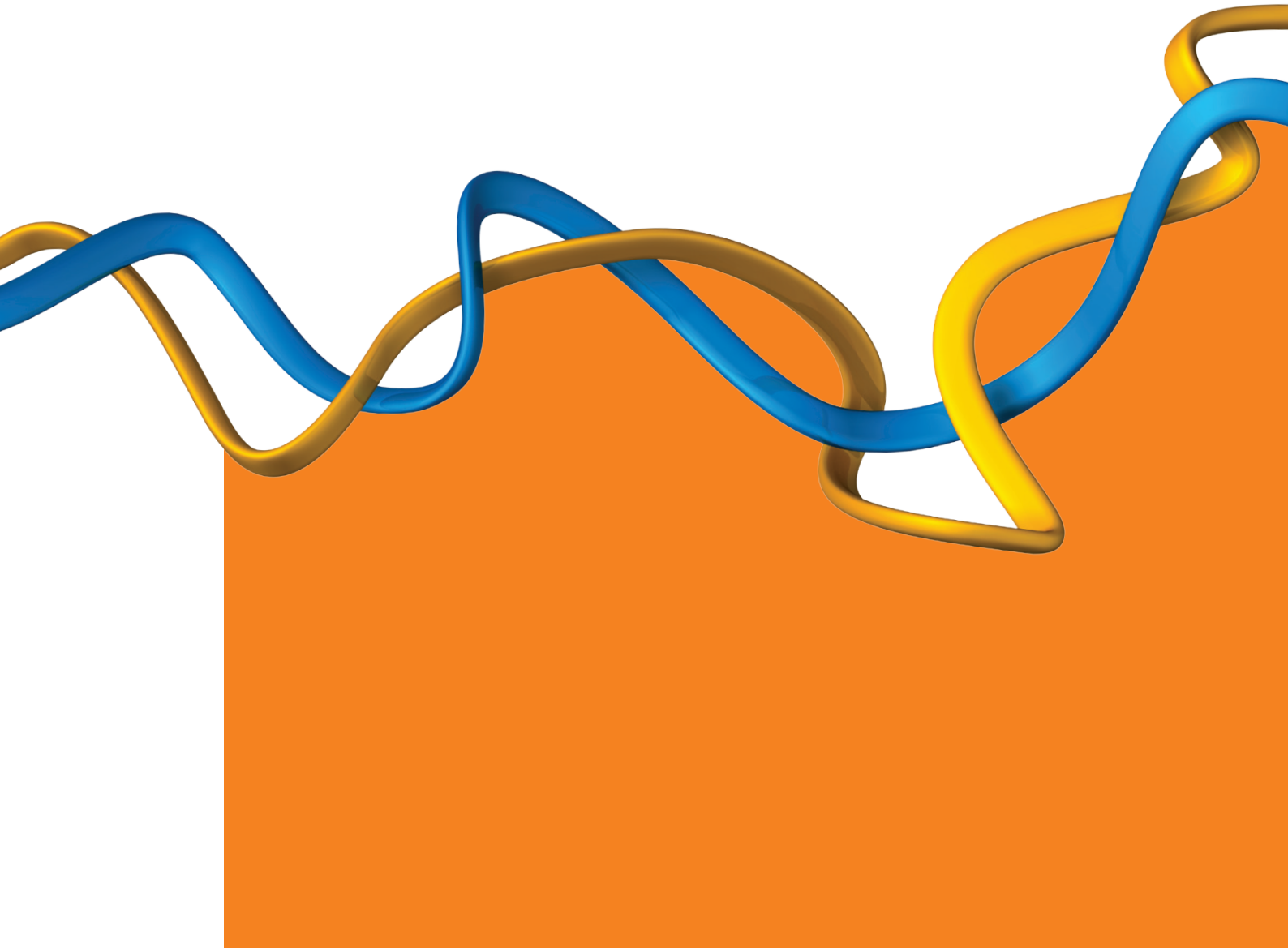


Annual **Review** Annex
2016/2017



Annex to the Annual Review

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Fellows

Fellows of the Academy are leading engineers in the UK drawn from academia, industry and the not-for-profit sectors. Fellowship is a national honour, awarded for outstanding personal engineering achievements. Election to the Fellowship is managed by current Fellows of the Academy.

INTERNATIONAL FELLOWS

Elected in 2016 were:

Professor Charbel Farhat
Vivian Church Hoff Professor of Aircraft Structures, and Chair, Department of Aeronautics and Astronautics, Stanford University

Dinesh Verma
IBM Fellow, IBM Thomas J Watson Research Center

HONORARY FELLOWS

Elected in 2016 were:

Thomas Heatherwick CBE
Founder, Heatherwick Studio

Professor Peter Jost CBE*
President, International Tribology Council and World Tribology Congress
*Elected before Professor Jost sadly passed away

FELLOWS

Elected in 2016 were:

Richard Barber
Group Head of Engineering, MMD

Alan Belfield
Group Board Director, Arup Group

Professor Andrew Bell
Chair in Electronic Materials, University of Leeds

Jane Butler
Vice-Dean (Enterprise), Faculty of Engineering, University College London

Gavin Campbell
Director (Quality, Airworthiness and Technology Strategy), Bombardier Aerospace

Andrew Carlick
Chief Executive Officer, DBD Group Holdings

Richard Clegg
Managing Director, Lloyd's Register Foundation

Graham Dalton
Chief Executive, Defence Infrastructure Organisation, Ministry of Defence

Professor Giles Davies
Professor of Electronic and Photonic Engineering and Pro-Dean for Research and Innovation, Faculty of Engineering, University of Leeds

Steven Dearden
President, Nuclear Submarines, Rolls-Royce plc

Chris Dulake
Major Projects Portfolio Director, Mott MacDonald

Professor Ahmed Elghazouli
Professor of Structural Engineering and Head of Structures Section, Imperial College London

Professor Mojtaba Ghadiri
Professor of Chemical Engineering, University of Leeds

Anthony Graham
Chairman, UK Naval Engineering, Science and Technology

Professor Sarah Hainsworth
Professor of Materials and Forensic Engineering, University of Leicester

Antony Harper
Head of Research and Technology, Jaguar Land Rover

Sir David Higgins
Non-Executive Chair, High Speed Two (HS2)

Professor Sri Hinduja
Professor of Manufacturing Technology, University of Manchester

Professor David Howard

Professor of Electronic Engineering and Founding Head of Department, Department of Electronic Engineering, Royal Holloway, University of London

Professor Ron Hui

Chair Professor of Power Electronics, The University of Hong Kong and Imperial College London

Professor David Hutchins

Professor of Engineering, University of Warwick

Professor William Jones

Professor of Combustion and Deputy Head of Thermofluids Division, Imperial College London

Robert Keiller

Chair, Scottish Enterprise

Simon Knight

Naval Engineering Director, Babcock International

Dr Barbara Lane

Fellow of Fire Engineering, Technology Group Leader, Arup; Visiting Professor, University of Edinburgh

Professor Gary Lye

Professor and Head of Department of Biochemical Engineering, University College London

Thomas McMichael

Former Engineering Director (Combat Air), BAE Systems Military Air and Information, BAE Systems

Dr Paul Miller

Secretary (voluntary), Douglas Bomford Trust; Director, Silsoe Spray Applications Unit Ltd

Professor Toby Mottram

Douglas Bomford Trust Professor of Farm Mechanisation, Royal Agricultural University

Alan Newby

Director Aerospace Technology and Future Programmes, Rolls-Royce plc

Professor Bucur-Mircea Novac

Professor of Pulsed Power, Loughborough University

Professor Paul O'Brien CBE

Professor of Inorganic Materials, University of Manchester

Professor Peter O'Hearn

Engineering Manager, Facebook; Professor of Computer Science, University College London

Roderick Rainey

Director, Rod Rainey and Associates Ltd

Professor Mark Rainforth

Professor of Materials Science, University of Sheffield

Dr Mark Raiss

Engineering Director, Civil Infrastructure, EMIA, AECOM

David Rugg

Engineering Senior Fellow, Rolls-Royce plc

Professor Mark Sandler

Professor of Signal Processing, Queen Mary University of London

Catriona Schmolke

Senior Vice President, Jacobs Engineering

Rakesh Sharma

Chief Executive, Ultra Electronics Holdings plc

Professor Ian Smith

Professor of Applied Thermodynamics and Director of the Centre for Positive Displacement Compressor Technology, City University London

Michael Tuke

Founder and Chairman, MatOrtho Ltd

Gavin Twidale

Chief Engineer, Land (UK), BAE Systems

Professor Robert Wood

Associate Dean of Research, and Director, National Centre for Advanced Tribology, University of Southampton

Professor Philip Woodland

Professor of Information Engineering, University of Cambridge

Sir Hossein Yassaie

Tech Entrepreneur and Investor

Air Marshal Julian Young CB OBE

Chief of Materiel (Air), Defence Equipment and Support, Ministry of Defence

Professor Zi-Qiang Zhu

Royal Academy of Engineering/ Siemens Research Chair and Head of the Electrical Machines and Drives Research, University of Sheffield

Trustee Board

The Trustee Board comprises 12 Trustees elected by and from the Fellowship and is chaired by the President, Professor Dame Ann Dowling.

OFFICERS AND MEMBERS OF COUNCIL

Chair

**Professor Dame Ann Dowling OM DBE
FREng FRS, President**

Vice Presidents

Allan Cook CBE FREng

Vice-President for Committee Coordination

**Professor Richard Williams OBE
FREng FRSE**

Vice-President for Fellowship Engagement

Members

Professor Colin Bailey FREng

Professor Sir Michael Gregory CBE FREng

Norman Haste OBE FREng

Dr David Hughes FREng

Dr Robert Joyce FREng

Professor Elaine Martin OBE FREng

John Robinson CBE FREng

Dr Frances Saunders CB FREng

Professor Liz Tanner OBE FREng FRSE

Paul Westbury CBE FREng

Academy Governance Committees

AUDIT AND RISK COMMITTEE

The purpose of the Audit and Risk Committee is to assess and improve risk management and internal processes and controls across the Academy and oversee the external audit on behalf of the Trustee Board.

Chair

John Robinson CBE FREng

Members

Professor Iain Gray CBE FREng FRSE

Professor Sir Michael Gregory CBE FREng

Dr Carolyn Griffiths FREng

Professor Jim Norton FREng

Dr Michael Purshouse FREng

Richard Sadler FREng

FINANCE COMMITTEE

The Finance Committee is responsible for and accountable to the Trustee Board for the financial management of the Academy including compliance with the Charities Act 2011 and other relevant legislation, management of Academy budgets, external investment fund managers and compliance with external financial reporting standards.

Chair

Dr Robert Joyce FREng

Members

Norman Haste OBE FREng

Graeme Hobbs FREng

Professor David Lane CBE FREng

FRSE

Professor Jim Norton FREng

MEMBERSHIP COMMITTEE

The Membership Committee is the guardian of excellence in determining which candidates may go forward for election to the Fellowship. The Membership Committee consists of a Chair, Chairs of each of the Membership Selection Panels, the Chair of the International Committee and an ex-officio. Each of the 11 Membership Selection Panels looks after a sector of engineering.

