



The Royal Academy
of Engineering

The Royal Academy of Engineering Awards and Medals



Contents

| | | |
|------------------------|---|----|
| Welcome | | 1 |
| <hr/> | | |
| Awards | The Royal Academy of Engineering MacRobert Award | 2 |
| | The Royal Academy of Engineering ERA Foundation Entrepreneurs Award | 3 |
| | The Royal Academy of Engineering Sustained Achievement Award | 4 |
| | The Royal Academy of Engineering Sir George Macfarlane Award | 5 |
| | The Royal Academy of Engineering Special Achievement Award | 6 |
| <hr/> | | |
| Medals | The Royal Academy of Engineering Prince Philip Medal | 7 |
| | The Royal Academy of Engineering President's Medal | 8 |
| | The Royal Academy of Engineering Sir Frank Whittle Medal | 9 |
| | The Royal Academy of Engineering International Medal | 10 |
| | The Royal Academy of Engineering Silver Medal | 11 |
| | The Royal Academy of Engineering Rooke Medal for the Public Promotion of Engineering | 12 |
| <hr/> | | |
| Contact Details | | 13 |

Welcome



Celebration of excellence is at the heart of the work of The Royal Academy of Engineering. The United Kingdom continues to provide an abundance of creative engineers whose achievements in scholarship and professional practice of engineering have an impact on a regional, national and international scale. Awards and prizes given by The Royal Academy of Engineering seek to recognise these achievements in honouring the individuals or teams from which they derive and in promoting broader public appreciation. We also have a desire to recognise excellence internationally through our International Medal.

This brochure describes the current portfolio of awards and the procedures through which outstanding talent can be brought to the attention of the Awards Committee. I invite you to ensure that all those known to you who may merit recognition can be nominated or encouraged to apply for these awards, as appropriate.

Further updates and changes are posted on the Academy's website at www.raeng.org.uk/prizes

We are always pleased to respond to any questions or suggestions regarding awards and these can be directed to Sylvia Hampartumian at awards@raeng.org.uk

A handwritten signature in black ink that reads "J. S. Higgins". The signature is written in a cursive, flowing style.

Professor Dame Julia Higgins FREng FRS
Chair of the Awards Committee
Vice President of The Royal Academy of Engineering

The Royal Academy of Engineering MacRobert Award



The Royal Academy of Engineering MacRobert Award is the UK's premier Award for innovation in engineering.

The Award, presented annually since 1969, honours the winning company with a gold medal and team members with a prize of £50,000. It seeks to demonstrate the importance of engineers and engineering in their contribution to national prosperity and quality of life.

Originally founded by the MacRobert Trusts, the Award is now presented by The Royal Academy of Engineering, a prize fund having been established with donations from the MacRobert Trusts, The Royal Academy of Engineering and British industry.

Criteria and Nomination Process:

The Award is open to organisations in the public or private sectors, of any size, and operating in any area of science, engineering and technology. The three criteria used in judging the Award are:

- innovation
- successful commercial exploitation
- benefit to the community.

These criteria may be interpreted broadly so as to reflect the very nature of 21st century engineering and its role in every aspect of modern society.

Nominations are invited to be submitted electronically via the Academy website from all interested individuals and organisations. The finalists are invited to the Academy's Annual Awards Dinner at which the winner is officially announced and the Award presented.

For further information on the Award and to submit a nomination form, please visit the Academy website at www.raeng.org.uk/prizes/macrobot

Previous Winners:

| | |
|------|--|
| 2010 | Inmarsat – Broadband Global Area Network (BGAN) |
| 2009 | Arup Group Ltd – The Water Cube |
| 2008 | Touch Bionics – i-LIMB Hand |
| 2007 | Process Systems Enterprise Ltd – gPROMS advanced mathematical modelling software |

The Royal Academy of Engineering ERA Foundation Entrepreneurs Award



This Award was presented for the first time in 2006. It was established to identify entrepreneurial researchers, working in UK universities in a field involving electro-technology, who are at an early stage in their career. The Award is presented annually to an individual or team demonstrating considerable entrepreneurial promise and the potential to benefit the UK's future prosperity.

The winning entry receives a personal prize of £10,000 together with a further £30,000 to invest in the development of the winning idea through the generous support of the ERA Foundation. The winner(s) will be also assigned an appropriate member of the judging panel as a mentor for a period of up to two years. In addition to the first Award, two additional cash prizes of £2,000 will be presented to the runners-up.

The submission process traditionally opens at the end of summer and closes in October the year preceding the presentation of the Award.

