

Sensors and Actuators for Biomedical Applications

Michael Swann Building, The University of Edinburgh

20th May, 2009

This meeting has been organised by the Centre for Biomedical Engineering at Edinburgh (CBEE) in conjunction with the Division of Pathway Medicine and the Joint Research Institute for Integrated Systems (IIS) (part of the Edinburgh Research Partnership in Engineering and Mathematics). It will explore the wide range of activities in microsystems engineering for biomedical related applications being undertaken by members of the CBEE and the IIS and their various collaborators at the Universities of Edinburgh and Heriot Watt.

Morning Session (Chair: Stewart Smith)

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| 10.00 | <i>Welcome</i> | Prof. Bill Easson, Director - Centre for Biomedical Engineering (UoE) |
| 10.05 | <i>Biomedical Applications of CMOS Single Photon Avalanche Diode Arrays</i> | Dr. Robert Henderson, IIS, School of Engineering (UoE) |
| 10.30 | <i>3D Axis Accelerometer for Monitoring of Heart Wall Motion</i> | Dr. Craig Lowrie, IIS, School of Engineering and Physical Sciences (HWU) |
| 10.55 | <i>Coffee Break</i> | |
| 11.30 | <i>Sensors for Proteins and other Cell Markers</i> | Dr. Colin Campbell, EaSTCHEM Fellow, School of Chemistry and Division of Pathway Medicine (UoE) |
| 11.55 | <i>Microfluidic Manipulation for Lab-on-a-Chip Applications</i> | Prof. Anthony Walton, IIS, School of Engineering (UoE) |
| 12.20 | <i>4-D Imaging and Tracking</i> | Prof. Alan Greenaway, IIS, School of Engineering and Physical Sciences (HWU) |
| 12.45 | <i>Lunch + Poster Session</i> | |

Afternoon Session (Chair: Alan Greenaway)

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| 14.00 | <i>Dielectrophoresis as a Biomedical Research Tool</i> | Prof. Ronald Pethig, IIS, School of Engineering (UoE) |
| 14.25 | <i>Switchable Biosensors: the design, formation and control of DNA HJ sensor systems</i> | Dr. Andrew Mount, School of Chemistry (UoE) |
| 14.50 | <i>An Implantable Drug Delivery System with Wireless Power and Communication</i> | Dr. Stewart Smith, IIS, School of Engineering (UoE) |
| 15.15 | <i>Coffee Break</i> | |
| 15.45 | <i>Nanomechanical Cantilever Sensor Arrays for Biochemical Detection and Cell Analysis</i> | Dr. Will Shu, IIS, School of Engineering and Physical Sciences (HWU) |
| 16.10 | <i>Neurons on Silicon: Cell Patterning Techniques</i> | Dr. Evangelos Delivopoulos, IIS, School of Engineering (UoE) |
| 16.35 | <i>Microsystems Technology for Protein Analysis in the RASOR Proteomics Collaboration</i> | Dr. William Parkes, IIS, School of Engineering (UoE) |
| 17.00 | <i>Closing Remarks</i> | Prof. Anthony Walton, Director of the Institute for Integrated Systems |

