

EPE Newsletter February 2009

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➤ **1. 2nd EPE Wind Energy Chapter Seminar, The Royal Institute of Technology, Stockholm, Sweden, 23 and 24 April 2009, Registration opens! (programme and registration form attached)**

On 22 April, a study visit to ABB Ludvika will be organized, starting 9:00 exactly at KTH Stockholm. The visit will start with a lunch, followed by a lecture, and the visit of the HVDC Light and transformer workshops. At 16:00 the bus leaves from Ludvika to Stockholm. Arrival in Stockholm will be around 19:00.

All information on http://etec.vub.ac.be/EPE/EPE-WECS-2009/01_Frameset.htm

and

EPE secretariat

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➤ **2. 1st EPE Seminar of the Chapter on Components**

Organised by KTH, Acreo, and TranSiC under auspices of the European Power Electronics and Drives Association (EPE), Chapter on Components.

Chaired by Bo Hammarlund, Prof. M. Bakowski, and Prof. H-P. Nee

Date: 31st of March 2009

Time: 08:00 – 17:00

Location: Kista, Sweden

The workshop is for scientists, engineers, persons in management positions, and research students who want to be updated on the latest developments in the field of SiC devices and potential applications. Approximately 8 presentations will be given, some of them by internationally recognized experts in the area of silicon carbide power electronics with special focus on devices and power modules. Ample time is reserved for discussion and networking. The list of invited speakers include Bruce Carsten , Mark Johnson, and Josef Lutz.

Bruce Carsten has 37 years of experience in the switch-mode field, with over 50 published papers and twelve patents. With 15 years of production design experience ranging from 100 mW to 10 KW. Since 1995 Bruce has presented over 100 seminars in Canada, Spain, Germany, England, Ireland, Scotland, Hong Kong, Singapore, and 14 states in the US. His practice-oriented design seminars emphasize an intuitive understanding of the phenomena involved, include many rules-of-thumb, and keep the pragmatic needs of the harried design engineer in mind.

Mark Johnson is Professor of Advanced Power Conversion School of Electrical & Electronic Engineering, Faculty of Engineering.

From 1998 to 2001 he managed the UK national programme on Silicon Carbide electronics and in 2000 he became Reader of Power Electronics at the University of Newcastle. In 2003, Professor Johnson was appointed as Rolls-Royce/RAEng Research Professor of Power Electronic Systems at the University of Sheffield and in 2006 he was appointed to a personal chair at the University of Nottingham, where he leads research into power semiconductor devices, power device packaging, reliability, thermal management, power module technologies, and power electronic applications.

Josef Lutz is Professor of Power Electronics and Electromagnetic Compatibility at TU Chemnitz.

Josef Lutz studied physics at the University of Stuttgart. Since 1983 he was with Semikron Elektronik in Nürnberg. Initially, the focus of his work was on development of GTOs, and later the development of fast diodes. He introduced the Controlled Axial Lifetime (CAL) diode, and holds a great number of patents in the field of fast diodes. In 1999 he received his PhD degree from the University of Ilmenau and since 2001 he holds a chair in Power Electronics and Electromagnetic Compatibility at Technical University in Chemnitz.

Contact and registration: info@acreo.se

➤ **3. Course on Power Electronic Devices, Understanding and Use in Circuits, 16th-20th March 2009, Lausanne, Switzerland**

(6 modules, 20 hours lectures + 8 hours personal work)

- 1) Principle of the power conversion, from the ideal switch to the conversion circuit (Prof. A. Rufer and Dr. P. Barrade)
- 2) Introduction to the power semiconductor technology, power semiconductor basic physics (Prof. Nando Kaminski, University Bremen)
- 3) PN junction, pin Diodes (Prof. Nando Kaminski, University Bremen)
- 4) Bipolar transistors, Thyristors, GTO and IGCT's (Prof. Nando Kaminski, University Bremen)
- 5) Power MOSFET and IGBT's (Prof. Nando Kaminski, University Bremen)
- 6) Use of power semiconductors in application circuits (Prof. A. Rufer, STI LEI).

