

EPE Newsletter February 2008

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In Memoriam: André J.A. Vandenput (1949-2008)



With great sadness we were informed that André Vandenput, professor at TU Eindhoven, passed away this last January 11. André was member of the EPE International Steering Committee and was member of the EPE Executive Council from 1995 till 1999 and from 2003 till 2007. André was also an active member of the IAS, Industrial Power Conversion Systems Session.

André Vandenput received his M.Sc. degree in electrical power engineering from the Katholieke Universiteit Leuven, Belgium, in 1973 and his Ph.D. degree in Applied Sciences from the same university in 1977. In 1985, he received a second doctoral degree from the Faculty of Applied Science of KULeuven. From 1973 till 1991, he worked in the Laboratory for electrical Machines and Drives of the KULeuven, first as research associate of the Belgian National Fund for Scientific Research and since 1987 as Professor. In 1991 he was appointed as full time professor and chairman of the section Electro-mechanics and Power Electronics in the Electrical Engineering Department at the Eindhoven University of Technology.

From 1980 to 1981, André obtained the prestigious Alexander von Humboldt Stipendium to conduct research on the simulation of the transient behavior of induction machines at RWTH Aachen University, Germany. In 1983 and 1984 he worked as a visiting professor at the University of Colorado in Boulder, USA, on the improvement of the efficiency of small single phase induction machines. He was a research fellow of the Japan Society for Promotion of Science at the University of Tokyo in 1986, where he worked at the simulation of power converters.

André's work and main interest were the continued development of induction drives using vector control methods. Later he focused on permanent magnet machines and last but not least the famous "Flying Carpet" (Magnetically Levitated Planar Actuator with Moving Magnets), which was the last and probably the most original research achievement under his guidance. André wrote numerous research papers and holds several patents. As a teacher he taught several courses on Modern Power Conversion and Electrical Drives. He received many times student awards for the quality and clarity of his courses. The main management achievement of André Vandenput was the turnaround of his chair in Eindhoven from an average medium size research group to a top research group in electro-mechanics and power electronics in the Netherlands, with a strong international reputation. During the past decade, the productivity and quality of his chair reached an unequalled level as witnessed by the many publications in IEEE transactions. André Vandenput was one of the founders of the successful program "Electromagnetic Power Technology" which was adopted by the Dutch Ministry of Economic Affairs, stimulating many research projects in this area.

André, with his typical charming Flemish character, was patient and had lots of humor. He was a hardworking and honest person with a very high level of integrity. André was my PhD supervisor and mentor. Hence, I know from personal experience, that he always insisted on experimental validation, no matter how much time it took. He would never stop working until he had checked the thesis of his students or assistants to the very last details, teaching us to be concise, precise and focus on quality. He was loved by his students and staff and highly respected by his colleagues.

With sadness we say adieu to André, who left us all too early. We wish his mother, wife and children and grandchild all the strength to bear this heavy loss. Together with the Faculty of Electrical Engineering at TU Eindhoven, we will miss André Vandenput dearly.

Rik De Doncker
Ex-officio EPE Executive Council member

1. Wind Power to the Grid - EPE Wind Energy Chapter – 1st Seminar - 27-28 March 2008, Delft University of Technology - Delft - The Netherlands: Call for papers

Deadline 15 February!! Do not miss this opportunity to publish your latest results!!

Aim of the Seminar

As wind has become the most technically and commercially advanced as well as most promising source of renewable energy, the European Power Electronics and Adjustable Speed Drives Association (EPE) dedicated a special chapter on this issue: the EPE Wind Energy Chapter. After the successful gathering at the EPE 2007 Conference in Aalborg, it has been decided to organize a seminar dedicated to wind energy where experts can discuss various electrotechnical aspects related to the development of wind energy. This first EPE Wind Energy Chapter seminar will take place on 27 and 28 March 2008 in Delft, The Netherlands. The aim is to meet, discuss and get acquainted with the latest development of this fast developing technology.

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

Presentations from companies supplying wind turbines, wind turbine equipment, developers, utilities, etc.. are most welcome.

Presentation of papers

Contributions to the EPE Wind Energy Chapter must be presented either as a lecture presentation or as a dialogue presentation. As the aim of the seminar is orientated towards exchange of practical experience and discussion of the latest development, there will be no formal proceedings publication. Contributions to the seminar will be made available to the participants on the EPE Website with a password after the seminar.

Lecture presentations will be 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.

Contributions for dialogue presentation will be selected on basis of potential for detailed discussion and networking.

Lecture papers will be presented in Power Point or pdf format, Dialogue papers will be presented as posters in pdf format.

Additional full paper publication is encouraged but not mandatory.

Content of synopses

Authors intending to present a contribution to the EPE Wind Energy Chapter must submit a proposal that will be evaluated by the EPE Wind Energy Chapter Advisory Board.

The proposal should consist of one of the followings:

- A Power Point/pdf presentation to be presented as such during the seminar;
- A poster project to be presented as such during the seminar;
- A one page synopsis presenting the main lines of the proposed contribution that will be either a Power Point/pdf presentation or a poster;
- a maximum 6 pages full paper, including an abstract with no more than 50 words;

The proposal will include full coordinates of the contact author, the topic number and indication of the preference for dialogue or lecture presentation.

The synopses will be submitted by e-mail to bsneyers@vub.ac.be.

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

The conference full papers will also be registered in IEEEExplore. (to be confirmed)

Proceedings of the seminar will be available to the participants on the EPE Website with a password after the seminar.

Deadlines

Intending authors should note the following deadlines:

Receipt of synopses 15 February 2008

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

A provisional programme and registration form will be available on line some time before the seminar.