Registration

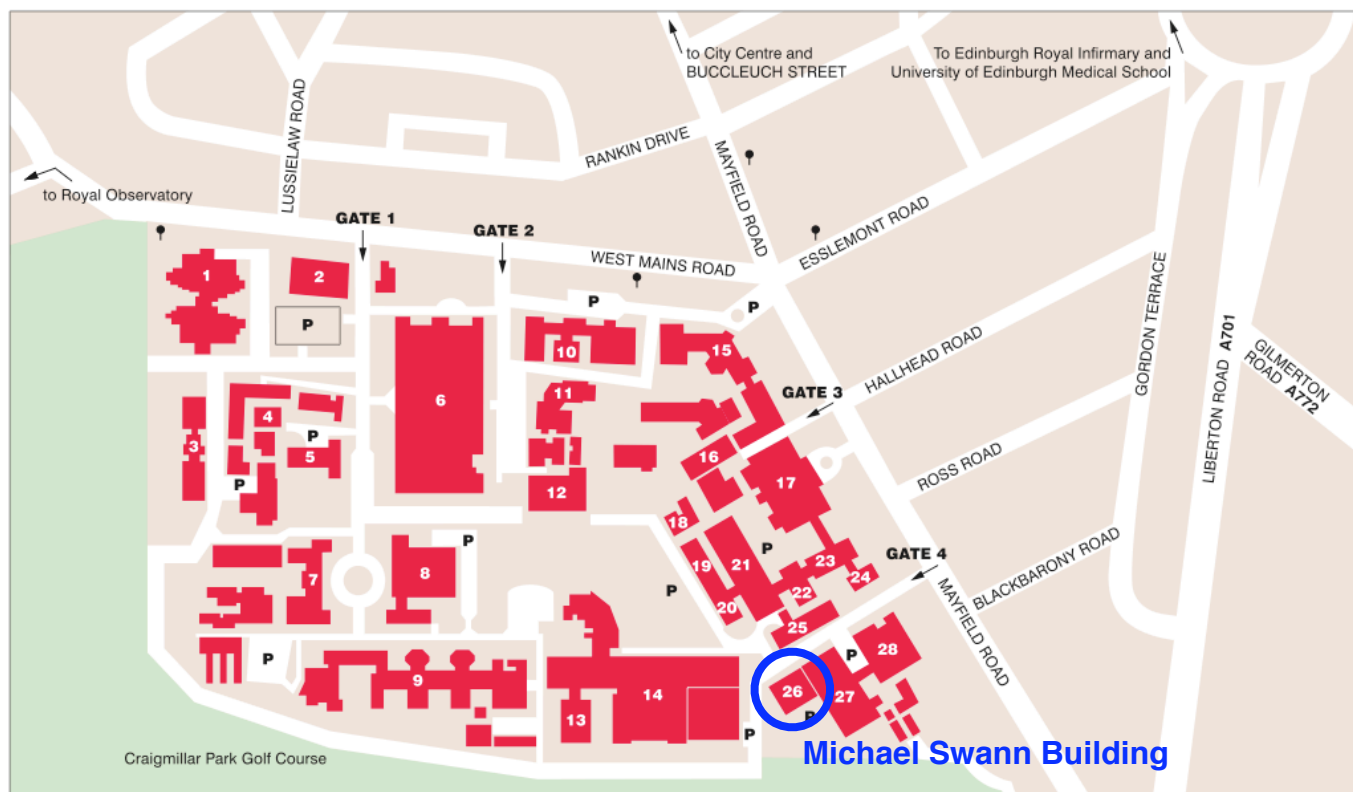
There will be no charge for attendance, but registration is required.

To register, please contact Avril Davies: avril.davies@ed.ac.uk Tel: 0131 650 4860

Poster Session: An informal poster session will take place during the lunch break. If you would like to display a poster then please notify Avril when registering so that space can be allocated.

Location

Main lecture theatre, Michael Swann Building, King's Buildings, Edinburgh, EH9 3JF



Online Map: <http://www.ed.ac.uk/maps/buildings/michael-swann-building>

Parking: There is no parking available on the King's Buildings campus without a University permit, please tell Avril when you register if you require a visitor's parking permit. More information can be found here: <http://www.transport.ed.ac.uk/parking/>

Public Transport: Lothian buses which serve the King's Buildings campus include the numbers 24, 38, 41, 42 and 67. The number 38 may be of particular interest for colleagues from the College of Medicine and Veterinary medicine as it also serves the Western General Hospital and the Royal Infirmary.

See: <http://www.lothianbuses.com/>

For further information please contact the organiser:

Stewart Smith: Stewart.Smith@ed.ac.uk Tel: 0131 650 5607