Eligibility and Nomination Process:

Nominations are invited to be submitted electronically via the Academy website and should adhere to the Award's eligibility criteria:

- the applicant must be an engineering researcher in a UK university working in a field involving electro-technology (see further information on the website)
- typically, the applicant must be at an early stage of their research career
- the applicant must be able to produce and defend an outline plan which describes what they have to offer potential supporters and backers and what they would like from them.

For further information on the Award and to submit a nomination form, please visit the Academy website at www.raeng.org.uk/prizes/era

| | | |
|--------------------------|------|---|
| Previous Winners: | 2010 | Dr Alexandre Pechev, University of Surrey |
| | 2009 | Dr David Batterbee, The University of Sheffield |
| | 2008 | EMdot, Queen Mary University |
| | 2007 | Mario Iobbi, Imperial College London |

The Royal Academy of Engineering Sustained Achievement Award



The Royal Academy of Engineering Sustained Achievement Award (formerly Lifetime Achievement Award) is awarded to an engineer, normally resident in the UK, whose sustained achievements over a number of projects have had a profound impact upon their engineering discipline.

First awarded in 2005, the winning individual is presented with a certificate and silver medal.

Nomination Process: Nominations are invited to be submitted electronically via the Academy website from Academy Fellows and external applicants. Nominations should include a citation of not more than 500 words describing the nominee's impact upon engineering as defined by the terms of the Award, a copy of the nominee's CV and two letters of support.

For further information on the Sustained Achievement Award and to submit a nomination form, please visit the Academy website at www.raeng.org.uk/prizes/sustained

Previous Winners:

| | |
|------|---|
| 2010 | Alan Powderham FREng |
| 2009 | Professor Sir Bernard Crossland CBE FREng FRS |
| 2008 | Dr Adam Neville CBE FREng, A & M Engineering Ltd |
| 2007 | Emeritus Professor William Johnson FREng FRS, formerly of the University of Cambridge |

The Royal Academy of Engineering Sir George Macfarlane Award

The Award is in memory of Sir George Macfarlane (1916 - 2007), one of the founding Fellows of the Academy. It recognises the potential of younger UK engineers, who have demonstrated excellence in the early stage of their career (less than eight years since graduation from a first degree in engineering).

This excellence is marked by a quality of leadership and/or technical and scientific attainment that is clearly seen to be outstanding by their employers and organisation. The Award is to recognise this and enables them to attend an educational event at The Royal Academy of Engineering where they may have opportunity to meet other leading engineers and gain professional development skills.

Nomination Process: Nominations are invited to be submitted electronically via the Academy website from Academy Fellows and external applicants. Nominations should include a citation of not more than 500 words describing the nominee's exceptional contribution to engineering as defined by the terms of the Medal, a copy of the nominee's CV and two letters of support.

For further information on the Sir George Macfarlane Award and to submit a nomination form, please visit the Academy website at www.raeng.org.uk/prizes/macfarlane

Previous Winners:

| | |
|------|--|
| 2010 | Will Machin, Team Manager, Plant & Process Engineering, National Nuclear Laboratory |
| 2009 | Dr Silvia Schievano, UCL Institute of Child Health & Great Ormond Street Hospital for Children |
| 2008 | Rosie Clark, Project Engineer at Skelly and Couch LLP |

The Royal Academy of Engineering Special Achievement Award



The Royal Academy of Engineering Special Achievement Award recognises the contribution of an engineer who has led or played a critical role in a major engineering project that has substantial impact on society.

The Award was first awarded in 2005 to Stephen Payne OBE (subsequently elected as a Fellow of the Academy) in recognition of his achievements in designing and project managing the construction of the super liner Queen Mary 2. Stephen Payne was honoured with a certificate and a silver gilt medal.

Nomination Process: Nominations are invited to be submitted electronically via the Academy website from Fellows of the Academy and external applicants. Nominations should include a citation of not more than 500 words describing the nominee's contribution to an engineering project as defined by the terms of the Award, a copy of the nominee's CV and two letters of support.

For further information on the Special Achievement Award and to submit a nomination form, please visit the Academy website at www.raeng.org.uk/prizes/special

Previous Winner: 2005 Stephen Payne OBE RDI FREng, Carnival Shipbuilding

The Royal Academy of Engineering Prince Philip Medal



In 1989 HRH The Prince Philip Duke of Edinburgh KG KT, Senior Fellow of The Royal Academy of Engineering, agreed to the commissioning of a gold medal to be known as the Prince Philip Medal.

The Medal is awarded biennially to an engineer of any nationality who has made an exceptional contribution to engineering as a whole through practice, management or education. The recipient is presented with a gold medal and certificate.

