



The Royal Academy
of Engineering

UK Focus for
Biomedical Engineering

Support for an Ageing Population: selecting appropriate technology

Briefing Seminar

1.45pm, 15 January 2008
3 Carlton House Terrace, London, SW1Y 5DG



Support for an Ageing Population: selecting appropriate technology

The progressive decline in functional capacity of various body organs and systems is an inevitable consequence of biological ageing. This seminar will provide an overview of the major issues faced by the UK's ageing population and examine the technologies available to remedy problems.

The rate of decline of body organs and functions is variable. We suggest that the relevant technologies can be categorised in three ways: *Informed* – where novel sensors are used to provide feedback on critical physiological variables; *Supported* – where technologies (including joint replacements and hearing aids) maintain almost complete independence and *Dependent* – where autonomous homes and other developments maximise personal independence. The speakers will refer to these categories while focusing on three important areas of technology support: musculoskeletal issues, inclusive design and the challenge of dementia.

Programme

1.45pm Registration

2.15pm Introduction

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

2.20pm Ageing population: challenges for healthcare

Dr Louise Robinson, Institute for Ageing and Health, Newcastle University

2.45pm Ageing population: a framework for technology

Professor Garth Johnson FEng, Institute for Ageing and Health, Newcastle University

3.10pm Frailty: a challenge for bones and joints

Dr Anthony Bull, Department of Bioengineering, Imperial College

3.35pm Break

4.00pm From assistive technology to inclusive design: the data challenge

Professor Peter Gore, Newcastle University and ADL Smartcare Ltd

4.25pm New designs for the home: the challenge of dementia

Professor Roger Orpwood, Bath Institute of Medical Engineering

4.50pm Discussion

5.30pm Drinks reception and close

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Registration Form

I wish to reserve ticket(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

Please detach and return booking form only

Title	First name
Surname	Honours
Position	
Organisation	Email

Please return to: Xameerah Malik, The Royal Academy of Engineering,
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Registered Charity Number: 293074

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.

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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.

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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.



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