Textbook:

Stefan Linder, Power Semiconductors. Engineering Sciences Electrical Engineering, EPFL Press, ISBN 2-940222-09-6, <http://ppur.epfl.ch/livres/2-940222-09-6.html>

Information and registration:

EPFL

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➤ **4. International Conference on Electric Power and Energy Conversion Systems
American University of Sharjah, UAE, November 10-12, 2009
First Announcement and Call for Participation**

The purpose of the International Conference on Electric Power and Energy Conversion Systems is to bring together researchers, engineers and practitioners from all over the world, interested in the advances of power systems, energy conversion, power electronics, and electric drives.

The objective of the conference is to provide scientific and professional interactions for the advancement of the electric energy field in the UAE and Gulf region. Recent development of complex systems such as distributed power systems, electric vehicles and traction systems, and renewable energy systems are encouraged.

The conference will feature oral and poster presentations. Invited speakers will focus attention on future trends in areas of interest to the conference. An exhibition area, with technical facilities, will be considered.

CONFERENCE TOPICS:

- Renewable Energy Systems and Technology
- Power System Control and Operation
- Power System Communication and SCADA
- Power System Relaying and Protection
- Energy Management System and Distribution Automation
- Power Quality
- High Voltage Engineering
- Modeling and Simulation of Power Electronics Converters
- Power Electronics, Systems and Applications
- Analysis and Design of Electric Machines
- Control of Electric Machines
- Industrial Drives
- Power Engineering Education

SUBMISSIONS:

Papers describing original work are invited in any of the scientific areas of the conference. Prospective authors are invited to submit their manuscripts in the form of full papers (IEEE format, maximum of 6 proceedings pages) using our TrackChair online submission system:

<http://epecs09.trackchair.com>

The proceedings will be included in the IEEE Xplore database. Additional information will be posted in the conference website www.epecs-conf.org

IMPORTANT DEADLINES

Full Paper Submission: April 30th, 2009

Author's Notification: July 31st, 2009

Final Paper Submission and registration: Sept 15th, 2009

Contact : epecs09@aus.edu

Tel: +(971) 6 515 2927

Fax: +(971) 6 515 2979

<http://www.epecs-conf.org/cop.html>

➤ **5. Call for papers for EPE journal, included in ISI and Compendex: impact factor is 0,2**

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

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

➤ 6. Technically sponsored conferences

**3rd international conference APE
AUTOMOTIVE POWER ELECTRONICS
25 & 26 March 2009, Paris**
Contact: Clémence Benoit
 0033 (0)1 41 44 93 75
 e-mail : clemence.benoit@sia.fr
 web : www.sia.fr

**1st EPE Seminar of the Chapter on Components
Organised by KTH, Acreo, and TranSiC under auspices
of the European Power Electronics and Drives
Association (EPE), Chapter on Components.
Chaired by Bo Hammarlund, Prof. M. Bakowski, and
Prof. H-P. Nee**
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Contact and registration: info@acreo.se

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23-24 April 2009
Stockholm , Sweden**

<http://etec.vub.ac.be/EPE/03-EPE-WE-Seminar-2009.htm>

EVS-24, Stavanger, 13-16 May 2009
Information: www.evs24.org

**ELECTROMOTION 2009
Lille, France
1-3 July 2009**
Information: www.electromotion2009.fr

**September 8-10, 2009 Barcelona, Spain
EPE 2009**
<http://www.epe2009.com>

**November 10-12, 2009, American University of Sharjah,
UAE**
**International Conference on Electric Power and Energy
Conversion Systems**
Contact : epecs09@aus.edu
 Tel: +(971) 6 515 2927
 Fax: +(971) 6 515 2979
<http://www.epecs-conf.org/cop.html>