Nomination Process: Nominations are invited to be submitted electronically via the Academy website from Fellows of the Academy. Nominations should include a citation of not more than 500 words describing the nominee's exceptional contribution to engineering as defined by the terms of the Medal, a copy of the nominee's CV and two letters of support.

For further information on the Prince Philip Medal and to submit a nomination form, please visit the Academy website at www.raeng.org.uk/prizes/philip

Previous Winners:

| | |
|------|--|
| 2010 | Professor John Davidson FREng FRS |
| 2008 | Ron Dennis, the McLaren Group |
| 2006 | Professor Olek Zienkiewicz CBE FREng FRS, former Director of the Institute for Numerical Methods in Engineering at the University of Wales |
| 2005 | Professor James Dooge FREng, former Chair in Civil Engineering, University College Dublin |

The Royal Academy of Engineering President's Medal



The President's Medal was first awarded in 1987 to Air Marshal Sir Richard Wakeford KCB LVO OBE AFC, Chairman of Trustees, the MacRobert Trust in recognition of the Trust's long-standing encouragement of excellence in British Engineering.

The Medal is awarded biennially to an organisation or individual who has contributed significantly to the Academy's aims and work through 'initiative in promoting excellence in engineering'. The recipient is presented with a silver gilt medal and certificate.

Nomination Process: Nominations are invited to be submitted electronically via the Academy website from Fellows of the Academy. Nominations should include a citation of not more than 500 words describing the nominee's contribution to the Academy as defined by the terms of the Medal, a copy of the nominee's CV and two letters of support.

For further information on the President's Medal and to submit a nomination form, please visit the Academy website at www.raeng.org.uk/prizes/president

Previous Winners:

| | |
|------|---|
| 2009 | Sir Alan Rudge CBE FREng FRS, the ERA Foundation |
| 2006 | Sir David Davies CBE FREng FRS, the Hazards Forum |
| 2005 | Jonathan Ive, Apple |
| 2004 | Jim Eyre, Wilkinson Eyre Architects |

The Royal Academy of Engineering Sir Frank Whittle Medal



In 1999, The Royal Academy of Engineering established an open competition for the Sir Frank Whittle Medal. It was presented for the first time in 2001 to Professor Sir Tim Berners-Lee OM KBE FREng FRS, the founder of the World Wide Web.

The Sir Frank Whittle Medal, named after Air Commodore Sir Frank Whittle OM KBE FEng FRS Hon FRAeS, father of the jet propulsion engine, is awarded to an engineer, normally resident in the UK, for outstanding and sustained achievement which has contributed to the well-being of the nation. The field of activity in which the Medal is presented changes yearly. The recipient is presented with a silver gilt medal and certificate.

Nomination Process: Nominations are invited to be submitted electronically via the Academy website from Academy Fellows and external applicants. Nominations should include a citation of not more than 500 words describing the nominee's outstanding and sustained achievement which has contributed to the well-being of the nation as defined by the terms of the Award, a copy of the nominee's CV and two letters of support.

For further information on the Sir Frank Whittle Medal and to submit a nomination form, please visit the Academy website at www.raeng.org.uk/prizes/whittle

Previous Winners:

| | |
|------|--|
| 2009 | Professor Sir Michael Brady FREng FRS - Engineering Innovations in Healthcare |
| 2008 | Peter Head OBE FREng - Engineering Innovations for the Environment |
| 2007 | Michael Glover FREng - Engineering Innovations in the Delivery of Large Scale Civil Engineering Structures |
| 2006 | Michael Ramsay - Engineering Innovations in Games |

The Royal Academy of Engineering International Medal



The International Medal was created in 2006 to celebrate The Royal Academy of Engineering's 30th anniversary. The Medal is to be awarded occasionally to an individual, resident outside of the European Union, for his or her outstanding and sustained personal achievement in the broad field of engineering, including commercial or academic leadership or for specific products and/or projects. The recipient is presented with a silver gilt medal and certificate.

Professor Cham Tao Soon FEng was the first recipient of the Academy's International Medal, awarded for his role in the creation and development of the Nanyang Technological University in Singapore.

Nomination Process: For information on the International Medal nomination process, please email the International Team at international@raeng.org.uk

Previous Winners:

| | |
|------|--|
| 2008 | Dr Abdul Kalam, Former President of India |
| 2007 | Professor Xu Kuangdi FEng, President of the Chinese Academy of Engineering |
| 2006 | Professor Cham Tao Soon FEng |

The Royal Academy of Engineering Silver Medal



The Silver Medal was established in 1994 to recognise an outstanding and demonstrated personal contribution to British engineering, which is resulting in successful market exploitation, by an engineer working in the United Kingdom, with less than 22 years in full time employment or equivalent on 1 January in the year of award and who will normally be Chartered.

