NEW MSc PROGRAMME IN HUMAN AND BIOLOGICAL ROBOTICS FOR 2016/17

Capitalising on the excellence in robotics at Imperial the Department have developed a new one-year MSc programme in Human and Biological Robotics beginning in October 2016!

The course arises from the Imperial Robotics Forum, which groups together robotics researchers at Imperial and forms one of the largest institutional robotics networks. Particular strengths of the forum include robotics for humans and society, including medical robotics, service and social robotics, rehabilitation technology, as well as related machine vision, artificial intelligence and machine learning.

Research arising from the Robotics Forum is multi-disciplinary and at the cutting edge of several disciplines.

The new programme will allow students to work in a truly inter-departmental and cross-disciplinary environment, in a pioneering and rapidly growing sector.

This MSc builds upon the unique strengths of the Department of Bioengineering and Imperial in this new field. The programme will focus on the emerging research field of Human and Biological Robotics - robotics of humans and animals, robotics for humans, including:

- The use of tools and techniques from robotics to investigate the sensorimotor control in humans and animals;
- The development of robotics tools to assist humans, e.g. interfaces to working in hazardous environments or with physically or neurologically impaired individuals.

You can find out more about the programme on our website.

A SUMMER OF CHANGE

Students and researchers may have been aware of some office moves over the last few months, with the continued expansion of the Department the changes are continuing over the summer.

The major change, which will impact continuing over the summer.

The bioengineering student study room, which was previously based in RSM3.21c is temporarily in RSM 3.06-3.07 while the new study room 3.06-3.07 is being refurbished.

The teaching office has now moved to RSM3.03 while the new teaching office has moved to refurbished.

PUBLICATION SPOTLIGHT

Be sure to check out the Department’s recent publications:


Blount BA, Driessen MRM, Ellis T. GC Preps: Fast and Easy Extraction of Stable Yeast Genomic DNA. Scientific Reports 6, Article number: 26863 (2016) doi: 10.1038/srep26863


PUBLICATION FROM IGEM 2014 PROJECT

Dr Ben Almquist gave an invited talk at the “Fibroblast Growth Factors in Development and Disease GRC” in Hong Kong on 9 June. Dr Almquist’s talk was entitled “Nanotechnology-Based Strategies for Manipulating Growth Factor Signalling”.

Dr Claire Higgins gave an invited talk on ‘The Role of Fibroblast Condensation in Hair Neogenesis’ at the European Hair Research Society annual meeting, held in Tbilisi, Georgia.

Dr Angela Kedgley and Dr Jenna Stevens-Smith delivered the Headsart Engineering Summer school which included the 17 year old students from Hong Kong Polytechnic University. The visitors were the first to hear about the Department’s new degree programmes (pictured below).

Liam Madden recently hosted 30 second year undergraduates and staff from Hong Kong Polytechnic University. The visitors were the first to hear about the Department’s new degree programmes (pictured above).

Susan Mulcahy who recently completed her data-driven PhD in the Department, has joined Imperial’s Corporate Partnerships team, developing partnerships with industry in order to fund academic research. Susan is based in the Data Science Institute but also supports partnerships in the Faculty of Engineering as well as the Business School. Dr Mulcahy will continue to teach the “Intro to MATLAB” class to postgraduates in the Bioengineering department.

A number of members of the Department were recognised for their exceptional work or service in the past year at a special Summer Garden party on 1 June, hosted by the President, Professor Alice Gast. Those invited from the Department included Dr Emma Bailey, Dr Claudia Clopeth, Professor Colin Caro, Ken Keating, Dr Angela Kedgley, Dr Sylvain Ladame, Sihao Lu, Britta Ross, and Dr Jenna Stevens-Smith.

On 19 June members of the Weinberg group took part in the annual London to Brighton cycle to raise money for the British Heart Foundation.

Frances England (2nd year MEng) has been awarded a Wellcome Trust Biomedical Vacation Scholarship to do undergraduate research in the Almquist Lab this summer.