Chair

Dr Frances Saunders CB FREng

Ex officio

The President

Panel Chairs

Panel 1 (Civil and Environmental)

Professor Colin Bailey FREng

Panel 2 (Materials and Mining)

Professor Eileen Harkin-Jones OBE FREng

Panel 3 (Chemicals and Process)

Dr David Tomlinson FREng

Panel 4 (Aerospace)

Sir Simon Bollom KBE CB FREng

Panel 5 (Transport and Mechanical)

Professor Stephen Garwood FREng

Panel 6 (Manufacturing and Design)

Professor Roger Benson FREng

Panel 7 (Electrical and Electronic)

Professor Bashir Al-Hashimi FREng

Panel 8 (Energy and Power)

Dr Martin Grant FREng

Panel 9 (Medical and Bioengineering)

Dr Donal Cronin FREng

Panel 10 (Computing and

Communications)

Professor Alan Bundy CBE FREng

FRS FRSE

Panel 11 (Special)

Professor Gordon Masterton OBE

FREng FRSE

Panel Members

Panel 1 (Civil and Environmental)

Professor Muhammed Basheer FREng
Professor David Butler FREng
Timothy Chapman FREng
Dr Steve Denton FREng
Professor Peter Hansford FREng
Steven Harridge FREng
Chris Hendy FREng
Doug King FREng
David MacKenzie FREng
Michelle McDowell MBE FREng
Professor Karen Scrivener FREng
Dr Toby Roberts FREng

Panel 2 (Materials and Mining)

Professor Stephen Bull FREng
Professor Paul Curtis FREng
Dr John Groom FREng
Professor Christopher Hall FREng
FRSE
Professor Anthony Kinloch FREng
FRS
Professor David Owen FREng FRS
Professor Mary Ryan FREng
Jeffrey Smith FREng
Dr Alan Turnbull OBE FREng FRS
Dr Paul Woollin FREng

Panel 3 (Chemicals and Process)

Professor Adisa Azapagic FREng
Professor Zhanfeng Cui FREng
Professor Michael Hounslow FREng
Professor Andrew Livingston FREng
Professor Raffaella Ocone FREng
FRSE
Nigel Perry MBE FREng
Professor Robin Smith FREng
Paul Sinclair FREng
Phillip Tracy FREng

Panel 4 (Aerospace)

Sir Richard Brook OBE FREng
Professor Esteban Busso FREng
Dr Roger Digby FREng
Dr Richard Greaves FREng
Graham Hopkins FREng
Professor Andrew Keane FREng
Professor Tony Kinghorn FREng
Professor Constantinos Soutis FREng
Professor Michael Wisnom FREng

Panel 5 (Transport and Mechanical)

Professor David Cebon FREng
Professor Andrew Doherty FREng
Dr Simon Gallimore FREng
Professor Colin Garner FREng
Professor Karen Holford FREng
Dr Michael Purshouse FREng
Professor Paul Shayler FREng
Professor Raymond Snidle FREng
Dr Willem van Griethuysen FREng

Panel 6 (Manufacturing and Design)

Professor Peter Clarkson FREng
Richard Goodwin FREng
Dr Clive Hickman FREng
Professor Jane Jiang FREng
Professor Patrick Keogh FREng
Professor Lin Li FREng

Panel 7 (Electrical and Electronic)

Professor Clifford Burrows OBE
FREng
Professor David Cardwell FREng
Professor Roger Goodall FREng
Professor Andrew Marvin FREng
Professor Barrie Mecrow FREng
Professor Mohamed Missous FREng
Professor Sir Michael Pepper FREng
FRS
Professor Harvey Rutt FREng
Dr Andrew Shields FREng
Dr Nicholas Waltham FREng
Dr Richard Wylde FREng

Panel 8 (Energy and Power)

Professor Nigel Brandon OBE FREng
Janice Crawford FREng
Ed Daniels FREng
David Eyton FREng
Dr Rick Jefferys FREng
Dr Malcolm Kennedy CBE FREng
FRSE
Dr Marcus Newborough FREng
Dr Win Rampen FREng FRSE
Professor Albert Rodger FREng FRSE
Nicholas Winser CBE FREng

Panel 9 (Medical and Bioengineering)

Dr Douglas Anderson OBE FREng
FRSE
Professor Serena Best FREng
Professor Nicholas Medcalf FREng
Professor Mark Tooley FREng
Professor Guang-Zhong Yang CBE
FREng

Panel 10 (Computing and
Communications)

Professor Robin Bloomfield FREng
Professor Sheng Chen FREng
Professor Anthony Cohn FREng
Dr Andrew Fitzgibbon FREng
Professor Carole Goble CBE FREng
Professor Stephen Roberts FREng
Professor Daniel Rueckert FREng
Professor Angela Sasse FREng
Professor Jim Woodcock FREng

Panel 11 (Special)

Dr Alan Begg FREng
Professor Graham Davies FREng
Commodore Peter Hurford OBE
FREng
Jonathan Lyle FREng
Professor Ian Wallace FREng

NOMINATIONS COMMITTEE

The purpose of the Nominations Committee is to ensure that a sufficient number of Fellows stand as candidates in the annual Trustee election and that the candidates bring to the Trustee Board skills, knowledge, experience and diversity that would yield, among the ordinary members and vice presidents, a balanced Board. The Committee will recommend to the Board candidates for appointment as vice presidents and candidates for appointment as chairs of the Academy's operating committees. The Committee is also to recommend to the Trustees, and ultimately the Fellowship, the Academy's President from nominations submitted by the Fellowship.

Chair

**Professor Dame Ann Dowling OM
DBE FREng FRS**

Members

**John Baxter CBE FREng FRSE
Professor Dame Wendy Hall DBE
FREng FRS
Dervilla Mitchell CBE FREng
Professor Sir Christopher Snowden
FREng FRS
Paul Westbury CBE FREng
Professor Richard Williams OBE
FREng FRSE**

REMUNERATION COMMITTEE

The purpose of the Remuneration Committee is to establish and keep under review the remuneration policy for permanent Academy staff, which will be implemented by the Chief Executive; to consider the recommendation of the Chief Executive for remuneration of the Academy Directors and agree their remuneration; and to set the remuneration of the Chief Executive.

Chair

**Professor Dame Ann Dowling OM
DBE FREng FRS**

Members

**Allan Cook CBE FREng
Professor Sir Michael Gregory CBE
FREng
Dr Robert Joyce FREng**

Academy Operating Committees

AWARDS COMMITTEE

The role of the Awards Committee is to identify and recommend to the President and Trustee Board appropriate candidates for all of the Academy's relevant prizes and awards (with the exception of National Honours, the International Medal, the Queen Elizabeth Prize for Engineering and the MacRobert Award).

Chair

Nigel Perry MBE FREng

Members

Dr Steve Allpress FREng

Professor Adisa Azapagic FREng

**Professor Alistair Borthwick FREng
FRSE**

Professor Anthony Bull FREng

Jane Butler FREng

Professor Trish Connolly FREng FRSE

Chris Hendy FREng

Professor Malcolm Macleod FREng

Dr Jim Ramage FREng

John Tubman FREng

Professor John Watts FREng

DIVERSITY AND INCLUSION COMMITTEE

The Diversity and Inclusion Committee's role is to advise and have oversight of all the Diversity and Inclusion Programme strands of work, including with employers, professional engineering institutions and within the Academy itself.

Chair

Dervilla Mitchell CBE FREng

Members (Fellows)

Allan Cook CBE FREng D.Sc.

**Professor Anthony Finkelstein CBE
FREng**

Professor Pratibha Gai FREng FRS

Jonathan Lyle FREng

Professor Angela Sasse FREng

Professor Nilay Shah FREng

David Waboso CBE FREng

Members (Non-Fellows)

Elsbeth Finch

Committee Secretariats

Bola Fatimilehin

Jenny Young

EDUCATION AND SKILLS COMMITTEE

The Education and Skills Committee's role is to oversee and be responsible for the Academy's activities in engineering education and training, and to maintain links with other bodies working in these fields. It also provides oversight of the diversity work of the Academy, both internally and with external stakeholders and partners.

Chair

Professor Helen Atkinson CBE FREng

Members

Professor Claire Adjiman FREng

Chris Allam FREng

Professor Graham Davies FREng

**Professor Eileen Harkin-Jones OBE
FREng**

Dr Paul Holbourn FREng

Professor Ian Hutchings FREng

Bernard Looney FREng

Howard Mathers CBE FREng

Colin Matthews CBE FREng

Professor Tony Ridley CBE FREng

Professor Nick Tyler CBE FREng

Dr Jean Venables CBE FREng

Ex officio

Chris Earnshaw OBE FREng

Professor Peter Goodhew CBE FREng

Dr Stephen Huntington OBE FREng

**Professor Andrew McNaughton
FREng**

ENGINEERING POLICY COMMITTEE

The Engineering Policy Committee's role is to advise and be responsible to the Trustee Board for the engineering policy of the Academy and for all matters concerned with the application of engineering knowledge and principles (other than education and training). It should identify, monitor and promote attention to emerging and generic issues of importance to engineering in pursuit of this role.

Chair

Professor John Loughhead OBE FREng

Members

Gavin Campbell FREng
Tim Chapman FREng
Professor John Clarkson FREng
Dr Steve Denton FREng
Professor Paul Howarth FREng
Professor Nick Jennings CB FREng
Dr Mike Lloyd FREng
Professor Jim Norton FREng
Catrina Schmolke FREng
Paul Taylor FREng
Professor Mark Tooley FREng
Steve Yianni FREng

Ex officio

Professor Serena Best FREng

ENTERPRISE COMMITTEE

The role of the Enterprise Committee is to provide strategic oversight and leadership of the Academy's Enterprise Hub, on behalf of the Trustee Board. The Committee oversees the development and operation of the Enterprise Hub, and supports and promotes its activities, which includes developing appropriate partnerships and funding relationships. It ensures the quality and rigour of the assessment process and selection of awards for the Academy's UK-based enterprise schemes.

Chair

Ian Shott CBE FREng

Deputy Chairs

Professor Norman Apsley OBE FREng
Dr Robert Sansom FREng

Members

Professor Steven Beaumont OBE FREng FRSE
Professor Richard Brook OBE FREng
Mike Carr OBE FREng
Suranga Chandratillake FREng
Anne Glover CBE HonFREng
Sir David Grant CBE FREng
Professor Iain Gray CBE FREng FRSE
Dr Andrew Harter CBE FREng
Dr Hermann Hauser KBE FREng FRS
Professor Andrew Hopper CBE FREng FRS
John Leggate CBE FREng
Dr Michael Lynch OBE DL FREng FRS
Chris Mairs CBE FREng
Professor Alison Noble OBE FREng FRS
Sir Alan Rudge CBE FREng FRS
Dr John C Taylor OBE FREng
Dr Richard Whittington FREng

Committee secretariat

Ana Avaliani

EXTERNAL AFFAIRS COMMITTEE

The role of the External Affairs Committee is to provide strategic direction for external affairs activities on behalf of the Trustee Board. It oversees all aspects of the Academy's communications, public affairs and engagement activities and events programme, ensuring that they are delivered in line with the strategic plan.

