

Engineering the beauty and efficiency of nature

Posted on Thursday 27th June 2013



Professor Duc Truong Pham FEng, Chance Professor of Engineering and Head of School of Mechanical Engineering at the University of Birmingham, unlocked nature's secrets at the Royal Academy of Engineering regional lecture at the **MTC (<http://www.the-mtc.org/>)**, Coventry, on 18 June.

In a talk titled Engineering Nature, Professor Pham demonstrated how engineers take inspiration from the natural world to solve problems and design new products. Among the topics for discussion were fractals and the foraging behaviour of social insects and how these can be used to organise and optimise engineering processes.

Professor Pham says: "Living machines and biological processes can be orders of magnitude more efficient than those we create. Across many different branches of engineering and technology, designs, products and methods are inspired by nature. By using ideas copied from life and the natural environment we can engineer beautiful and effective solutions to human problems."



Professor Richard Williams FEng, Pro-Vice-Chancellor and Head of College of Engineering and Physical Sciences at the University of Birmingham says: "Professor Pham's work is inspired by nature and in turn is an inspiration to us all. I am delighted that the Academy will be hosting this event with the University of Birmingham, enabling us to reach more Fellows in this part of the UK."

Professor Pham's talk was also his inaugural lecture for the University.

Notes to Editors

1. Professor Duc Truong Pham obtained his Bachelor of Engineering (Mechanical) degree with First-Class Honours, PhD degree and DEng degree from the University of Canterbury, New Zealand. Between 1979 and 1988, he held a lectureship in Control Engineering at the University of Birmingham where his research focused on robotics and automation. In 1988, he joined Cardiff University and in 1996, he founded the Manufacturing Engineering Centre at Cardiff University. His research encompassed the areas of intelligent systems and advanced manufacturing engineering and under his leadership, the Centre won numerous awards for its innovative manufacturing research and industrial collaboration. In 2011 Professor Pham returned to the University of Birmingham to take up the position of Head of the School of Mechanical Engineering and Chance Professor of Engineering. He is a Fellow of the Royal Academy of Engineering, Learned Society of Wales, Society of Manufacturing Engineers, Institution of Engineering and Technology, and Institution of Mechanical Engineers. He was made an OBE in the 2003 New Year's Honours List for his services to Engineering.

2. Founded in 1976, The Royal Academy of Engineering promotes the engineering and technological welfare of the country. Our fellowship – comprising the UK's most eminent engineers – provides the leadership and expertise for our activities, which focus on the relationships between engineering, technology, and the quality of life. As a national academy, we provide independent and impartial advice to Government; work to secure the next generation of engineers; and provide a voice for Britain's engineering community.

For more information please contact:

Manisha Laloo at The Royal Academy of Engineering

Tel. 020 7766 0683; email: [Manisha Laloo](mailto:Manisha.Laloo)

<http://www.raeng.org.uk/about/contact/contact.htm?a=manisha.laloo&d=default&s=>

[Privacy](#) | [Legal](#) | [Cookies and cookie policy](#) | [Accessibility](#) | [Site map](#) | [Website feedback](#) | [Charitable information](#)

© University of Birmingham 2015