Up to four medals may be awarded in any one year and recipients are presented with a silver medal and certificate.

Nomination Process: Nominations are invited to be submitted electronically via the Academy website from Academy Fellows and external applicants. Nominations should include a citation describing the nominee's outstanding and demonstrated personal contribution to British engineering, as defined by the terms of the Award and a copy of the nominee's CV.

For further information on the Silver Medal and to submit a nomination form, please visit the Academy website at www.raeng.org.uk/prizes/silver

Previous Winners: 2010 Dr Andrew Harter, Chief Executive Officer of RealVNC Ltd
Dr Nicholas Longfield, a lead Engineer at Corus Strip Products UK
Roger Ridsdill Smith, a Director at Arup
Colin Tregenza Dancer, Director of Architecture at Metaswitch Networks

The Royal Academy of Engineering Rooke Medal for the Public Promotion of Engineering



The Royal Academy of Engineering Rooke Medal for the Public Promotion of Engineering is awarded to an individual, small team or organisation, who has contributed to the Academy's aims and work through initiative in promoting engineering to the public.

The medal has been named in honour of the late Sir Denis Rooke OM CBE FREng FRS, President of the Academy from 1986 – 1991.

First awarded in 2002, the recipient is presented with an antiqued silver medal and certificate.

Nomination Process: Nominations are invited to be submitted electronically via the Academy website from Academy Fellows and external applicants. Nominations should include a citation of not more than 500 words describing the nominee's engagement with the public as defined by the terms of the Medal, a copy of the nominee's CV and two letters of support.

For further information on the Rooke Medal and to submit a nomination form, please visit the Academy website at www.raeng.org.uk/prizes/public

Previous Winners:

| | |
|------|--|
| 2010 | Walking with Robots |
| 2009 | Science Made Simple |
| 2007 | Dr Johnny Ball |
| 2006 | Professor John Burland CBE FREng FRS, Imperial College London |

Contact Details

For specific enquiries on eligibility criteria for each of our Awards and Medals, information on deadline dates and how to submit a nomination, please visit The Royal Academy of Engineering website at www.raeng.org.uk/prizes

Alternatively please contact the Awards Committee Secretariat:

Contact Details: **Sylvia Hampartumian**
Assistant Manager, Awards

The Royal Academy of Engineering
3 Carlton House Terrace
London SW1Y 5DG

Tel: +44 (0) 20 7766 0648
Email: awards@raeng.org.uk

Please note: The details on each of our Awards and Medals are accurate at the time of printing. Please check the Academy website for the most up-to-date information.

The Royal Academy of Engineering

As Britain's national academy for engineering, we bring together the country's most eminent engineers from all disciplines to promote excellence in the science, art and practice of engineering. Our strategic priorities are to enhance the UK's engineering capabilities, to celebrate excellence and inspire the next generation, and to lead debate by guiding informed thinking and influencing public policy.

The Academy's work programmes are driven by three strategic priorities, each of which provides a key contribution to a strong and vibrant engineering sector and to the health and wealth of society.

Enhancing national capabilities


As a priority, we encourage, support and facilitate links between academia and industry. Through targeted national and international programmes, we enhance – and reflect abroad – the UK's performance in the application of science, technology transfer, and the promotion and exploitation of innovation. We support high quality engineering research, encourage an interdisciplinary ethos, facilitate international exchange and provide a means of determining and disseminating best practice. In particular, our activities focus on complex and multidisciplinary areas of rapid development.

Recognising excellence and inspiring the next generation

Excellence breeds excellence. We celebrate engineering excellence and use it to inspire, support and challenge tomorrow's engineering leaders. We focus our initiatives to develop excellence and, through creative and collaborative activity, we demonstrate to the young, and those who influence them, the relevance of engineering to society.

Leading debate

Using the leadership and expertise of our Fellowship, we guide informed thinking, influence public policy making, provide a forum for the mutual exchange of ideas, and pursue effective engagement with society on matters within our competence. The Academy advocates progressive, forward-looking solutions based on impartial advice and quality foundations, and works to enhance appreciation of the positive role of engineering and its contribution to the economic strength of the nation.

 Please recycle this brochure (the cover is treated with a recyclable laminate)



The Royal Academy of Engineering promotes excellence in the science, art and practice of engineering.

Registered charity number 293074

The Royal Academy of Engineering
3 Carlton House Terrace, London SW1Y 5DG

Tel: 020 7766 0600

Fax: 020 7930 1549

www.raeng.org.uk