Chair

Dame Judith Hackitt DBE FREng

Members (Fellows)

Professor Anthony Cohn FREng
Janice Crawford FREng
Professor Robin Grimes FREng
Professor Geoffrey Maitland FREng
Richard Maudslay CBE FREng
Michelle McDowell MBE FREng
Professor Saeed Zahedi OBE FREng

Ex officio

Professor Mark Miodownik FREng
(Chair of *Ingenious* selection panel)
Dr Scott Steedman CBE FREng
(Chair of *Ingenia*)

Members (Non-Fellows)

Clive Cookson
John Gardner
Dr Roger Highfield
Kelly Oakes

Committee secretariat

Juniour Blake

INTERNATIONAL COMMITTEE

The role of the International Committee is to advise and be responsible to the Trustee Board for promoting the international interests of the Academy. In pursuit of this role, the Committee's interests include the Academy's membership of the International Council of Academies of Engineering and Technological Sciences (CAETS) and the European Council of Applied Sciences and Engineering (Euro-CASE).

The Committee contributes to other international committees and study groups as appropriate and works to expand relationships with other academies of engineering and technological sciences, taking part in their activities where this is consistent with the Academy's objectives.

The Committee oversees the Academy's Newton Fund activities.

Chair

David Thomlinson FEng

Members

Professor David Bogle FEng
Malcolm Brinded CBE FEng
Dr Andrew Chan FEng
Professor Muffy Calder OBE FEng FRSE
David Eyton FEng
Dr Alastair Glass FEng
Professor Sir Michael Gregory CBE FEng
Dr John Lazar CBE FEng
Professor William Lee FEng
Dr Timothy Leverton FEng
Professor John Loughhead OBE FEng
Professor Ric Parker CBE FEng
Professor John Perkins CBE FEng
Dr Gareth Williams FEng
Professor Florin Udrea FEng
Professor Hai-Sui Yu FEng

Committee secretariat

Shane McHugh

RESEARCH COMMITTEE

The role of the Research Committee is to advise and be responsible to the Trustee Board for the supervision of research and secondment schemes other than those concerned with education and training.

Chair

Professor Sir James McDonald FEng FRSE

Members

Professor Bashir Al-Hashimi FEng
Dr Alan Begg FEng
Professor Peter Cawley FEng FRS
David Eyton FEng
Professor Karen Holford FEng FLSW
Professor Michael Hounslow FEng
Professor John McDermid OBE FEng
Professor Stephen McLaughlin FEng FRSE
Professor Lionel Tarassenko CBE FEng FMedSci
Professor Hywel Thomas CBE FEng FRS FLSW
Dr David Watson CBE FEng

Member (Non-Fellow)

Professor Maire O'Neill

Ex officio

Professor Neil Alford MBE FEng
(Research Fellowships)

Professor Elaine Martin OBE FEng
(Industrial Fellowships)

Professor William Milne FEng
(Leverhulme Trust, Senior Research Fellowships)

Professor Stephen Williamson FEng
(Research Chairs, Senior Research Fellowships)

Committee secretariat

Christina Guindy

Awards

2016 MacRobert Award

The premier award for innovation in UK engineering, with a £50,000 prize, awarded annually to a team of engineers for an exceptional engineering innovation that has been both commercially successful and delivers benefits to society. The MacRobert Award is supported by the Worshipful Company of Engineers.

Awarded to:

Blatchford for its Linx limb system, the world's most intelligent prosthetic limb

2016 RAEng Engineers Trust Young Engineers of the Year and Sir George Macfarlane Medal

These awards are supported by the Worshipful Company of Engineers and recognise the potential of engineers working in the UK who have demonstrated excellence in the early stage of their career. The overall winner receives the Sir George Macfarlane Medal.

Awarded to:

Dr Sithamparanathan Sabesan, Chief Executive Officer, PervasID

Winner of the Sir George Macfarlane Medal

Dr T Ben Britton, lecturer, Department of Materials, Imperial College London

John Collins, senior engineer, Arup

Orla Murphy, acoustic engineer, Jaguar Land Rover

Dr Paul Shearing, senior lecturer in chemical engineering, University College London

2016 Silver Medals

For an outstanding personal contribution to UK engineering by an early- to mid-career engineer resulting in market exploitation. Up to four medals may be awarded in any one year.

Awarded to:

Dr Damian Gardiner, Research Scientist/Business Development Manager, Johnson Matthey

Dr Demis Hassabis, Co-Founder and CEO, Google Deepmind and Vice-President Engineering, Google

Professor Tong Sun, Professor of Sensor Engineering, City University London

2016 President's Medal

Awarded to an Academy Fellow who has contributed significantly to the Academy's aims and work through initiative in promoting excellence in engineering.

Awarded to:

Dr Ian Nussey OBE FREng

2016 Sir Frank Whittle Medal

Awarded to an engineer resident in the UK whose achievements have had a profound impact upon their engineering discipline.

Awarded to:

Professor Roger Sargent FREng, Emeritus Professor of Chemical Engineering and Senior Research Fellow, Imperial College London

2016 Prince Philip Medal

Awarded biennially to an engineer of any nationality who has made an exceptional contribution to engineering.

Awarded to:

Dr Jonathan Ingram, CSO and Founder, Silent Sensors Ltd

2016 Major Project Award

The award recognises the contribution of a team of up to five UK-based engineers who have delivered a major engineering project that has had a substantial impact on society.

Awarded to:

Intermediate Frequency Modem System, BAE Systems AI Labs:

Nick James

Matthew Gore

Mark Westcott

2016 Rooke Award

The prize is awarded to an individual, small team or project, based in the UK, that has supported the Academy's aims and work through their initiative in promoting engineering to the public.

Awarded to:

Professor Danielle George MBE, Professor of Radio Frequency Engineering, University of Manchester

2016 Colin Campbell Mitchell Award

For an engineer or small team of engineers who have made an outstanding contribution to the advancement of any field of UK engineering.

Awarded to:

Ultrahaptics:

Professor Sriram Subramanian

Dr Ben Long

Tom Carter

Grants, fellowships and programmes

RESEARCH CHAIRS

The Research Chairs programme provides funding, together with industry and other research organisations, to support strategically important research in UK universities. The Academy provides funding for an initial period of five years.

Name	Co-sponsor	Project title	University
Professor Guglielmo Aglietti	Surrey Satellite Technology	Space engineering	University of Surrey
Professor Robert Akid	BP	Corrosion and materials	University of Manchester
Professor John Andrews	Network Rail	Infrastructure asset management	University of Nottingham
Professor Matthew Angling	Defence Science and Technology Laboratory	Space environment and radio frequency engineering	University of Birmingham
Professor Ashraf Ayoub	Pell Frischmann	Nuclear infrastructure engineering	City, University of London
Professor Luke Bisby	Arup	Fire and structures	University of Edinburgh
Professor Robert Bowman	Seagate Technology	Advanced materials for data storage	Queen's University Belfast
Professor Christoph Breucker	BAE Systems	Aeronautical engineering	City, University of London
Professor Richard Butler	GKN	Composites analysis	University of Bath
Professor Jon Carrotte	Rolls-Royce	Aerothermal technology	Loughborough University
Professor George Constantinides	Imagination Technologies	Digital computation	Imperial College London
Professor Jonathan Cooper	Airbus	Aeronautical engineering	University of Bristol
Professor Andrew Davison	Dyson Technology Ltd	Efficient vision for robotics	Imperial College London
Professor Yulong Ding	Highview Power Storage	Cryogenic energy storage	University of Birmingham
Professor Hongbiao Dong	TWI Ltd	Innovative metal processing	University of Leicester
Professor Fionn Dunne FEng	Rolls-Royce	Integrative mechanistic design	Imperial College London
Professor Daniel Esser	SELEX ES	Laser device physics and engineering	Heriot-Watt University
Professor Brian Falzon	Bombardier	Aerospace composites	Queen's University Belfast
Professor Chris Gerada	Cummins Generator Technologies	Electrical machines	University of Nottingham
Professor Alistair Gibb	ECI	Complex project management	Loughborough University
Professor Kenneth Grattan FEng	George Daniels' Educational Trust	Next generation optical and fibre-optic instrumentation	City, University of London
Professor Hugh Griffiths FEng	Thales UK	Radio frequency sensor systems	University College London
Professor Matthew Hall	British Geological Survey	Carbon capture, storage and alternative hydrocarbons	University of Nottingham
Professor Eileen Harkin-Jones FEng	Bombardier	Composites engineering	Ulster University
Professor Ian Hunter FEng	Radio Design Limited	Microwave signal processing	University of Leeds
Professor Lorenzo Iannucci	Defence Science and Technology Laboratory	Multiscale composite armour design	Imperial College London
Professor Xiangqian (Jane) Jiang DBE FEng	Renishaw	Precision metrology	University of Huddersfield

Name	Co-sponsor	Project title	University
Professor Nikil Kapur	GlaxoSmithKline	Pharmaceutical processing	University of Leeds
Professor Alan Kemp	Fraunhofer UK	Advanced laser engineering	University of Strathclyde
Professor Jianguo Lin FREng	TATA Steel	Multidisciplinary studies of hot stamping	Imperial College London
Professor Omar Matar	Petronas	Multiphase fluid dynamics	Imperial College London
Professor Bruno Merk	National Nuclear Laboratory	Computational modelling for nuclear engineering	University of Liverpool
Professor John Miles FREng	Arup	Energy transitions	University of Cambridge
Professor James Moore	Bagrit Trust	Medical device design	Imperial College London
Professor Stephen Muggleton FREng	Syngenta	Applications of automated theory formation using meta-interpretive machine learning	Imperial College London
Professor Andrew Neely	IBM/BAE Systems	Complex engineering systems	University of Cambridge
Professor Kamran Nikbin	EDF Energy - Existing Nuclear	Structural integrity assessment	Imperial College London
Professor Chris Pearce	EDF Energy	Computational mechanics for nuclear power engineering	University of Glasgow
Professor Stephen Roberts FREng	MAN Group Plc	Machine learning at industrial and commercial scale	University of Oxford
Professor Mary Ryan FREng	Shell	Interfacial nanoscience for engineering materials	Imperial College London
Professor Vladimiro Sassone	Roke	Cyber security	University of Southampton
Professor Sven Schroeder	Infineum UK / Diamond Light Source	Engineering applications of synchrotron science	University of Leeds
Professor Thomas Scott	AWE	Performance and detection of actinide materials	University of Bristol
Professor Sridhar Seetharaman	TATA Steel	Low-carbon materials technologies	University of Warwick
Professor Spencer Sherwin	McLaren Racing Next Generation	Transient flow simulation for advanced race and road cars design	Imperial College London
Professor Iain Todd	GKN Aerospace	Additive manufacture and advanced structural metallics	University of Sheffield
Professor Andrew Tyas	Defence Science and Technology Laboratory	Protection engineering against high explosive blast	University of Sheffield
Professor Phillip Webb	Airbus	Aero-structures design	Cranfield University
Professor Jennifer Whyte	Laing O'Rourke	Systems integration	Imperial College London
Professor Michalis Zervas	SPI Lasers	Advanced fibre laser technologies for future manufacturing	University of Southampton
Professor Zi-Qiang Zhu FREng	Siemens Wind Energy	High efficiency and power density windpower generator systems	University of Sheffield

RESEARCH CHAIRS IN EMERGING TECHNOLOGIES

This programme allows recipients to develop an area of early-stage research into a new technology to the extent that it engages the wider research community and can subsequently be taken forward by industry. The Academy provides funding for 10 years.

