

# UK Magnetics Society

Grove Business Centre Grove Technology Park Wantage Oxfordshire OX12 9FA UK  
tel: +44 (0) 1235 770652 fax: +44 (0) 1235 772295 email: jward@ukmagsoc.co.uk  
www.ukmagsoc.org

one day seminar

## ***Developments in Distribution and Power Transformers***

**Thursday, 20 October 2011**

at

**Rooms SR 1 & 2, Trevithick Building, Cardiff University, CF24 3AA**

The evolution of distribution and power transformers often passes unnoticed due to their ubiquitous nature. However, the demands placed upon such devices continue to grow and as energy reserves dwindle, the efficiency of each element within the distribution network becomes ever more critical. Higher efficiency and low levels of acoustic noise must be achieved, whilst also accounting for a wide range of operational and environmental factors. The introduction of renewable energy sources and DC links, further add to the challenges faced by transformer manufacturers.

In parallel with the developments in transformer design, new grain oriented electrical steel processing techniques are producing lower loss core material to meet the efficiency targets whilst also addressing factors such as magnetostriction.

This meeting will look at new developments in transformer technology and how transformer manufacturers and electrical steel producers are responding to the challenges introduced by the changing landscape.

### **PROGRAMME**

Chairman: Dr Phil Anderson, Wolfson Centre for Magnetism,  
Cardiff University

Chairman: Steven Turner, National Physical Laboratory

from 0900 REGISTRATION/COFFEE

1000 **WELCOME/INTRODUCTION**

1015 ***The Parallel Development of Transformer  
Magnetic Circuit and Core Steel***  
Filippos Marketos, ALSTOM Grid, France

1345 ***Review of the Effect of Intrinsic Permeability  
and Externally Applied Domain Refinement on  
Transformer Building Factor of Stacked Core  
Type Transformers***

Jerry Schoen, AK Steel Corporation, USA

1045 ***State of the Art and Future Challenges for  
Distribution Transformers***  
Branimir Cucic, Koncar Distribution and Special  
Transformers Inc, Croatia

1415 ***The Cause of Valve-Side DC Bias Current and  
its Effect on the Power Transformer***  
Tianning Xu, ALSTOM Grid UK Limited

1115 ***Development of the Next Generation of Low  
Noise Power Transformers***  
Werner Boonen, CG Power Systems Belgium NV,  
Belgium

1445 ***Power Quality Issues and Measurement***  
Brian Tait, National Physical Laboratory

1145 ***Effects of Burrs on Transformer Cores***  
Rafal Mazurek, Wolfson Centre for Magnetism,  
Cardiff University

1515 ***Prediction of Building Factors in Transformers***  
Professor Tony Moses, Wolfson Centre for Magnetism,  
Cardiff University

1215 LUNCH

1545 TEA/COFFEE - END OF SEMINAR

**PLEASE COMPLETE AND RETURN TO:**

**Jane Ward, UK Magnetics Society, Grove Business Centre, Grove Technology Park, Wantage, Oxon OX12 9FA**  
 tel: +44 (0)1235 770652 fax: +44 (0)1235 772295 email: jward@ukmagsoc.co.uk www.ukmagsoc.org

I wish to attend the UK Magnetics Society one-day seminar *Developments in Distribution and Power Transformers*, to be held on Thursday, 20 October 2011 at Cardiff University 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: UK Magnetics Society, Barclays Bank plc, 17 Market Place, Wantage, Oxon OX12 8AG, UK, Acct No 50893293, Sort Code No: 20-90-91, IBAN:GB98 BARC 2090 9150 8932 93, SWIFTBIC: BARCGB22. **Please add £10 to cover bank charges if paying by bank transfer from overseas.**

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If you wish to pay by VISA/Mastercard/Delta etc, please complete all sections of the form below.

	FEE*	VAT	TOTAL
<input type="checkbox"/> UKMAG Members	£ 85.00	£17.00	<b>£ 102.00</b>
<input type="checkbox"/> As above [student]	£ 25.00	£ 5.00	<b>£ 30.00</b>
<input type="checkbox"/> Non-members	£ 180.00	£36.00	<b>£ 216.00</b>
<input type="checkbox"/> Non-member students	£ 45.00	£ 9.00	<b>£ 54.00</b>

\* 3 delegates get 50% off the third person (cheapest rate applies). For bookings of more than 3 people, please contact Jane Ward

**PLEASE NOTE REFUNDS CANNOT BE MADE FOR CANCELLATIONS RECEIVED 72 HOURS PRIOR TO THE SEMINAR**

**PLEASE REGISTER BY 10 OCTOBER IF POSSIBLE**

Surname.....		First name.....	
Title (Dr/Mr/Mrsetc) .....		Organisation.....	
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