Bioengineering undergraduates Anisha Malde (4th Year MEng Biomedical Engineering in 2016-17) (Brian Locke Award) and Franz Tapia-Chaca (2nd Year MEng Biomedical Engineering in 2016-17) were awarded Undergraduate Old Centralians’ Trust awards. The Old Centralians’ Trust is the charitable arm of the City & Guilds College Association (CGCA) of twenty undergraduate students have won awards, two from each of the ten Departments of the Faculty of Engineering.

Matthieu Komorowski (Faisal group) awarded Royal Society of Medicine Research and Innovation prize and £500 for his work "Beyond the Surviving Sepsis Campaign: the Surviving Sepsis Computer" the research based on his MRes and ongoing PhD. As part of the prize Matthieu will be invited to give an oral presentation at an upcoming Section meeting to present his project.

Harris Konnaris (Faisal Group) has been awarded Finalist Best Paper Award at IEEE Biorobotics in Singapore (29 June), for his novel robotic hand and thumb design that enables complex in hand object manipulation such as texting. The patent was filed by Imperial Innovations in June.

Major DS Edwards (CBIS) has won the Gauvain Society Research Prize on his Meta-analysis of Terrorist Bombings.

A hundred researchers, staff and students from the Department were invited to the Imperial’s Corporate Partnerships team. The visitors were the first to hear about the Department’s new degree programmes (pictured below).

Departmental Seminars Thursdays 12:00-13:00
16 Jun 2016 12:00 - 13:00 RSM2.28 Multiscale and Multiphysics Modeling of Body Armours and Bio mechanics
Professor Young Kwon from the Department of Mechanical and Aerospace Engineering, Naval Postgraduate School, California will talk.

20 Jun 2016 12:00 - 13:00 RSM2.28 Bringing EEG into Real-Life Applications
Professor Maarten De Vos, Associate Professor in Engineering Science, University of Oxford.

28 Jun 2016 12:00 - 13:00 RSM 1.31 Advances in CT In-Vivo Imaging: applications in preclinical disease models
Dr Sasha Belenkov, a PerkinElmer Application Scientist

Imperial Events
09 Jun 2016 17:30 - 18:30
Manoeuvrability on the fly
Inaugural lecture of Professor Holger Krapp

15 June 2016
Neurotechnology seminar
Professor Peter Dayan, Gatsby Computational Neuroscience Unit, UCL and Dr Mark Humphries, University of Manchester
http://www3.imperial.ac.uk/newsandeventsppgrg/imperialcollege/engineering/centreofneurotechnology/eventssummary/event_6-5-2016-11-23-6

15 June 2016 17:30-18:30
2016 Bioengineering Annual Lecture
Professor James Collins
Imperial College London, South Kensington campus
http://www.imperial.ac.uk/bioengineering/about/bioengineering_lecture/

27 Jun 2016
Bioprocess engineering strategies for stem cell-based therapies and regenerative medicine
Distinguished Chemical Engineering Seminar given by Professor Joaquim M. S. Cabral, Instituto Superior Tecnico, Portugal

Conferences
14-15 July 2016
Precision Medicines Conference 2016
South Kensington, London
Including talks from Sylvain Ladame, Armando del Río Hernandez and Molly Stevens from the Department

5-8 September 2016 (abstract deadline 6 May)
Institute of Biomedical Engineering, University of Oxford
Website: http://meibieng.org/

7-9 September 2016
Young Researchers’ Futures Meeting 2016
Medical Imaging and Interventions: engineering a better look at cancer
Imperial College London, South Kensington campus
Website: http://www.yrfm.uk/

12-14 September 2016
Medical Physics and Engineering Conference 2016 (MPEC)
Science for patient benefit
Manchester
Website: www.ipem.ac.uk/ConferencesEvents/MPEC.aspx

5-8 October 2016
2016 BMES Annual Meeting
Innovation at the Interface (abstract deadline 26 April)
Minneapolis Convention Center, Minneapolis, Minnesota, USA
Website: bmes.org/annualmeeting

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