



The Royal Academy
of Engineering



Lecture Series in Mobile Telecommunications and Networks

To the Edge of Chaos? The complexity and the promise of a technology and service-neutral future

Speaker: Dr Linda Doyle

Date: Friday 3 October 2008

Venue: 3 Carlton House Terrace, London SW1Y 5DG

A communications revolution has delivered global and flexible access to information, leading to major benefits to society. The pioneering contributions of engineers and researchers have been at the heart of this development, in particular in the field of mobile communications and networking technologies, including Wireless Local Area Networks and mobile phones. The first landmark of true mobile telephony was the GSM network, followed by a range of broadband and digital cellular technologies. To recognise the innovations and technical significance made by engineers, The Royal Academy of Engineering, with the generous support of VODAFONE, is running the third year of an annual lecture series in Mobile Telecommunications & Networks.

The Academy and VODAFONE are now proud to welcome their eighth speaker in the series; **Dr Linda Doyle**, Department of Electronic & Electrical Engineering Trinity College, Dublin

Technology and service-neutrality taken to its limit will open the way for communications services to follow the market in a dynamic and adaptive fashion. In embracing this we move away from traditional spectrum planning and traditional interference mitigation techniques to a brave new world.

The technology challenges, the policy challenges, the political challenges and the economics challenges are both great and exciting.

Cognitive radio, dynamic spectrum access, self-organising networks, negotiated co-existence, Coasean bargaining, just-in-time spectrum, elastic auctions.....and many other concepts have a role to play.

The lecture explores the technology and service-neutral future, its promises, its desirability (or lack thereof!) and its feasibility.



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Linda Doyle is an Associate Professor in the Department of Electronic & Electrical Engineering in Trinity College, University of Dublin, Ireland. Her main research role is as leader of the Emerging Networks Research Strand in the Centre for Telecommunications Value-chain Research (CTVR). CTVR was established in July 2004 and is funded by the Science Foundation of Ireland.

The CTVR brings together a multi-disciplinary group of researchers to work on industry-guided engineering and scientific challenges that will redefine key elements of telecommunication systems of the future. The interaction between industry and academia is therefore a key part of the research. Linda's team has established an international profile in the area of dynamic spectrum access, cognitive radio and reconfigurable networks. Linda also has a research group, the Disruptive Design Team, that focuses on art and technology.

Friday, 3 October 2008

5.30pm for 6.00pm

Venue:

3 Carlton House Terrace, London SW1Y 5DG

Programme:

5.30 pm Registration

6.00 pm Lecture and Question & Answer session

7.30 pm Drinks reception

8.00 pm Close

Chairman

Professor Mike Walker FREng, Vodafone Group R&D

Steering Committee

Helen Berrington, The Royal Academy of Engineering

Professor Lajos Hanzo FREng, University of Southampton

Professor John Gardiner FREng, University of Bradford

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Professor John Midwinter OBE FREng FRS, University College London

Professor Jon Crowcroft FREng, University of Cambridge

For further information on the lecture series please visit www.raeng.org.uk/events



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I wish to attend the Seminar and Reception (**there is no charge**)

Title: _____ First Name: _____

Surname: _____ Honours: _____

Position: _____

Organisation: _____

Email: _____

Address: _____

Postcode: _____ Telephone: _____

Guest:

Title: _____ First Name: _____

Surname: _____ Honours: _____

Position: _____

Organisation: _____

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Please return this form to: Helen Berrington, Assistant Manager, Events
helen.berrington@raeng.org.uk tel 020 7766 0631 fax to 020 7930 1549 or post to
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