Nagoya 2-5 April 2007; deadline 12 September 2006

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4. Future issues of EPE Journal

To receive a copy of the issues: become a member of the EPE Association: <u>epe-association@vub.ac.be</u> To submit a paper to the evaluation procedure, send an anonymous pdf file of your paper to <u>bsneyers@vub.ac.be</u>

5. Technically sponsored conferences

1. EPE 2007: Call for papers: Deadline for the receipt of synopses: 1 November 2006



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 multibillion 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: <u>http://www.epe2007.com</u>

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: <u>epe-association@vub.ac.be</u>) 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;
- key 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 No

 Notification of provisional acceptance
 Receipt of full typescript for final review

1 November 2006 1 March 2007 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

Brigitte Sneyers, EPE Association c/o VUB-TW-ETEC, Pleinlaan 2 B-1050 Brussels, Belgium Tel.: +32 2 629 28 19 Fax: +32 2 629 36 20 e-mail: epe-association@vub.ac.be Local secretariat Hanne Kristiansen Aalborg Congress Service Østeraagade 8, DK-9000 Aalborg, Tel: +45 9930 6082 Fax: +45 9816 6922 e-mail: hk@aalborg.dk

Conference Organizing Committee

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R. Nilsen

C. Oates

B. Nogarede

P. R. Palmer

2. PCC Nagoya – The 4th Power Conversion Conference – Nagoya 2-5 April 2007

CALL FOR PAPERS: Deadline 12 September 2006

The Fourth Power Conversion Conference (PCC) will be held at the Nagoya Congress Center, Nagoya, Japan, from April 2 to 5, 2007. As the 4th PCC since 1992, the Nagoya Conference will provide a unique opportunity for engineers, researchers and academicians to assemble in a city which has outstanding features both in historical and modern aspects, and to exchange state-of-the-art power conversion technologies and applications.

Organizing Committee Chairperson Prof. Fumio Harashima (Tokyo Denki University) Steering Committee Chairperson Prof. Shigeru Okuma (Nagoya University) Technical Program Committee Chairperson Prof. Takaharu Takeshita (Nagoya Institute of Technology)

Contributions of technical papers in the following areas are invited

- 1. Power Semiconductor Devices and Modules
- 2. Packaging and Integration of Power Converters
- 3. Static Power Converters and Systems
- 4. Motor Control and Drives
- 5. Power Supply for Electronic Equipment and
- Telecommunications

6. Power Electronics and Drives Applied to Industry and Home Appliances

7. Power Electronics and Drives Applied to Vehicles,

Traction Systems and Aerospace

8. Energy Storage Systems and New Power Generation Systems

9. Transmission and Distribution Applications of Electric Power and Other High Power Applications
10. SPECIAL TOPICS: Power Electronics for a Better Future Environment (FCEV/HEV)
11. Other Related Topics

IMPORTANT DATES

Submission of Extended Summary Author's Notification of Acceptance Submission of Final Full Paper September 12, 2006 November 30, 2006 January 31, 2007

Paper Submission Office of PCC-Nagoya 2007

c/o ICS Convention Design., Inc. Sumitomo Corporation Jinbocho Building 3-24, Kanda-Nishikicho, Chiyoda-ku, Tokyo, 101-8449, Japan Phone: +81-3-3219-3600 Fax: +81-3-3292-1811 e-mail: <u>pccnagoya@ics-inc.co.jp</u> Website: http://www.ics-inc.co.jp/pcc/

3. Contents of Vol. 16 of EPE Journal: http://www.epe-association.org

EPE Journal is included in the Science Citation Index

Vol 16 no 3: a series of peer reviewed papers

A sensorless field oriented control for induction motors using ripple currents in space phasor based PWM control, K. K. Mphapatra, K. Gopakumar, M. R. Baiju, CEDT, Indian Institute of Technology, India; Balarama V. Murty, GM research and development centre, USA

Control of single-stage single-phase PV inverter, Mihai Ciobotaru, Remus Teodorescu, Frede Blaabjerg, Institute of Energy Technology, Aalborg University, Denmark

Comparison of Direct Multiobjective Optimization Methods for the Design of Electric Vehicles, X. Roboam, J. Régnier, B. Sareni, Y. Ferfermann, LEEI, UMR INPT-ENSEEIHT/CNRS No. 5828, Toulouse, France

Vol 16 no 4: a series of peer reviewed papers

A novel split phase induction motor drive without harmonic filters and with linear voltage control for the full modulation range, K. K. Mphapatra, K. Gopakumar, CEDT, Indian Institute of Technology, India

