

# UK Magnetics Society

one day seminar

## Advances in Electrical Machines and Drives

Tuesday, 28 February 2006

at University of Sheffield

Department of Electronic and Electrical Engineering

This seminar offers presentations from both academic institutions and commercial organisations on recent advances in electrical machines and their power electronic controllers for applications in a wide range of market sectors. With continued developments on advanced magnetic materials, there has been a drive to increase performance parameters such as power density and efficiency in electrical machines. New topologies are also being developed to achieve desired performance targets as well as effect necessary cost improvements. The improvement in, and matching of, the power electronic converters and control circuits to drive these machines is of equal importance and has seen significant development that will be reviewed in the seminar.

### PROGRAMME

from 1000 REGISTRATION/COFFEE

Chairman: Dr Richard Clark, University of Sheffield,  
Dept of Electronic & Electrical Engineering

Chairman: Dr Alex Michaelides, Vector Fields Ltd

1030 WELCOME/INTRODUCTION

1035 **Electric Torque Boost System for Down-Sized ICE Vehicles**, Dr Jiabin Wang, University of Sheffield, Dept of Electronic & Electrical Engineering

1105 **Advances in Machine Topologies and Construction Methods**, Prof Alan Jack, University of Newcastle-upon-Tyne, School of Elec, Elec & Computer Engineering

1135 **Low Cost, Energy Efficient Linear Drives for Refrigeration Compressors**, Dr Chris Riley, Magnet Applications Ltd

1205 **Switched Reluctance Integrated Turbo-generator Gas Energy Recovery System**, Paul Sykes, SR Drives Ltd

1235 LUNCH

There will be an opportunity to visit the Electrical Machines and Drives Group Research Laboratories

1400 **Direct Power Converters for AC Drives**, Prof Jon Clare and Dr Patrick Wheeler, University of Nottingham, Dept of Electrical & Electronic Engineering

1430 **Torque Control of an Integrated Permanent Magnet Machine for Mild Hybrid Vehicle Applications**, Dr Abdeslam Mebarki, Newage AVKSEG

1500 **Advances in Permanent Magnet and Reluctance Motor Drives**, Prof Charles Pollock, Tecnelec Ltd

1530 **Beyond 2T - A Search for High Power Density**, Dr Malcolm McCulloch, University of Oxford, Dept of Engineering Science

1600 END/TEA

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:

Margaret Swadling, The UK Magnetics Society,  
Grove Business Centre, Grove Technology Park,  
Wantage, Oxon OX12 9FA

tel: +44 (0)1235 770652 fax: +44 (0)1235 772295

email: mswadling@ukmagsoc.co.uk

www.ukmagsoc.org

I wish to attend The UK Magnetics Society one-day seminar **Advances in Electrical Machines and Drives**, Tuesday, 28 February 2006, at University of Sheffield, 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, Acct No 50893293, Sort Code No: 20-90-91; please add £10 to cover bank charges if paying by bank transfer from overseas.

If you wish to be invoiced, please give Purchase Order number, if appropriate. PO Number.....

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

	Fee	VAT	TOTAL
<input type="checkbox"/> UKMAG member organisation	£69.00	£12.08	£81.08
<input type="checkbox"/> As above [student]	£20.43	£3.57	£24.00
<input type="checkbox"/> Non-member	£146.00	£25.55	£171.55
<input type="checkbox"/> Non-member student	£34.00	£5.95	£39.95

Please register by 20 February 2006 if possible

Surname.....

First name.....Title (Dr/Mr/Mrs etc).....

Organisation.....

Address.....

.....

Tel.....

Fax.....

Email.....

Web.....



For payment by  
VISA/Mastercard/Delta/Electron/  
JCB/Solo/Maestro/Switch/AMEX:

*Please complete in BLOCK CAPITALS  
and return to:*

Margaret Swadling  
The UK Magnetics Society  
Grove Business Centre  
Grove Technology Park  
Wantage  
Oxon OX12 9FA  
tel: +44 (0)1235 770652  
fax: +44 (0)1235 772295  
email: mswadling@ukmagsoc.co.uk  
www.ukmagsoc.org

Card Number:	<input type="text"/>
Start Date:	<input type="text"/>
Expiry Date:	<input type="text"/>
Name of Cardholder:	<input type="text"/>
Mailing address of Cardholder:	<input type="text"/>
Signature of Cardholder:	<input type="text"/>

**UK Magnetics  
Society**

One-day seminar  
**Advances in  
Electrical Machines  
and Drives**  
Tuesday, 28 February 2006  
at  
University of Sheffield  
Dept of Electronic and Electrical  
Engineering