

# UK Magnetics Society

## 18<sup>th</sup> Ewing Lecture

### *Advances in Electric Machines: Topology, Materials and Construction*

Wednesday, 1 December 2004

Presented by Professor Alan Jack, University of Newcastle,  
School of Electrical, Electronic & Computer Engineering

at

The Royal Society, London

Despite the fact that very little in electrical machines is truly novel there continues to be much innovation in their design, construction and application. Advances in power electronics, magnetic materials, both hard and soft, production techniques and applications are producing significant change. The terms "all electric ship", "more electric aircraft", the move to hybrid and full electric vehicles and the ubiquity of electrically driven automation systems attest to this.

The lecture will describe the state of the art as viewed from the speaker's research group. It will include fault tolerant drives, very high specific output permanent magnet machines, advances in switched reluctance machines, the exploitation of soft magnetic composites and new methods of construction offering higher specific output whilst at the same time lowering production costs.

from 5pm Registration/Tea  
6-7pm Lecture  
7:15pm Buffet supper

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  
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email: mswadling@ukmagsoc.co.uk, www.ukmagsoc.co.uk

I wish to attend the 18<sup>th</sup> Ewing Lecture, *Advances in Electric Machines: Topology, Materials and Construction*, Wednesday, 1 December 2004, at The Royal Society, London, and enclose remittance to cover refreshments, Lecture, buffet supper - **cheques made payable to 'The UK Magnetics Society', 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**.

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To ensure a place at this Lecture, please register by 15 November 2004

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Professor Alan Jack  
Dept of Electrical, Electronic &  
Computer Engineering  
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