Name	Project title	University
Professor Anne Neville FREng	Bio inspiration for functional surface design	University of Leeds
Professor Jeremy O'Brien	Photonic quantum ICT	University of Bristol

SENIOR RESEARCH FELLOWSHIPS

This scheme provides funding for senior lecturer/reader-level appointments. Fellowships are funded jointly with industry to support strategically important research in UK universities. The Academy provides funding for an initial period of five years.

Name	Co-sponsor	Project title	University
Professor Brian Connolly	EDF Energy	Corrosion performance of energy systems	University of Manchester
Dr Stephen Neethling	Rio Tinto	Heap advanced leaching	Imperial College London
Dr Graham Spinardi	Ove Arup Foundation	Integrating technical and social aspects of fire safety expertise and engineering	University of Edinburgh
Dr Sophie Williams	DePuy Synthes	Hip replacement technology	University of Leeds
Dr Xibo Yuan	Safran Electrical & Power UK	Advanced aircraft power generation systems	University of Bristol

LEVERHULME TRUST SENIOR RESEARCH FELLOWSHIPS

These Fellowships provide mid-career engineers working in UK academic institutions with the opportunity to focus on research activities for a period of up to 12 months while their academic and administrative responsibilities are taken over by an early-career academic.

Name	Project title	University
Dr James Covington	How does the future smell?	University of Warwick
Dr Kevin Curran	Device-free location-oriented activity identification in the home	Ulster University
Dr Piotr Dudek	Analog computation with novel nanodevices for machine learning	University of Manchester
Dr Raul Fuentes	Developing infrastructure robotics - a low-cost small robot for infrastructure inspection	University of Leeds
Dr Stephen Garrett	Understanding transition in boundary-layer flows over rotating geometries	University of Leicester
Dr Christopher Keylock	Characterising the complexity of environmental, turbulent flows	University of Sheffield
Dr Denis Kramer	Glass-fibre solar redox receiver for grid-scale electricity provision	University of Southampton
Dr Chenfeng Li	Real-time computational methods for complex high-fidelity surgical simulation	Swansea University
Dr Cyril Lynsdale	Recycling of carbon dioxide in mortar and concrete	University of Sheffield
Dr Rachel Oliver	Understanding and utilising nitride nanostructures	University of Cambridge
Dr Jonathan Pearson	Coastal flood risks under extreme events: creating resilience through retrofitting	University of Warwick
Dr Justin Philips	A non-invasive continuous monitor of intracranial pressure	City, University of London
Dr Aleksandra Vuckovic	Home-based patient-managed neurorehabilitation following spinal cord injury	University of Glasgow
Dr Fang Xie	Nanoscale engineering of photoelectrodes for whole spectrum light harvesting	Imperial College London

DAPHNE JACKSON TRUST FELLOWSHIPS

These Fellowships enable engineers to return to work following a career break.

Name	Project title	University
Dr Maria Ribera Vicent	Satellite FEM validation with advanced optimisation and virtual vibration testing	University of Surrey

RESEARCH FELLOWSHIPS

These Fellowships are awarded to outstanding researchers from all branches of engineering who are about to finish their PhDs or have up to four years' postdoctoral experience.

Name	Project title	University
Dr Mark Ainslie	Engineering interactions of magnetic and superconducting materials for electrical applications	University of Cambridge
Dr David Armstrong	Micro-engineering advanced alloys for extreme nuclear power environment	University of Oxford
Dr Maris Azarpeyvand	Source and propagation modelling for wind turbine and turbomachinery noise	University of Bristol
Dr Ralf Bauer	Miniaturised 3D-printed biomedical imaging system using optical MEMS	University of Strathclyde
Dr Emmanouil Benetos	Software inspired by the human ear/looking at the human ear to design novel listening software	Queen Mary, University of London
Dr Martynas Beresna	Ultrafast laser-induced nanostructuring: a pathway to advanced optical-fibre engineering	University of Southampton
Dr Ben Britton	Better understanding of materials to make safer reactors	Imperial College London
Dr Peter Carrington	High efficiency mid-infrared semiconductor materials and devices grown on silicon	Lancaster University
Dr Alasdair Clark	Plasmon enhanced pyroelectrodynamics nanoscale trapping and sensing	University of Glasgow
Dr David Clifton	Machine learning for the intelligent patient record	University of Oxford
Dr Alexander Dickinson	Developing the next generation of prosthetic limbs	University of Southampton
Dr Trung Duong	Meeting future wireless capacity via secure and energy-efficient small-cell networks	Queen's University Belfast
Dr Marco Endrizzi	Laboratory-based x-ray dark-field microscopy and microtomography	University College London
Dr Christian Fensch	Auto-tuned programming patterns and the programmability gap	Heriot-Watt University
Dr Amanda Joy Foust	Holographic light shaping for reverse engineering neural circuit learning	Imperial College London
Dr Enrique Galindo-Nava	Developing novel materials for gas turbine engines: an integrated computational and modelling approach	University of Cambridge
Dr Peter Gammon	Novel interlayer cooling for harsh environment (NICHE) devices and circuitry	University of Warwick
Dr Sabina Hatch	High-efficiency, low-cost solar cells using III-V nanowires on flexible substrates	University College London
Dr Tawfique Hasan	Graphflex: fully flexible graphene-based transparent conductors	University of Cambridge
Dr Gregory Jasion	Hollow microstructured optical fibres for high power laser delivery	University of Southampton
Dr Edmund Kelleher	Next-generation short-pulse lasers for the visible and ultraviolet	Imperial College London
Dr Maiwenn Kersaudy-Kerhoas	Towards better pregnancy monitoring: miniaturised tools for non-invasive prenatal diagnosis in clinics and hospitals	Heriot-Watt University

Name	Project title	University
Dr Edward Laird	Quantum computing devices based on carbon nanomaterials	University of Oxford
Dr Domanic Lavery	Simplified transceiver architectures for high capacity optical networks	University College London
Dr Martin Lavery	Increasing data transfer capacity using light's unusual properties	University of Glasgow
Dr Hugh Leather	Optimising the mobile net	University of Edinburgh
Dr Grigorios Loukides	Privacy protection in event-based data sharing and analysis	Cardiff University
Dr Fleur Loveridge	New thermal and geotechnical facility for ground heat exchangers	University of Southampton
Dr Mathieu Lucquiaud	Future-proofing fossil power stations with CO ₂ capture	University of Edinburgh
Dr Luca Magri	Adjoint-based approaches in thermo-acoustics: understanding, modelling and controlling instabilities	University of Cambridge
Dr Christos Masouros	Interference as a source of green signal energy in wireless communications	University College London
Dr Matthias Mauch	Software systems for computer-aided music understanding	Queen Mary, University of London
Dr Ruth Misener	Towards rational chemotherapy strategies: a hybrid computational/experimental approach	Imperial College London
Dr Mehran Moazen	Predicting skull growth in craniosynostosis for improved surgical treatment	University College London
Dr Jan Mol	Single-molecule electronics	University of Oxford
Dr Ana Namburete	Ultrasound-based atlas for longitudinal analysis of fetal brain maturation	University of Oxford
Dr Thomas Okell	Novel imaging techniques to visualise blood flow in the brain	University of Oxford
Dr Pola Goldberg Oppenheimer	Advanced micro-optofluidic portable sensing (AMPS) technology for timely point-of-care diagnostics	University of Birmingham
Dr Francesca Parmigiani	Optical processing of high-spectral efficiency phase-encoded signals for future generation optical networks	University of Southampton
Dr Oliver Payton	Mapping, measuring and manufacturing nanostructures via high-speed atomic force microscopy	University of Bristol
Dr Alberto Peruzzo	Quantum processors for quantum chemical engineering	University of Bristol
Dr David Phillips	Sensing and actuation of nanoscale mechanics in biological systems	University of Glasgow
Dr Soraia Pimenta	Exploiting novel carbon-fibre composites	Imperial College London
Dr Antoniu Pop	Developing a language for the computers of the future	University of Manchester
Dr Samuel Powell	Engineering a new approach to biomedical imaging using sound and light	University College London
Dr Ludovic Renson	Developing next generation testing methods for nonlinear mechanical structures	University of Bristol
Dr Robert Richards	Development of indium gallium arsenide bismide for mid-wavelength infrared applications	University of Sheffield
Dr Paul Shearing	Four-dimensional tomography of electrochemical devices	University College London
Dr Radu Sporea	Novel high performance transistors for use in large area electronics	University of Surrey

Name	Project title	University
Dr Nikos Tzevelekos	Game semantics for program analysis	Queen Mary, University of London
Dr Thomas Vetter	Understanding impurity incorporation into organic crystals from measurements and simulations	University of Manchester
Dr Freddie Withers	Light harvesting hybrid – graphene-based devices (GrapheX)	University of Manchester
Dr Amanda Wright	New horizons in adaptive optics for life science research: adaptive microscopy	University of Nottingham
Dr Weijia Yuan	Advancing renewable energy integration by innovative SMES-battery storage systems	University of Bath
Dr Min Zhang	Fully superconducting machines for next generation electric aircraft propulsion	University of Bath

GCRF FRONTIERS OF ENGINEERING FOR DEVELOPMENT SEED FUNDING

This scheme, a Global Challenges Research Fund programme, is for attendees of the Frontiers of Engineering for Development symposia, which bring together early- to mid-career engineers to network, engage and collaborate to tackle global grand challenges. It supports interdisciplinary projects inspired by the events.

