



The Royal Academy
of Engineering

UK Focus for
Biomedical Engineering

EPSRC

Engineering and Physical Sciences
Research Council

Robotic and Computer Assisted Surgery: delivering the promise

Briefing Seminar

1.45pm, 24 June 2008
3 Carlton House Terrace, London, SW1Y 5DG



Robotic and Computer Assisted Surgery: delivering the promise

Robotic and computer assisted surgery originated in the mid 1980's. Early research contained considerable promise, but successful clinical application was limited. A number of the clinical procedures did not extend beyond limited trials undertaken by dedicated and enthusiastic surgeons. Only recently have systems become cost-effective; they are now being widely applied in a range of clinical application areas.

Much has been learned from early experiences, and we have now moved from an era of technology "push", to clinical "pull", in which the needs of the surgeons are much better understood and the systems are structured to provide a clear cost-benefit in the operating room. The speakers will present a number of robotic and computer-assisted surgery applications which, whilst using the latest technological solutions, also provide clear clinical benefits that justify the use of these technologies in a wide range of surgical procedures. Current trends in research show that not only are the barriers to entry being overcome but this area will have a considerable influence on future healthcare. At last, the promise of robotic and computer-assisted surgery is being delivered.

Programme

1.45pm Registration

2.15pm Introduction

Professor Anthony Unsworth FREng, Chair, UK Focus for Biomedical Engineering

2.20pm Computer Assisted Navigation in Orthopaedics

Professor Justin Cobb, Professor of Orthopaedic Surgery, Charing Cross Hospital

2.45pm Cost-Effective Robotic Surgery

Professor Brian Davies FREng, Professor of Medical Robotics, Imperial College London

3.10pm Advanced Technologies for Microsurgery

Professor Peter Brett, Professor of Biomedical Engineering Systems, Aston University

3.35pm Break

4.00pm Robotic Neurosurgery

Dr Patrick Finlay, Scientific Officer, Prosurge Ltd, UK

4.20pm The Practical Implementation of Robotic Surgery

Professor Tim Leuth, Professor of Computer Assisted Surgery, University of Munich, Germany

4.50pm Discussion

Led by Professor Brian Davies FREng

5.30pm Drinks reception and Close

Robotic and Computer Assisted Surgery: delivering the promise

24 June 2008

Registration Form

I wish to reserve place(s) for the event

Title	First name
Surname	Honours
Position	
Organisation	
Address	
	Postcode
Telephone	Email

I would like to bring a guest(s)

Title	First name
Surname	Honours
Position	
Organisation	Email

Title	First name
Surname	Honours
Position	
Organisation	Email

Please return to:

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Please detach and return booking form only

The Royal Academy of Engineering

As Britain's national academy for engineering, we bring together the country's most eminent engineers from all disciplines to promote excellence in the science, art and practice of engineering. Our strategic priorities are to enhance the UK's engineering capabilities, to celebrate excellence and inspire the next generation, and to lead debate by guiding informed thinking and influencing public policy.

The Academy's work programmes are driven by three strategic priorities, each of which provides a key contribution to a strong and vibrant engineering sector and to the health and wealth of society.

Enhancing national capabilities

As a priority, we encourage, support and facilitate links between academia and industry. Through targeted national and international programmes, we enhance – and reflect abroad – the UK's performance in the application of science, technology transfer, and the promotion and exploitation of innovation. We support high quality engineering research, encourage an interdisciplinary ethos, facilitate international exchange and provide a means of determining and disseminating best practice. In particular, our activities focus on complex and multidisciplinary areas of rapid development.

Recognising excellence and inspiring the next generation

Excellence breeds excellence. We celebrate engineering excellence and use it to inspire, support and challenge tomorrow's engineering leaders. We focus our initiatives to develop excellence and, through creative and collaborative activity, we demonstrate to the young, and those who influence them, the relevance of engineering to society.

Leading debate

Using the leadership and expertise of our Fellowship, we guide informed thinking, influence public policy making, provide a forum for the mutual exchange of ideas, and pursue effective engagement with society on matters within our competence. The Academy advocates progressive, forward-looking solutions based on impartial advice and quality foundations, and works to enhance appreciation of the positive role of engineering and its contribution to the economic strength of the nation.

UK Focus for Biomedical Engineering

The UK Focus for Biomedical Engineering provides a forum through which the principal organisations concerned with biomedical engineering can communicate, debate and act jointly upon issues which affect the field as a whole. It seeks to influence high level decision makers in the Department of Health, central government, research funding sources and industry by highlighting the important contribution that biomedical engineering makes to healthcare and by encouraging industry to exploit the opportunities available in this field.



The Royal Academy of Engineering promotes excellence in the science, art and practice of engineering.

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