➤ 7. ECPE Calendar of Events 2009

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

Date	Location	Event	Topic
5 - 6 February 2009	Nuremberg, Germany	ECPE Tutorial	Power Semiconductor Devices & Technologies Course Instructor: Prof. D. Silber (Univ. Bremen)
5 - 6 March 2009	Nuremberg, Germany	ECPE Tutorial	Power Electronics Packaging Course Instruct.: Dr. J. Popovic (TU Delft/ECPE) Dr. U. Scheuermann (Semikron)
6 March 2009	Zurich, Switzerland	ECPE Workshop	Research Challenges and Visions on Megawatt Power Electronics and Smart Grids Techn. Chairmen: Prof. J.W. Kolar (ETH Zurich) Dr. M. Weinhold (Siemens)
17-18 March 2009	Nuremberg, Germany	ECPE Seminar and Annual Event	New Materials for Power Electronics – Electrical Engineering meets Materials Science: - cooling materials: substrates, base plates, heat sinks - passives: new materials for capacitors and inductors - advanced polymer systems - power semiconductor devices and technologies Techn. Chairman: Dr. M. Maerz (Fraunhofer IISB)
25 - 26 March 2009	Paris, France	Conference	APE Conference
30 - 31 March 2009	Munich, Germany	ECPE Seminar	More Electric Vehicles commercial vehicles for on-road and off-road applications, more electric aircraft and ship Techn. Chairmen: Prof. H.-G. Herzog (TU Munich) Prof. R. Marquardt (Bundeswehr Univ. Munich)
28 - 29 April 2009	Tarbes, France	Symposium	DéciElec Symposium – Power Electronic and Energy Management Systems
12 - 14 May	Nuremberg,	Conference and	PCIM Europe

2009	Germany	Exhibition	with ECPE Round Table 'Vehicle to Grid'
23 June 2009	Brussels, Belgium	ECPE Workshop	EC Workshop on Intelligent Power Electronics for Energy Efficiency - the Role of ECPE Research Roadmaps Techn. Chairman: Prof. L. Lorenz (Infineon)
1 – 2 July 2009	Prague, Czech Rep.	ECPE Tutorial	Reliability of Power Electronic Systems Course Instructor: Prof. E. Wolfgang (ECPE)
June/July 2009	Munich, Germany	ECPE Workshop	Power Semiconductor Robustness – What Kills Power Devices? Techn. Chairman: Prof. D. Silber (Univ. Bremen)
8 - 9 July 2009	Itzehoe, Germany	ECPE Tutorial and Training	Soldering Processes in PE Manufacturing Course Instructor: Dr. T. Ahrens (Fraunhofer ISIT)
28 - 29 July 2009	Erlangen, Germany	ECPE Tutorial	Thermal Engineer I (thermal design and verification) Course instructor: Prof. E. Wolfgang (ECPE)
8 - 10 Sept. 2009	Barcelona, Spain	Conference	EPE Conference with ECPE Session 'Reliability of Power Electronic Systems'
10 - 11 Sept. 2009	Barcelona, Spain	ECPE User Forum	3 rd SiC User Forum - Potential of SiC and other WBG Semiconductors in Power Electronic Applications Techn. Chairman: Prof. A. Lindemann (Uni. Magdeburg) Prof. J. Millan (CNM Barcelona)
13 – 14 Oct. 2009	Erlangen/ Nuremberg, Germany	ECPE Tutorial	Thermal Engineer II (thermal management and reliability)
October 2009	TBD	ECPE Double Workshop	Advanced Power Electronics Packaging and Mechatronic System Integration 1 st day: Advanced PE Packaging (low power): moulding, chip embedding, power stacking, wafer level bumping/balling 2 nd day: Power Mechatronics: design & simulation, integration technologies, applications, reliability
October 2009	Berlin, Germany	ECPE Tutorial	EMC in Power Electronics Course Instructor: Dr. E. Hoene (Fraunhofer IZM)
November 2009	TBD	ECPE Workshop	Electronics Enabling Efficient Energy Usage (E4U - Workshop) Techn. Chairmen: Prof. J.A. Cobos (U Madrid) T. Harder (ECPE)

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