Tranche 1

Names	Project title	Institutions
Dr Ioannis Papakonstantinou Dr Anh Tran Dr Maria-Chiara Ferrari	Low-energy drinking water filtration system with nanopore membranes	University College London Coventry University University of Edinburgh
Dr Martin Lavery Dr Ralf Bauer	Enhanced heliostat-based energy generation for deployment across the developing world	University of Glasgow University of Strathclyde
Mr Boris Ochoa Tocachi Mr Dustin Caniglia Dr Wouter Buyaert Dr Adrian Butler	Monitoring and mapping of water availability in East Africa enabled by low-cost sensor technologies	Imperial College London Concern Worldwide, Somalia Imperial College London Imperial College London
Dr Fleur Loveridge Ms Vera Bukachi Dr Mark Trigg	Resilience of linear infrastructure in East Africa	University of Leeds University College London University of Leeds
Dr Philipp Rudolf Thies Ms Morwesi Ramonyai Ms Mbali Mabaso	Socio-technical assessment of risk in community energy projects – STAR	University of Exeter BORNEA Energy Stellenbosch University
Dr Tingting Zhu Dr Kristine Magtubo Mr Mathaniel D. Cruz Professor David Clifton Professor Portia Grace F. Marcelo	Machine learning for improved decision-making with telemedicine	University of Oxford University of the Philippines University of the Philippines University of Oxford University of the Philippines

Names	Project title	Institutions
Dr Muyiwa Oyinlola Dr Boksun Kim Dr Yewande Akinola Dr Fatai Anafi Dr Amal Abuzeinab Dr Farukh Farukh Dr Karthikeyan Kandan Dr Timothy Whitehead	Developing local capacity for building affordable, self-sufficient homes	De Montfort University Plymouth University Laing O'Rourke Ahmadu Bello University, Nigeria De Montfort University De Montfort University De Montfort University De Montfort University
Dr Marcelle McManus Dr Thomas Rogers Dr Fleur Loveridge Dr Simon Rees	A resilient low-carbon energy transformation for Small Island Developing States	University of Bath University of the West Indies University of Leeds University of Leeds
Dr Joanne Rose Dr Ksenia Chmutina	Promoting resilience in the informal construction sector in Nepal	University of York Loughborough University
Dr Maryam Imani Dr Luiz Fernando Bittencourt Dr Jo Ueyama Dr Leandro Aparecido Villas Mr Boris Ochoa Tocachi	Towards water quality resilience promotion in São Carlos, Brazil: GIS maps development	Anglia Ruskin University University of Campinas University of São Paulo State University of Campinas Imperial College London
Dr Paolo Paoletti Mr James van der Walt Dr Alex Brinkmeyer Dr Sebastiano Fichera	AutoTurtle - Auto unfold solar turtle	University of Liverpool Solar Turtle Oxford Space Systems University of Liverpool
Professor Gilberto Brambilla Dr Roberto Speicys Cardoso Professor Daniel Cordeiro Dr Ali Masoudi	Distributed fibre sensing system to monitor vehicles in smart cities	University of Southampton Scipopulis University of São Paulo University of Southampton
Dr Paolo Paoletti Dr Luiz Fernando Bittencourt Dr Ioannis Papakonstantinou	Towards an autonomous sensing platform for pollution monitoring	University of Liverpool University of Campinas University College London
Dr Ana Namburete Mr Sesinam Dagadu	Portable toolbox for first-response emergency medicine	University of Oxford TinyDavid Ltd
Dr Boksun Kim Mr Tony Chan Professor Danie Hattingh	Development of a mirror-support system for concentrating solar power plant	Plymouth University CPG Consultants Pte Ltd Nelson Mandela Metropolitan University

Tranche 2

Names	Project title	Institutions
Dr Satheesh Krishnamurthy Dr Namrata Sengar Dr Tim Drysdale Professor Nick Braithwaite	Internet of things - smart remote solar PV lab	The Open University University of Kota The Open University The Open University
Dr Ross Wilkins Dr Andrew Fox Mr Isabelo Rabuya	Post-earthquake structural health monitoring system (PE-SMS)	Coventry University Plymouth University University of San Carlos

Names	Project title	Institutions
Dr Mirella Di Lorenzo Dr Francesca Pianosi Mr Rodolfo Rueda	MAPwater: mapping availability and pollution of water resources in rural mexican communities	University of Bath University of Bristol Fomento Mexicano
Dr Cindy Smith Dr Alison Parker Dr Ruth Quinn	Re-engineering Kenyan sand dams by biological design	University of Glasgow Cranfield University Cranfield University
Dr Devin Sapsford Dr Cindy Smith Dr Chris Johnson Dr Kazi Matin Ahmed Dr Richard Crane	Manganese in drinking water: biogeochemistry, analysis and treatment	Cardiff University University of Glasgow Bio Nano Consulting University of Dhaka Cardiff University
Dr Manish Tiwari Dr Richard Bowman Dr Cindy Smith Dr Stavroula Balabani Dr Saugata Hazra Dr Anup Kr. Tewari	A low cost, microengineered platform for rapid point-of-care antibiotic susceptibility testing for developing countries	University College London University of Bath University of Glasgow University College London IIT Roorkee, India Indian Veterinary Research Institute
Professor Carolina Palmer Naveira Cotta Mr Sherif Hamed Dr Lena Ciric Dr Manni Bhatti		Federal University of Rio de Janeiro University College London University College London University College London Hospital
Professor Andrew Hayward		University College London Hospital
Dr Carmel Curtis		University College London Hospital
Ms Bernadette Porter		University College London Hospital
Dr Jeremy Chataway		University College London Hospital
Dr Harry van der Weijde Mr Greg Francis Mr Anand Upadhyay	Decision support systems for local energy policy in India	The University of Edinburgh BOXARR Ltd. The Energy and Resources Institute
Dr Manish Tiwari Dr Namrata Sengar Dr Satheesh Krishnamurthy Mr Anand Upadhyay	Self-cleaning surface coatings for solar photovoltaic and thermal systems to minimise water wastage in cleaning	University College London University of Kota The Open University The Energy and Resources Institute
Mr Pranab Gadhia Dr Ioannis Papakonstantinou Mr Zhuyang Chen		MSA BIO-Energy Pvt Ltd University College London University College London

Names	Project title	Institutions
Dr Andrew Fox Dr Askwar Hilonga	Water for Africa: leveraging local innovations through organisation networks (Water-LION)	Plymouth University The Nelson Mandela African Institution of Science and Technology
Dr Veronica Kiluva		Masinde Muliro University of Science and Technology
Professor Sibilike Makhanu		Oshwal College

RAENG/LLOYD'S REGISTER FOUNDATION RESEARCH FELLOWSHIP

This Fellowship is funded by the Lloyd's Register Foundation, and aimed at outstanding researchers from all branches of engineering who are about to finish their PhDs or have up to three years' post-doctoral experience.

Name	Subject	University
Dr Mark Batty	Holographic light shaping for reverse engineering neural circuit learning	University of Kent
Dr Rebecca Boston	Nanostructured oxides for sustainable energy storage and recovery	University of Sheffield

ENTERPRISE FELLOWSHIPS

Enterprise Fellowships provide funding and support to outstanding entrepreneurial postdoctoral engineers, working at a UK university, to enable them to develop a spin-out business based on their technological idea.

Name	Project title	University
Dr Enass Abo-Hamed	H2GO Power: hydrogen-storage 'plug and play' units for clean and consistent power	Imperial College London
Dr Felicity de Cogan	NitroPep	University of Birmingham
Dr Paul de Sciscio	Cambridge Cardiology: developing catheter-based treatments for valvular heart disease	University of Cambridge
Dr Patrick Dodds	Hexigone inhibitors: self healing solutions	Swansea University
Dr Rob Oldfield	SALSA Sound: the future of live sports audio	University of Salford
Dr Phi Phan	InspiWave: a non-invasive cardiopulmonary monitoring technology	University of Oxford
Dr Katerina Spranger	Oxford Heartbeat: correct stent - ViVa (virtual vascular) project	University College London
Dr Chris Williamson	Flexypix: switchable window panels with high efficiency	University of Cambridge

BLAVATNIK FAMILY FOUNDATION ENTERPRISE FELLOWSHIP ALUMNI AWARDS

The Blavatnik Family Foundation Alumni Awards celebrate engineering innovation and promote role models for engineering entrepreneurship, by recognising the achievements of the most successful early-stage Hub members in turning innovative technologies into viable businesses. Awardees act as role models for future entrepreneurs.

Name	Project title	University
Dr Samuel Chapman	KENOTEQ: 'breathing' bricks that reduce waste in the construction sector	Heriot-Watt University
Dr Alexander Enoch	Robotical Ltd: programmable 3D-printed robot	University of Edinburgh
Dr Loren Picco	Bristol Nano Dynamics: early and accurate leukaemia diagnosis informing custom treatment	University of Bristol
Dr Angus Webb	Dynamon: increasing customer engagement and passing on lessons learned to future entrepreneurs	University of Southampton

SME LEADERS PROGRAMME

The SME Leaders Programme supports promising leaders of high growth engineering SMEs, with a grant towards the cost of training courses and executive education, plus monthly scale-up workshops at the Academy.

Awardee companies

Bodle Technologies	Dulas	React Engineering
BOXARR	Oxford Space Systems	Senergy Innovation
CyberOwl	Onlicar	Spiro Control

LAUNCHPAD COMPETITION

The Launchpad Competition aims to find an exceptionally promising engineering entrepreneur or team of entrepreneurs, between the ages of 16 and 25, and enable them to start a business based on their engineering innovation and maximise the chances of its successful growth. The winner(s) of the competition receive the JC Gammon Award – a prize of £15,000 and membership of the Enterprise Hub. Other individuals or teams may be chosen as runners-up. The winner and finalists are invited to become Hub members.

Winner

Name	Startup company	Project title
Michael Tougher	Spark&Rocket	Soundbops – enabling musical play

RAENG-ERA FOUNDATION ENTREPRENEURS AWARD

This award identifies, encourages and rewards entrepreneurial engineering researchers working in the field of electro-technology.

Winner

Name	Project Title	University
Sorin Popa	Stent Tek	Imperial College London

ROYAL COMMISSION FOR THE EXHIBITION OF 1851 ENTERPRISE FELLOWSHIPS

The Royal Commission for the Exhibition of 1851 Enterprise Fellowships provide funding and support to outstanding entrepreneurial engineering graduates to build a business based on their innovation.

Name	Startup company	Project title
Ming Kong	TangiO	Smart 3D sensing material to replace buttons and trackpads
Henrik Hagemann	CustoMem	Customised membranes for the treatment of polluted water
Yang Lu	VivaCity Labs	Intelligent cameras for better transport planning
Jack Hooper	doppel	Wearable to help users keep calm or stay alert

DISTINGUISHED VISITING FELLOWSHIPS

The Distinguished Visiting Fellowship scheme provides funding for an engineering department in a UK university to host a senior academic from an overseas academic centre of excellence for up to a month. The scheme promotes sharing of the latest developments and allows the participating organisations to discover common and complementary skills and initiatives that could lead to future collaborations.

