



Dear Oxford Engineer,

I am pleased to report that it has been an excellent few months for the Department of Engineering Science. We have made substantial progress with our plans for expansion, which are very much needed for us to be able to compete with the expansion of Cambridge engineering into West Cambridge and the new facilities on the campus which Imperial College is building at White City in West London.

Information Engineering

Central to our vision is the desire to grow research capacity in key themes, with Information Engineering as a top priority at the moment, after the highly successful expansion of biomedical engineering in the last decade.

The global need for Information Engineering is a direct reflection of our desire to acquire knowledge and improve our lives. We now process more information in a day than is contained in all the written books of humankind. We build seeing machines, phones, robots and cars, which provide us with superhuman competencies and extraordinary perspectives of our environments.

Information Engineering is vital to our economy, our society, our healthcare and indeed the exploration of physical and biological systems. The department has built a rich heritage in this area since

Professor Sir Michael Brady arrived in Oxford thirty years ago as the first Chair in Information Engineering, but we need to be proactive to remain international leaders.

I am delighted to announce that we are planning a new landmark building (on the Radcliffe Observatory Quarter site, between the Maths Institute and the Blavatnik School of Government), which addresses the need for world-class accommodation in Information Engineering, and underpins our ambitious long-term strategy.

Planning for this new building is well underway, and in parallel I am exploring external funding opportunities. It is clear that individual philanthropy will have a crucial role to play in realising this vision and I would be pleased to share more details with you if you are interested.



Queen's Anniversary Prize

On 25 February several of us visited Buckingham Palace to receive the Queen's Anniversary Prize, awarded for the University's pioneering work in biomedical engineering. Awarded every two years, the Queen's Anniversary Prizes recognise universities and colleges which have demonstrated excellence, innovation, impact and societal benefit.

Our Institute of Biomedical Engineering (IBME) has been at the forefront of innovation in medical technology for the past seven years, hosting world-leading projects such as the first human liver to be kept alive at body temperature outside the body. Research carried out at the IBME has led to the establishment of ten commercial spinout companies, including OxSonic (ultrasound therapy), Oxehealth (cameras as health monitors), Intelligent Ultrasound (quality assurance of imaging services), and CN BioInnovation (fast-tracking of new drugs) – see <http://www.ox.ac.uk/news/2016-02-26-oxford-presented-queens-anniversary-prize-buckingham-palace> for further details.

Engineering, Entrepreneurship and Management

Since I last wrote the University has approved our plans for a new option in Engineering, Entrepreneurship and Management (EEM) in our undergraduate course.

The UK will need more highly trained engineers in the coming years in order to maintain a competitive edge. Translating research and ideas into products and businesses is a vital part of maintaining this advantage, as is training the next generation of business leaders with technical backgrounds who can drive job and wealth creation.

Graduates from the new EEM option will have an unparalleled toolkit from which they can launch their chosen career. Be it utilising creative project-based skills in the traditional corporate sector, or understanding the paths to

commercialisation from research and development, the students who have studied EEM will be uniquely placed within society to manage the challenges of the 21st century. We already know that this new EEM option will be very popular with the students and that there is more demand than there are available places.

The course will benefit from the depth and breadth of experience of the Department's community of alumni. Through individuals providing advice on syllabus content, delivering invited lectures, and presenting real-life challenges, the course will be dynamic and innovative in its approach.

Please do let me know if you would like to become involved or have any suggestions regarding this course.



The 42nd Maurice Lubbock memorial Lecture

25 May 2016

The lecture this year will be delivered by Lauri Hansen, Director of Engineering, NASA Johnson Space Centre, the first Lubbock lecture to be delivered by a female engineer (to my knowledge). The title of her lecture is 'Paving the Path for Human Space Exploration: The Challenges and Opportunities'. There are many challenges in designing spacecraft including safety, complex vehicle design, and mass challenges. Together, NASA and the European Space Agency (ESA) will provide the capability to take humans further than we have ever been before – 70,000 km past the moon. This will be the next big step in expanding the frontiers of human exploration, eventually leading to human footprints on Mars.

In addition to Lauri's lecture, we will be staging exhibitions on projects being undertaken by final-year undergraduates, and on hypersonics and cryogenics.



For further details and booking please visit:
<https://lubbock2016.eventbrite.co.uk/>

Lord Avebury, Eric Avebury (1924–2016)

Alumni will be saddened to learn of the recent death of distinguished Oxford Engineering alumnus Lord Avebury (Balliol, 1945). He was a very long-standing supporter of the Department of engineering Science. Although he became well known as a Parliamentarian, after winning a famous by-election victory at Orpington in 1962 as Eric Lubbock, and then making a long and dedicated contribution to British public life and the House of Lords in particular, he retained a great interest in Engineering. For 50 years he was chairman of the Lubbock Trust that provides financial support for Engineering and Management activities at Oxford University. For example, it sponsors



the Department's annual public lecture: the Maurice Lubbock Memorial Lecture (named in memory of his father, also an Oxford alumnus), held almost every year since 1964. He will be greatly missed.

Oxford Alumni Weekend

16–18 September 2016

As part of the University's Alumni Weekend, the Department will showcase a number of activities on Saturday 17 September (a date for your diary). These will include the Jenkin Lecture, which this year will be given by Constantin Coussios, Professor of Biomedical Engineering here at the Department, titled: 'Engineering tomorrow's therapies' and I will focus on the impact of digital technologies on healthcare. I will forward more details to you in the summer.



Alumni Weekend in
OXFORD

16–18 SEPTEMBER 2016

If you would like to keep up with activities in the Department, please visit the 'News' section of our website – www.eng.ox.ac.uk. We also hope you will visit the Oxford Engineering Alumni section of the website:

<http://www.eng.ox.ac.uk/alumni>

I hope to see many of you at either the Lubbock Lecture or the Jenkin Lecture.

My very best wishes,
Yours sincerely

L. Tarassenko

Lionel Tarassenko

Professor Lionel Tarassenko CBE FEng FMedSci,
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