

UK Magnetics Society

one day seminar

Computer Aided Electromagnetic and Coupled Analysis for Industrial Applications

Thursday, 30 September 2004 at AREVA T&D Technology Centre, Stafford

Although electromagnetic modelling packages are now routinely used by engineers for the design and analysis of electromagnetic devices, continuous development of the available software, combined with increasing computing capabilities, is extending the capability and range of applications as well as enabling analysis of coupled problems, including: circuit driven electromagnetic devices coupled to mechanical loads; coupled electromagnetic - thermal problems; coupled electromagnetic - stress and vibration problems.

The seminar will focus on industrial electromagnetic, stress and thermal applications, employing the latest simulation tools, with particular regard to coupled problems. Advances in electromagnetic modelling as well as developments in the user interfaces which increase the usability and speed of analysis will also be presented. Accompanying the seminar will be an exhibition of the latest software and CAD tools.

PROGRAMME

from 0915 REGISTRATION/COFFEE

Chairman: Richard Clark, University of Sheffield

- 1000 WELCOME/INTRODUCTION, AREVA T&D
- 1010 *Comprehensive Analysis of Electromagnetic Applications with Coupled Thermal, Stress or Electric Circuit Effects*, Lutz Zacharias, Ansoft GmbH, Germany
- 1035 *Coupled Field Analysis and Optimisation for the Design of Magnetic Devices and Systems*, Ernie Freeman, Infolytica Ltd
- 1100 *Induction Motor Drive using FLUX to SIMULINK Technology*, Martial Busi, Sebastien Cadeau-Belliard, Marc Vilcot, Cedrat, France
- 1125 COFFEE
- 1140 *Case Studies in the Survival of Applied Classical Analysis*, Tim Miller, University of Glasgow, Dept of Elec & Elec Engineering
- 1205 *The Effects of Demagnetisation and Temperature on the Performance of an Electrical Machine*, Alex Michaelides, Chris Riley and John Simkin, Vector Fields Ltd
- 1230 LUNCH/EXHIBITION

Chairman: Alex Michaelides, Vector Fields Ltd

- 1400 *Coupling Thermal and Electromagnetic Analysis Software*, Dave Staton, Motor Design Ltd
- 1425 *The Structural/Electromagnetic/Circuit Coupling of a Linear Alternator and its Challenges*, Kok-Cheong Tang, IDAC Ltd
- 1450 *Finite Element Modelling of Coupled Multi-Physics Problems*, Dave Rodger, Hong Cheng Lai, University of Bath, Dept of Elec & Elec Engineering
- 1515 TEA
- 1530 *Coupled Finite Element Analysis of Electromagnetic Actuators and Sensors*, Richard Clark, University of Sheffield, Dept of Elec & Elec Engineering
- 1555 *Industrial Applications of Superconductor Modelling*, Ellis Chong, AREVA T&D Technology Centre
- 1620 END

The UK Magnetics Society accepts no responsibility or liability in any way whatsoever for any statements made or opinions expressed during this event

PLEASE COMPLETE AND RETURN TO:

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I wish to attend The UK Magnetics Society one-day seminar *Computer Aided Electromagnetic and Coupled Analysis for Industrial Applications*, Thursday, 30 September 2004, at AREVA T&D Technology Centre, and enclose remittance to cover technical sessions, seminar documentation, refreshments and lunch (cheques made payable to 'The UK Magnetics Society' and drawn on a UK bank). Payment may also be made by bank transfer: The UK Magnetics Society, Barclays Bank plc 17 Market Place, Wantage, Oxon OX12 8AG, UK, Account No 50893293, Sort Code No: 20-90-91; *please add on £10 to cover bank charges if paying by bank transfer from overseas.*

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<input type="checkbox"/> Exhibition/display	£50.00	£8.75	£58.75

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**AREVA T&D
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