Award holder	Distinguished visitor	Area of collaboration
Professor Allan Matthews, University of Sheffield	Professor Gary Doll, University of Akron, USA	Interactions between tribological coatings and lubricants
Professor Ying Zheng, University of Edinburgh	Professor Ajay Dalai, University of Saskatchewan, Canada	Biofuels production from lignocellulosic biomass via supercritical technologies
Dr Hongying Meng, Brunel University	Professor Weihua Zhang, Southwest Jiaotong University, China	Deep learning based artificial intelligence methods for fault detection in high speed railway applications
Dr Xiangming Zhou, Brunel University	Professor Zhimin Wu, Dalian University of Technology, China	Integrated structural health monitoring and damage and integrity assessment system with model updating from field measurement for critical civil infrastructure
Professor John Robert Varcoe, University of Surrey	Professor Mohamed Nasef, Universiti Teknologi Malaysia, Malaysia	Elucidating the mechanism of radiation-grafted ion-exchange membrane formation to enable scale-up for application in electrochemical technologies
Yuqiang Bao, London South Bank University	Professor Xianlin Dong, Shanghai Institute of Ceramics, Chinese Academy of Sciences, China	Novel multiferroic composite thin films and devices
Professor Dr Mary Grace Burke, University of Manchester	Professor Qian Chen, University of Illinois at Urbana-Champaign (UIUC), USA	UK-US Collaboration in materials science: quantitative in-situ electron microscopy of adjustable, reconfigurable nanoparticle assemblies
Dr Ombretta Romice, University of Strathclyde	Professor Robert Gifford, University of Victoria, Canada	A new dimension for data-driven urbanism: studying the form of preference

Award holder	Distinguished visitor	Area of collaboration
Dr Jie Huang, University College London	Professor Roger Narayan, University of North Carolina and North Carolina State, USA	Advanced manufacturing for 21st century healthcare
Professor Christopher Alan McMahon, University of Bristol	Professor Eswaran Subrahmanian, Carnegie Mellon University, USA	Design for resilience and sustainability
Professor Janet Carole Read, University of Central Lancashire	Professor Ian MacKenzie, York University, Canada	Engineering interaction and communication for children with special needs
Professor Blanca Rodriguez, University of Oxford	Professor Yoram Rudy, Washington University in St Louis, USA	Computational investigations of cardiac hereditary disease
Professor Manu Haddad, Cardiff University	Professor Aberrahmane Beroual, Ecole Centrale de Lyon, France	Environmentally friendly insulating gases for high- voltage equipment
Professor Stephen Thomas Newman, University of Bath	Professor George Huang, The Hong Kong University, Hong Kong	Application of Industry 4.0 for hybrid manufacturing
Professor Yakun Guo, University of Bradford	Professor Jinhai Zheng, Hohai University, China	Study of wave interaction with offshore wind energy devices
Dr Wim Vanderbauwhede, University of Glasgow	Professor Saji Hameed, University of Aizu, Japan	Investigating the state-of-the-art high level programming compliant, FPGA platforms for accelerating weather and climate modelling
Professor Azizur Rahman, City, University of London	Professor Siddharth Ramachandran, Boston University, USA	Intermodal nonlinear fibre optics using orbital angular momentum
Wuqiang Yang, University of Manchester	Professor Masahiro Takei, Chiba University, Japan	Medical application of electrical impedance tomography
Professor Brian Falzon, Queen's University Belfast	Professor Pascal Hubert, McGill University, Canada	Virtual testing and smart manufacturing of composite materials
Dr Tomasz Witold Liskiewicz, University of Leeds	Professor Pascal Andrey Voevodin, University of North Texas, USA	In-situ wear process diagnostic of adaptive coating compositions
Dr Alison Caroline Raby, Plymouth University	Professor James Goff, University of New South Wales, Australia	Tsunami generation from combined earthquake rupture and landslide
Professor Nduka Nnamdi Ekere, University of Wolverhampton	Professor Yan Cheong Chan, City University of Hong Kong, Hong Kong	Virtual laboratory for development of paste materials used in microsystems assembly
Dr Michail Matthaiou, Queen's University Belfast	Professor Peter Smith, Victoria University of Wellington, New Zealand	Fundamentals of millimetre wave channels: applications to 5G beamforming design
Professor Peter Bruce, University of Oxford	Professor George Crabtree, Argonne National Laboratory, USA	UK - US energy storage research cooperation
Dr Alexander David Shaw, Swansea University	Professor Michael Brennan, São Paulo State University, Brazil	Nonlinear vibration isolators for multiple degree of freedom systems
Boris Grot, University of Edinburgh	Professor Daniel Sorin, Duke University, USA	Computer processors for robotics applications
Dr Geev Mokryani, University of Bradford	Professor Taher Niknam, Shiraz University of Technology, Iran	Optimal mix of renewable energy sources and energy storage systems in distribution networks
Professor Anthony Roy West, University of Sheffield	Professor Rishi Raj, University of Colorado Boulder, USA	Flash sintering of ceramic electrolytes

Award holder	Distinguished visitor	Area of collaboration
Professor Raziye Farmani, University of Exeter	Professor Maria da Conceição Cunha, University of Coimbra, Portugal	Flexible design and management of water distribution systems under deep uncertainty

NEWTON RESEARCH COLLABORATION PROGRAMME

The Newton Research Collaboration Programme is part of the UK Newton Fund, which aims to develop science and innovation partnerships to promote the economic development and social welfare of developing countries.

The main focus of the Newton Research Collaboration Programme is to support the aims of the Newton Fund by facilitating international exchanges lasting three months to a year between researchers in the UK and their counterparts in selected Newton Fund partner countries.

Partner country	UK researcher	Project title	Partner country researcher
Brazil	Professor James Woodcock, University of York	Software engineering for mobile autonomous robots	Professor Augusto Sampaio, Centro de Informática, Universidade Federal de Pernambuco
Brazil	Dr Emmanouil Benetos, Queen Mary University London	Automatic transcription of polyphonic music recordings	Dr Rodrigo Schramm, Universidade Federal do Rio Grande do Sul
Brazil	Dr Abir Hussain, Liverpool John Moores University	A data science approach for the detection of variable light sources in uneven time-domain astronomy	Professor Marley Vellasco, Pontifical Catholic University of Rio de Janeiro
Brazil	Dr Jeff Kettle, Bangor University	Low cost and stable UV sensor for early warning of over exposure to sunlight	Professor Lucas Santos, Universidade Estadual Paulista
Brazil	Dr Juliana Bowles, University of St Andrew's	Improving the efficiency of complex processes through scalable quantitative analysis techniques	Dr Ricardo Czekster, Universidade de Santa Cruz do Sul
Brazil	Professor James Woodcock, University of York	Software engineering for mobile autonomous robots (part 2)	Professor Augusto Sampaio, Centro de Informática at Universidade Federal de Pernambuco (UFPE)
Brazil	Dr Gowsihan Poologasundarampillai, University of Manchester	Cotton-wool-like bioactive glass fibres for oral and maxillofacial regeneration	Dr Felipe Perozzo Daltoé, Federal University of Santa Catarina
Brazil	Dr Yue Huang, Liverpool John Moores University	The role of additive manufacturing in promoting the use of safety barriers to protect vulnerable road users in Brazil	Professor Rafael Santiago, Federal University of ABC
Brazil	Dr Jarmila Glassey, Newcastle University	Novel bioactive molecule production in innovative microbial biotransformation system based on submerged biofilms	Professor Edvaldo Anton Ribeiro Rosa, Pontifical Catholic University of Paraná
Brazil	Dr Andrey Petrov Jivkov, University of Manchester	Modernising the technology for assessment of cleavage fracture probability	Professor Claudio Ruggieri, University of Sao Paulo
Brazil	Dr Ulrich Ofterdinger, Queen's University Belfast	Enhancing water resources management capacity by integrating multi-scale ground and airborne geophysics	Dr Oderson Antonio de Souza Filho, Serviço Geológico do Brasil

Partner country	UK researcher	Project title	Partner country researcher
Brazil	Professor Robin Graham Allaby, University of Warwick	Bioengineering Brazilian indigenous crop diversity into peanuts for a changing climate	Dr Fabio Freitas, EMBRAPA (Brazilian Agricultural Research Corporation)
Brazil	Professor Zheng-Tong Xie, University of Southampton	Mathematical modelling of the mass transfer mechanisms at the top of an urban canopy: an LES and DNS study	Professor Jane M Santos, Universidade Federal do Espirito Santo
Brazil	Professor Ke Chen, University of Liverpool	Development of fast multilevel optimisation techniques for image segmentation and registration models with application to oncology	Professor Jinyun Yuan, Federal University of Paraná
Brazil	Dr Stephanie Gabriele Zihms, Heriot-Watt University	Linking micro- and macro- scale deformation features with experimental and modelling techniques for fractured carbonate reservoirs and beyond	Dr Tiago Miranda, Federal University of Pernambuco
Brazil	Dr Omar Hamza, University of Derby	Improved geohazard assessment and prediction in unplanned urban areas: geotechnical monitoring and modelling of slope instability	Professor Tiago Vargas, Autonomous Water and Wastewater Service of Caxias
Malaysia	Dr Paul Fergus, Liverpool John Moores University	Blueprint for a decision support system for classification and early prediction of polygenic obesity in humans using genetic loci	Professor Rosni Abdullah, Universiti Sains Malaysia
Malaysia	Dr Bipro Nath Dubey, Sheffield Hallam University	Sustainable transformation of food waste for energy generation and byproduct utilisation	Dr Cheng Chin Kui, Universiti Malaysia Pahang
Malaysia	Dr Henriette Stokbro Jensen, University of Sheffield	Opportunities for managing environmental impacts from sewers under hot climate conditions	Dr Wan Hanna Melini Wan Mohtar, National University of Malaysia
Malaysia	Dr Annela Seddon, University of Bristol	Combating antimicrobial resistance through engineering and education	Dr Huey Ling Tan, Universiti Teknologi MARA
Mexico	Dr Raman Maiti, University of Sheffield	Orthopedic implant diagnostic tool for stratified patients	Professor Alejandro Ramirez-Reivich, National Autonomous University of Mexico
South Africa	Dr Waheed Afzal, University of Aberdeen	Carbon capture using ionic solvents for large coal-fired power plants	Professor Deresh Ramjugernath, University of KwaZulu-Natal
South Africa	Dr John Orr, University of Bath	Reducing the environmental impact of concrete structures using fabric-formed fibre reinforced concrete	Professor Billy Boshoff, Stellenbosch University
South Africa	Dr Samuel Edward Rigby, University of Sheffield	Prediction of landmine effects on vehicles	Professor Genevieve Langdon, University of Cape Town
Turkey	Dr Ashraf Ahmed, Queen's University Belfast	The use of physical barriers to reduce saltwater intrusions in coastal aquifers	Dr M Ekrem Karpuzcu, Istanbul Technical University
Turkey	Dr Nicola Ann Morley, University of Sheffield	Anisotropic magnetocaloric effect in polycrystalline ribbons	Dr Aris Quintana-Nedelcos, Marmara University
Turkey	Dr Volkan Degirmenci, University of Warwick	Utilisation of agricultural waste in Turkey: a study on the development of decentralised small scale biomass conversion process	Dr Emre Kiliç, Izmir Yuksek Teknoloji Enstitüsü

Partner country	UK researcher	Project title	Partner country researcher
Turkey	Professor Thanh Thi Kim Nguyen, University College London	Engineering hydrogel nanoparticles to enhance transdermal local anesthetic delivery	Dr Bengi Ozkahraman, Hitit University
Vietnam	Professor Constantinos Stathopoulos, Abertay University	Antimicrobial and antioxidant edible films and coatings prepared from chitosan and bio-agents and their application in seafood preservation	Professor Si Trung Trang, Nha Trang University
Vietnam	Dr Oliver Hensengerth, Northumbria University	Soft engineering approaches to disaster risks reduction. A case study on flood management in the Mekong River Delta in Vietnam	Dr Thi Lan Huong Nguyen, Water Resources University
Vietnam	Professor Keith Scott, Newcastle University	Zinc removal and recovery from industrial wastewater using bioelectrochemical systems	Dr Hai Pham, Vietnam National University
Vietnam	Professor Qi Shi, Liverpool John Moores University	A UK-Vietnam research collaboration on smart cyber-attack detection and mitigation in critical network infrastructure	Dr Tran Nguyen Ngoc, Le Quy Don Technical University
Vietnam	Dr Trung Thanh Nguyen, Liverpool John Moores University	Modelling and optimising rail operations for more sustainable urban transport - a passenger-oriented approach	Dr Minh Hoang Ha, FPT Research Institute, FPT University

LEADERS IN INNOVATION FELLOWSHIPS

The Leaders in Innovation Fellowship (LIF) programme is aimed at researchers from an emerging country who have an innovation that helps address their country's development needs, and offers two weeks of entrepreneurship training and coaching to help them commercialise their innovation. This year, the Academy delivered training to 210 researchers from Brazil, Chile, China, Colombia, Indonesia, India, Malaysia, Mexico, the Philippines, South Africa, Thailand, Turkey, and Vietnam. All LIF participants also have the opportunity to partake in a follow-on support programme lasting up to six months with their individual coaches.