Computer Aided Control Optimization of Power Converters, Federico Belloni, University of Milan, Italy Characteristic Measurement System for Automotive Class Switched Reluctance Machines, Nisai Fuengwarodsakul, Stefan E. Bauer, Rik W. De Doncker, Institute for Power Electronics and Electrical Drives, Aachen University, Germany

Polyphase boost converter with digital control, Rahmatollah Mirzaei, V. Ramanarayanan, Indian Institute of Technology, India

Dynamic Performance Comparison of IRFO and SFO-SM Controlled Drives in Field-Weakening Region using Variable-Saturation Regulators, F. Cupertino, N. Salvatore and G. L. Cascella, Politecnico di Bari, Italy

Sensorless Direct Instantaneous Torque Control for Switched Reluctance Machines, Nisai Fuengwarodsakul, ISEA, Germany

Control of a stand-alone variable speed constant frequency generator based on a doubly-fed induction machine, Nicolas Patin, Satie, ENS de Cachan, France Steady state electrical design, power performance and economic modeling of offshore wind farms, P. Bauer, Technical University Delft, The Netherlands Single-phase resonant converter in three-phase system in modular approach, M.R.Ramteke, Visvesvaraya National Institute of Technology, India

Vol 17 : a series of peer reviewed papers, still to be programmed

A Five-Level Inverter Topology with Common-Mode Voltage Elimination for Induction Motor Drives, K. Gopakumar, CEDT, India

Comparison of the induction motors stator fault monitoring methods based on current negative symmetrical component, Abdesselam Lebaroud, Cegely –UCBL, France Linearization of the multi-level SVPWM signal generation in the over-modulation region extending up to six-step mode using only the sampled amplitudes of reference phase voltages, K. Gopakumar, CEDT, India

4. Future issues of EPE Journal (included in the Science Citation Index):

To receive a copy of the issues: become a member of the EPE Association: <u>epe-association@vub.ac.be</u> To submit a paper to the evaluation procedure, send an anonymous pdf file of your paper to <u>bsneyers@vub.ac.be</u>

5. Technically sponsored conferences

2-3 November 2006, Lausanne, Switzerland ESSCAP'06 2nd European Symposium on Super Capacitors & **Applications Topic** Areas 1. Materials and technologies 2. Diagnosis, reliability & safety 3. Power electronics and converters 4. Applications Secretariat VIONNET F. LEI-EPFL, Lausanne Tel.: VIONNET F. ++41 21 693 26 28 BARRADE P. ++41 21 693 26 51 RUFER A. ++41 21 693 46 76 ZOIA R. ++41 21 693 36 98 Fax: ++41 21 693 26 00 Website: http://lei.epfl.ch/esscap2006 E-mail: esscap2006@epfl.ch

4 - 6 November 2006

The First International Meeting on Electronics & Electrical Science and Engineering - University of Djelfa, ALGERIA

Further informations

Please forward enquiries to the addresses below:

A.Gueddim, B.S Khaldi Electronics & Electrical Engineering Institute, University of Djelfa, P.O.Box : 3117, Djelfa, Algeria Tel: +213 27-903230 Fax: +213 27-903237 E-mail: gueddim_a@yahoo.com khaldi_bs@yahoo.com 2-5 April 2007 PCC Nagoya – The 4th Power Conversion Conference – Nagoya, Japan Paper Submission Office of PCC-Nagoya 2007 c/o ICS Convention Design., Inc. Sumitomo Corporation Jinbocho Building 3-24, Kanda-Nishikicho, Chiyoda-ku, Tokyo, 101-8449, Japan Phone: +81-3-3219-3600 Fax: +81-3-3292-1811 e-mail: pccnagoya@ics-inc.co.jp Website: http://www.ics-inc.co.jp/pcc/

October 21 - 25, 2007 The 7th International Conference on Power Electronics ICPE '07 EXCO (Daegu Exhibition & Convention Center), Daegu, Korea Important Dates Deadline for Digests April 30, 2007 Author's Notification of Acceptance June 15, 2007 Deadline for Final Manuscripts August 31, 2007 **Organized by** The Korean Institute of Power Electronics (KIPE) First Call for Papers http://www.icpe.or.kr **For Further Information, Please Contact** ICPE'07 (KIPE) Science & Technology B/D #408, 635-4, Yeoksamdong Kangnamku, Seoul, Korea, 135-703 Tel: +82-2-554-0184 / Fax: +82-2-554-0186 E-mail: icpe@kipe.or.kr / Web Site: http://www.icpe.or.kr