Additional information: <http://www.elkraft.ntnu.no/epewindchapter.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://www.elkraft.ntnu.no/epewindchapter.htm>

2. Call for papers EPE-PEMC 2008, Poznan, 1-3 September 2008 13th International Power Electronics and Motion Control Conference

!!New Deadline for synopses: 9 February 2008 !!

Contributions are invited in the following topics:

1. Semiconductor Devices and Packaging
2. Power Converters
3. Control of Power Converters
4. Electrical Machines and Actuators
5. Motion Control, Robotics, Adjustable Speed Drives
6. Application and Design of Power Electronics Systems
7. Measurements, Sensors and Observing Techniques
8. Electromagnetic Compatibility
9. Power Electronics in Transportation
10. Mechatronics Systems
11. Power Electronics in Electrical Energy Generation, Transmission and Distributions
12. Renewable Energy Sources
13. Active Filtering and Unity Power Factor Correction Circuits
14. Education
15. Related Topics

Working language is English

Paper submissions: Prospective authors are kindly invited to send synopses to the conference Secretariat. The synopses should consist of a 3 to 5 pages summary, including an abstract with no more than 50 words, key diagrams and reference list, topic number and indication of the preference for dialog or lecture presentation.

Special Session Proposals: Proposals are sought from those wishing to organize a special session. A special session consists of six papers, which should present a unifying theme from a diversity of viewpoints.

Tutorial Proposals: The conference Committee intends to arrange tutorials to be held prior to the Conference, and solicits proposals for appropriate subjects.

The submission of synopses, proposals for tutorials and special sessions will be electronically done through the EPE-PEMC 2008 web site, where you can find detailed information on submission procedures and preparation of proposals

Contacts:

Poznan University of technology
Faculty of Electrical Engineering
EPE-PEMC 2008
Conference Secretariat
60-965 Poznan, Piotrowo 3A, Poland

Phone: + 48 61 665 2627, 2737
Fax: +48 61 665 2563
e-mail: pemc@put.poznan.pl
<http://www.epe-pemc2008.put.poznan.pl>

3. Position open at the School of Electrical & Electronic Engineering Power Electronics Machines & Control Group – Nottingham University, United Kingdom for a Lecturer in Power Electronics

Applications are invited for the above post in the School of Electrical and Electronic Engineering based on the University Park campus. This is an exciting opportunity to join the Power Electronics Machines and Control Group, which is internationally renowned for research in power conversion, aerospace electrical power systems, power device and packaging technologies, ac drives and energy systems. The PEMC Group currently has eight academics and 70 researchers, and a research grant portfolio of £8.5m. This post offers significant career opportunities for suitably qualified candidates.

The School offers three-year BEng, four-year MEng and a range of MSc courses. It consistently ranks highly in all university guides and has seen considerable investment in laboratories and facilities. Further information about the School is available at: <http://www.nottingham.ac.uk/eee>.

Applications are particularly encouraged from candidates with research interests in the application of power electronics to energy systems, or power device and packaging technologies. The successful candidate will be expected to engage in research at an international level.

Candidates must be educated to PhD level, ideally in the area of power electronics, and should be able to show evidence of existing high-quality research activity and potential for future research at an internationally leading level. They will be expected to contribute to the delivery and administration of the School's undergraduate and postgraduate courses. The successful candidate will be strongly encouraged and helped to identify and develop an externally sponsored research portfolio.

Salary will be within the range £30,012 - £40,335 per annum, depending on qualifications and experience (salary can progress to £46,759 per annum, subject to performance).

Informal enquiries may be addressed to Professor M Johnson, Chair of Advanced Power Conversion, Email:

Mark.Johnson@Nottingham.ac.uk or Professor G Asher, Head of School, Email: Greg.Asher@Nottingham.ac.uk for School matters generally.

For more details and/or to apply on-line please access:

<http://jobs.nottingham.ac.uk/RUB24921E>. If you are unable to apply on-line please contact the Human Resources Department, tel: 0115 951 3262 or fax: 0115 951 5205. Please quote ref. RUB/24921E. Closing date (revised): 29 February 2008.

4. Two grants available for PhD positions in End Use of Photovoltaic Technology at University of Agder, Southern Norway

The grants are for up to 4 years with 25% teaching duty at the University. They are financed by Elkem Solar (a producer of solar grade silicon), the Research Council of Norway and the University of Agder. The yearly salary is approximately €41000. The candidates are expected to complete a PhD-degree within the 4 years. One position will focus on the development of power electronics interfaces for photovoltaic generators, whereas the other will focus on field measurements of solar cell generators at various locations, as well as constructing laboratory simulators of such systems. The application deadline is 1. March 2008.

Applications should be sent to University of Agder, Faculty of Engineering and Science, attention of Anne Lise de Lange, Servicebox 509, NO-4898 Grimstad, and marked with Reference No. 5/08. The official announcement of the position can be found here: <http://www.uia.no/stilling> (in Norwegian). Please contact Prof. Ole-Morten Midtgård for more information about the project and the application procedures (ole-morten.midtgard@uia.no, +47 37253000).

5. 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 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

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

Contact:

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Power Electronics

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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
20-21 Feb. 2008	Munich (D)	ECPE Seminar	Digital Power Conversion Techn. Chairman: Prof. J. Cobos (TU Madrid) Co-Chairman: Dr. U. Kirchenberger (STMicroelectr.)
11-13 March 2008	Nuremberg (D)	ECPE Annual Event and Conference	ECPE Annual Event 2008 in conjunction with 5th 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).