AFRICA PRIZE FOR ENGINEERING INNOVATION

The Africa Prize for Engineering Innovation aims to stimulate, celebrate and reward innovation and entrepreneurship in sub-Saharan Africa through six months of mentoring and training before a cash prize is awarded to the winner and runners-up.

2015/2016 winner

Arthur Zang Cameroon

2015/2016 finalists

Edmand Aijuka Uganda
Felix Kimaru Kenya
Matt Wainwright South Africa

2016/2017 shortlist

Arnold Achiri Cameroon
Godwin Benson Nigeria
Sesinam Dagadu Ghana
Dr Wilfred Fritz South Africa
Kelvin Gacheru Kenya
Edwin Inganji Kenya
Joel Kariuki Kenya
Alex Makalliwa Kenya
Peter Mbiria Kenya
Hindu Nabulumba Uganda
Andre Nel South Africa
Lawrence Ojok Tanzania
Aline Okello Mozambique
Fredrick Ouko Kenya
Brian Turyabagye Uganda
James van der Walt South Africa

INDUSTRIAL FELLOWSHIPS SCHEME

This scheme facilitates knowledge transfer between universities and industry in the UK by providing engineering academic staff with exposure to industrial and commercial practice in a Fellowship for up to one year in industry. It aims to strengthen university and industry relations and enhance teaching upon the Fellow's return.

Name	University	Project title	Host
Dr Richard Bourne	University of Leeds	Self-optimising reactors for pharmaceutical process development	AstraZeneca
Dr Liana Mirela Cipcigan	Cardiff University	Future balancing services for high levels of embedded electricity generation	National Grid
Dr Daniel Edward Clark	Heriot-Watt University	Multi-sensor multi-target tracking applications for UK defence	Defence Science and Technology Laboratory
Dr James Robert Hopgood	University of Edinburgh	Novel signal processing algorithms for automated electrophoresis analysis	Agilent Technologies LDA UK Ltd
Dr Megan Jobson	University of Manchester	Operational optimisation of low-temperature separation processes	Process Integration Ltd
Dr Simon Justin Julier	University College London	Scalable and extensible tracking for virtual production	Mo-Sys Engineering Ltd
Dr Hamed Haddad Khodaparast	Swansea University	Efficient stochastic design of composite aircraft structures	Airbus Operations Ltd
Dr Fatih Kurugollu	Derby University	Media content analysis for cyber security using deep packet inspection	Titan IC Systems Ltd
Dr Chenfeng Li	Swansea University	Temporary works: embedded physics, structural reliability and risk assessment	Costain Group PLC
Dr Dongfang Liang	University of Cambridge	Integrated dynamic modelling of surface and ground waters	Mott MacDonald Ltd
Dr Ioannis Paraskevopoulos	University of Greenwich	Industrial secondment in collective innovative training environments (xCite)	QinetiQ
Dr Christopher Power	University of York	Methods for positive user experiences in big data analytics	International Business Machines Corporation
Dr Rajesh Ransing	Swansea University	7Epsilon: process control and productivity/quality improvement for turbocharger wheel production	Polycast Limited
Dr Karen Renaud	University of Glasgow	Engaging with Scotland's SMEs to improve their digital security	Scottish Business Resilience Centre
Dr Benito Sanz	University of Kent	Development of electronically reconfigurable antennas	Leonardo UK
Dr Antoaneta Serguieva	University College London	Computational intelligence and knowledge engineering approaches to modelling systemic risk	Bank of England
Dr Siraj Ahmed Shaikh	Coventry University	Automotive cybersecurity	MIRA Ltd
Dr Tim Storer	University of Glasgow	Conversation-oriented software project management	Global Rugby Network

Name	University	Project title	Host
Dr Sebastian Timme	University of Liverpool	Airframe aeroelastic analysis, design and development using computational fluid dynamics	BAE Systems
Dr Rafael Viviescas	University of Leicester	Test of constrained multi-objective control for future helicopter rotor technologies	AgustaWestland
Dr Richard Williams	University of Glasgow	Engineering river freedom for resilience	cbec eco-engineering
Dr Tuck Seng Wong	University of Sheffield	Sustainable manufacturing of surface-active chemicals using biocatalysis	Croda Europe Limited
Dr Rong Zhang	University of Southampton	Novel cross-talk cancellation technique for achieving multi-gigabit broadband over copper	British Telecom

ENGINEERING LEADERS SCHOLARSHIPS

This award funds ambitious engineering undergraduates to undertake an accelerated personal development programme in order to move into a leadership position soon after graduation. The Academy currently funds 105 awardees.

Name	Subject	University
Sushant Achawal	Engineering	University of Cambridge
Aminah Ahmad	Chemical engineering	University of Aberdeen
Imran Ahmed	Engineering	University of Cambridge
Ishan Alam	Engineering design	University of Bristol
Lucia Albelda Gimeno	Biomedical engineering	University College London
George Anderson	Mechanical engineering with aerospace	University of Southampton
Anam Balbolia	Civil engineering	Imperial College London
Christopher Bartolo	Mechanical engineering	Queen's University Belfast
Leigh Baxter	Electrical and mechanical engineering	University of Strathclyde
Serban Berariu	Civil engineering	University of Southampton
Thomas Bewley	Engineering design	University of Bristol
Ciprian Blujdea	Mechanical engineering with management	University of Southampton
Georgina Box	Engineering	Durham University
Jake Brown	Mechanical engineering	University of Sheffield
Charlotte Bryant	Chemical engineering	Aston University
Francesca Capaldi	Chemical engineering	University of Strathclyde
Billy Cavanagh	Mechanical engineering	University of Surrey
Jessica Charter	Civil and environmental engineering	Imperial College London
Martina Cheadle	Engineering	University of Cambridge
Yun-Hang Cho	Mechanical engineering	University of Sheffield
Stephen Colbert	Aerospace engineering	Queen's University Belfast
Jennifer Coyle	Chemical engineering	University of Edinburgh
Felix Cox	Mechanical engineering	Queen Mary University London

Name	Subject	University
Matthew Curtis	Engineering design	University of Bristol
Michael Daley	Engineering	University of Cambridge
Olivia Daniel	Engineering design	University of Bristol
Leah Edwards	Mechanical engineering	Loughborough University
Timothy Engstrom	Mechanical engineering	Imperial College London
Tirion Evans	Mechanical engineering	University of Edinburgh
Rachael Eynon	Electronic and electrical engineering	University of Strathclyde
Luke Falzon	Civil engineering	University of Dundee
Federica Freddi	Engineering	University of Cambridge
Thomas Findlay	Civil engineering	University of Edinburgh
Bradley Fowler	Engineering	University of Cambridge
James Fraser	Mechanical engineering	University of Bath
Henri French	Aerospace engineering	University of Bristol
Luca Frondoni	Mechanical engineering	Cardiff University
Olga Fuhrmann	Chemical engineering with management	University of Edinburgh
Ignacio Garcia Leon	Engineering design	University of Bristol
Cherie Gardiner	Mechanical engineering	Queen's University Belfast
Harry Garstka	Engineering design, aerospace	University of Bristol
Miroslav Gasparek	Biomedical engineering	Imperial College London
Alexander Gleed	Medical engineering	University of Surrey
Alexander Goff	Mechanical engineering	Cardiff University
Adam Gristock	Engineering	University of Cambridge
Siddharth Gupta	Engineering	University of Cambridge
Joanna Hartnell	Civil engineering	University of Surrey
Tahir Hassuji	Mechanical engineering	University of Bath
Aurelia Hibbert	Engineering	University of Cambridge
Esmé Hotston Moore	Aeronautical engineering	Imperial College London
Jodie Howlett	Mechanical engineering	Sheffield Hallam University
George Imafidon	Mechanical engineering	University College London
Dmitro Khroma	Engineering design	University of Bristol
James Kinch	Mechanical engineering	University of Leeds
James Lamyman	Ship science with small craft	University of Southampton
Sarah Linnell	Civil and architectural engineering	University of Bath
Susan Little	Electrical and mechanical engineering	University of Strathclyde
Allan MacLeod	Chemical engineering	University of Aberdeen
Charlotte MacNair	Engineering design	University of Bristol
Dominic Maskell	Electronic engineering	University of Southampton
Ella Maule	Mechanical engineering	University of Edinburgh
Javier Maurino-Alperovich	Aeronautical engineering	Imperial College London
John McBride	Mechanical engineering	Queen's University Belfast

Name	Subject	University
Joel McGrath	Mechanical engineering	Queen's University Belfast
Peter McGrattan	Mechanical engineering	Queen's University Belfast
Kieran McHugh	Computer science	University of York
Marnie McKay	Electrical and mechanical engineering	University of Strathclyde
Emma McQuiggan	Mechanical engineering	Queens University Belfast
Connor McShane	Mechanical engineering	Queen's University Belfast
Erin Meredith	Chemical engineering	Loughborough University
Michel Mesquita	Aerospace engineering	University of Surrey
Vladislav Morgen	Electrical and mechanical engineering	University of Strathclyde
Alexander Mulroy	Engineering design	University of Bristol
Charles Newton	Mechanical engineering	Loughborough University
Karolina-Verzhiniya Nikolova	Aerospace engineering	University of Bath
Ronan O'Connell	Biomedical engineering	University of Glasgow
Katherine Oxley	Chemical engineering	University of Sheffield
Hanesh Patel	Engineering	University of Cambridge
Marcia Pryce	Chemical engineering	Newcastle University
Alice Purcell	Mechanical engineering	Queen's University Belfast
Alice Quinn	Innovative manufacturing engineering	Loughborough University
Osian Rees	Engineering design	University of Bristol
Lewis Roberts-James	Mechanical engineering	University of Bristol
Lisa Rossi	Chemical engineering	University of Aberdeen
Max Schinke	Engineering	University of Cambridge
Peter Simmons	Engineering design	University of Bristol
Holly Smith	Civil engineering	University of Bristol
Gareth Stephenson	Product design engineering	Queen's University Belfast
Hugo Stock	Mechanical engineering	Imperial College London
Alexa Strobel	Chemical engineering	University of Cambridge
Monika Szczyrba	Civil engineering with a modern language	University of Sheffield
Kathryn Taheny	Electronics and electrical engineering	University of Edinburgh
Conor Taylor	Aerospace engineering	Queen's University Belfast
Enrico Varano	Engineering design	University of Bristol
Julian Vercruysse	Structural engineering with architecture	University of Edinburgh
Matthew Walker	Chemical engineering	Loughborough University
Liam Warnock	Electronic and electrical engineering	University of Strathclyde
Lucinda Wilkinson	Civil and environmental engineering	Imperial College London
Rhys Williams	Aeronautical engineering	Imperial College London
Robert Winn	Ship science	University of Southampton
Rebecca Wray	Product design engineering	Queen's University Belfast
Jerome Wynne	Engineering design	University of Bristol
Thomas Yard	Mechanical engineering	Imperial College London

Name	Subject	University
Paul Yuile	Electrical and mechanical engineering	University of Strathclyde
Mareks Zevalds	Engineering design	University of Bristol

INGENIOUS PUBLIC ENGAGEMENT AWARDS ROUND 11 AWARDS

Ingenious provides funding for projects that enable engineers to enhance their public engagement skills, and raise awareness of the diversity, nature and impact of engineering.

Awardee	Organisation	Project title
Abed Alaswad	Birmingham City University	Birmingham City Engineering Week
Jonny Boux	New Hackney Education Business Partnership	iDiscover: introducing primary pupils to STEM careers
Colin Dowding	University of Lincoln	Lincolnshire Engineering Festival: SPARK! 2017 - school involvement and legacy projects
Malcolm Dunn	Cheltenham Festivals	Makespace: engineers and makers engaging us with the material world
Zara Gladman	Glasgow Science Festival, University of Glasgow	Imagineer
Wyn Griffiths	Middlesex University	SMASHfestUK: The Earth and Sky Tour
Mark Haw	University of Strathclyde and University of Edinburgh	The Sludgy Stuff Engineering Roadshow
Ben Johnson	Graphic Science Ltd	Heritage heresy: re-imagining Bath by breaking all the rules
Katherine Kirk	University of the West of Scotland	A car for women and other stories: engineering via storytelling
Shane McCracken	Gallomanor Communications	I'm an engineer: online STEM engagement for schools
Tim Minshall	University of Cambridge	How does stuff get made? Developing primary manufacturing outreach capabilities
Neil Noble	The Smallpeice Trust	Public engagement in automotive engineering
Christopher Parkin	Museum of the History of Science	Hooked on invention: a young inventors' club in a museum
James Piercy	Science Made Simple Ltd	Engineering your future
Xanthe Pitt	Discovery Planet C.I.C	Turbines: a wind-wind solution?
Helen Szoor-McElhinney	University of Edinburgh and University of Glasgow	Circuits: connecting engineers with teachers to create novel teaching tools
Gregory Watson	Children's Radio UK Ltd	Engineering Britain's railways for a digital age

VISITING PROFESSORS

The Visiting Professors programme places practising engineers into UK universities to enhance the teaching and learning, as well as employability and skills, of undergraduate engineering students. The programme currently supports 68 Visiting Professors at 37 universities.

Name	University	Name	University
Richard Baker	University of Leeds	Mark Joynson	University of Liverpool
Professor Anthony Banford	University of Manchester	Steve Kaye	Brunel University London
Neil Barron	Royal College of Art	Andrew Langridge	University of Bath
Steven Adams and Dr Sam Beale	University of Cambridge	Chris Lawrence	University of Nottingham
Ron Bell	Liverpool John Moores University	Dr Darren Lee	Lancaster University
Massimo Bombino	Middlesex University	Dr Ivan Lucic	City, University of London
Dr Rick Bradford	University of Bristol	Dr Jon Machtynger	University of Surrey
Dr Andrew Bradley FREng	Loughborough University	Professor Norman MacLeod	University of Leeds
Dr Caspar Clark	University of the West of Scotland	David Maroney	Queen's University Belfast
Dr Andy Clough	WMG, University of Warwick	Brian McFarland	Queen's University Belfast
Professor David Daniels CBE	University of Manchester	Tim Milne	University of Leicester
Dr Ashish Darbari	University of Southampton	Anthony (Tony) Morgan	University of Leeds
Dr Paul Davies	Liverpool John Moores University	Crispin Oakman	University of Nottingham
Peter Debney	University of Bradford	Dr Nelson Ogunshakin OBE	Aston University
David Drew	University of Nottingham	Dr Scott Owens	Imperial College London
Professor Colin Eddie FREng	University of Warwick	Dr Vili Panov	University of Lincoln
Dr Allen Edwards	Cardiff University	Dr Richard Pearson	Brunel University London
Dr Shaun Fitzgerald FREng	University of Cambridge	Xavier Poteau	University of Manchester
Professor Malcolm Fox	University of Bradford	Paul Rawlinson	University of Manchester
Professor Steve Franklin	University of Sheffield	Dr Michael Raxworthy	University of Leeds
Pierre French	University of Huddersfield	Dr Mei Juan Ren	University of Manchester
Dr David Goddard	University of Manchester	Dr Ian Robertson	University of Warwick
Professor Martin Goosey	Loughborough University	Professor Peter Robery FREng	University of Birmingham
Dr Steve Graham	University of Liverpool	Philip Sams	Northumbria University
Dr Isabel Hadley	University of Bristol	Robert Shanks	Coventry University
Dr John Haine	University of Bristol	Professor Graeme Shaw	University of Southampton
Robert Harris FREng	University of Southampton	Dr Andrew Sherlock	University of Edinburgh
Dr Erol Hepsaydir	University of Kent	Dr Aaron Smith	University of Edinburgh
Dr Walter Holweger	University of Southampton	Kevin Steptoe	University of York
Robert Hutchison	University College London	Dr Vaughan Thomas	University College London
Dr Robin Irons	University of Nottingham	Paul Tymkow	Brunel University London
Andrew Jackson	University of Sheffield	Dr Dick Whittington FREng	University of York
Christina Jackson	University of Birmingham	Dr David Williams	Loughborough University
Paul Jennings	University College London	Teo Heng Jimmy Yang	Cardiff University

SAINSBURY MANAGEMENT FELLOWSHIPS

This scheme aims to enhance the capability of the UK engineering industry by providing grants to young engineers with leadership qualities so that they can undertake an MBA course at a leading international business school. Last year, nine Fellowships were awarded.

Name	Business school
Taha Rahman Dar	London Business School
Jonathan Dyson	London Business School
Alessio Falcone	IESE Business School – University of Navarra
Deviyani Misra-Godwin	Harvard Business School
Bishrut Mukherjee	London Business School
Fani Pournara	INSEAD
Samarth Sharma	INSEAD
Jie Shen	London Business School
Animish Sivaramakrishnan	Wharton- University of Pennsylvania

Queen Elizabeth Prize for Engineering

The Queen Elizabeth Prize for Engineering is a global award that celebrates outstanding innovations in engineering that have created significant benefit to humanity. The £1 million prize is awarded to an individual or team of people, of any nationality, directly responsible for a groundbreaking advance in engineering.

QUEEN ELIZABETH PRIZE FOR ENGINEERING PANEL OF JUDGES

Name	Job title	
Professor Sir Christopher Snowden FREng FRS	Chair of Judges Vice-Chancellor, University of Southampton	UK
Professor Frances Arnold	Professor of Chemical Engineering, Bioengineering and Biochemistry, Caltech	USA
Dr Jean-Lou Chameau	President, King Abdullah University of Science and Technology	Saudi Arabia
Professor Brian Cox OBE FRS	Royal Society Research Fellow, University of Manchester	UK
Professor Lynn Gladden CBE FREng FRS	Pro-Vice-Chancellor for Research, Shell Professor of Chemical Engineering, University of Cambridge	UK
Professor John Hennessy	Past President, Stanford University	USA
Professor Carlos Henrique de Brito Cruz	Science Director, Saõ Paulo Research Foundation	Brazil
Professor Dr Dr hc Reinhard Huettl	Past President, German National Academy of Science and Engineering	Germany
Professor Calestous Juma HonFREng FRS	Professor of the Practice of International Development, Director of the Science, Technology and Globalisation Project, Harvard University	Global
Professor Hiroshi Komiyama	President, Engineering Academy Japan	Japan
Dr Dan Mote Jr	President, U.S. National Academy of Engineering; Regents Professor, University of Maryland	USA
Narayana Murthy CBE	Founder, Infosys	India
Professor Choon Fong Shih	Professor, National University of Singapore	Singapore
Professor Dr Dr hc Viola Vogel	Head of Laboratory of Applied Mechanobiology, ETH Zurich	Switzerland
Paul Westbury CBE FREng	Group Technical Director, Laing O'Rourke	UK

QUEEN ELIZABETH PRIZE FOR ENGINEERING FOUNDATION TRUSTEES

The Queen Elizabeth Prize for Engineering is run by a charitable company limited by guarantee and called The Queen Elizabeth Prize Foundation, which manages the prize and its funding.

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The role of the Search Group is: profile raising; engaging the global professional engineering community in making nominations for the prize; acting as global ambassadors for the prize; promoting awareness throughout networks; participating in events; discovering emerging areas of accomplishment and innovation; and assisting in the search for nominations.

Name	Job title	
Professor Stephen Williamson FREng	Chair of Search Group Emeritus Professor, University of Surrey	UK
Professor Jan Cilliers FREng	Head of Department and Chair in Mineral Processing, Imperial College London; Director, Rio Tinto Centre for Advanced Mineral Recovery	UK
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Professor Richard Penty FREng	Professor of Photonics, University of Cambridge; Master, Sidney Sussex College	UK
Dr Scott Steedman CBE FREng	Director of Standards, BSI; Board Member, Port of London Authority	UK
David Thomlinson FREng	Former Senior Managing Director - Geographic Strategy and Operations, Accenture	UK
Dr Jean Venables CBE FREng	Chair, Crane Environmental; Chair, Nuclear Liabilities Fund	UK

Development and fundraising

DEVELOPMENT ADVISORY BOARD

The role of the Development Advisory Board is to support the realisation of the Academy's goals and in particular its fundraising efforts. In anticipation of a major new Academy fundraising campaign the Board is currently being reconstituted.

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Steve Holliday FREng *(from July 2016)*

Members

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Malcolm Brinded CBE FREng

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Dr Tony Hayward *(until September 2016)*

Dr Mike Lynch OBE DL FREng FRS

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CONTRIBUTORS TO ACADEMY PROGRAMMES

The role of the Development Advisory Board is to support the realisation of the Academy's goals and in particular its fundraising efforts. In anticipation of a major new Academy fundraising campaign the Board is currently being reconstituted:

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*a further six Fellows wished their gifts to remain anonymous.

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