Royal Academy of Engineering

Becoming a Fellow of the Royal Academy of Engineering



Contents

Foreword	1
About us	2
Theory of Impact from Strategy 2030	3
A Fellowship fit for the future	4
History of the Fellowship of Engineering	10
Why become a Fellow?	12
Our Fellows	14
How to become a Fellow	22
Engineering Excellence Criteria	23
The 11 Membership Selection Panels	26
What happens if you are elected to the Fellowship?	28

Foreword



As the Royal Academy of Engineering celebrates its 50th anniversary in 2026, we have an opportunity to reflect on the strength of our Fellowship and to consider how it can continue to evolve to meet the needs of the engineering profession and society.

The Fellowship remains one of the Academy's most visible and enduring assets, bringing together exceptional engineers whose achievements, leadership and expertise support our mission of Engineering Better Lives.

In recent years, the *Fellowship Fit for the Future* campaign has driven important progress towards a Fellowship that better reflects the breadth and diversity of engineering excellence across the UK and beyond. As we look to the future, our focus is on embedding the principles and practices that emerged from this work into the Academy's membership processes, ensuring continuous improvement and long-term cultural change.

Engineering today operates in an environment of rapid technological, economic and societal change. To remain relevant, trusted and impactful, the Fellowship must continue to recognise excellence in all its forms and reflect the full range of contributions that engineers make across industry, academia, entrepreneurship, public service and the wider profession.

Following the Academy's last review of membership processes in 2021, we will undertake a comprehensive review in 2026. This will examine areas including the nomination process, panel composition, excellence criteria and how the ambitions of Fellowship Fit for the Future are embedded in practice. Through this work, we will continue to uphold the rigour and prestige of Fellowship while ensuring our processes remain fair, effective and future-focused.

I commend this prospectus to you and hope it provides a clear guide to Fellowship, helping us to continue building a Fellowship that is truly fit for the future.

Dame Judith Hackitt DBE FREng
Chair, Royal Academy of Engineering Membership Committee

About us

The Royal Academy of Engineering harnesses the power of engineering to build a sustainable society and an inclusive economy that works for **everyone.**

As a charity, we deliver public benefit from engineering excellence and technology innovation.

As a National Academy, we provide progressive leadership for engineering and technology, and independent expert advice to government, in the UK and beyond.

As a Fellowship, we bring together an unrivalled community of leading businesspeople, entrepreneurs, innovators, and academics from every part of engineering and technology.

In collaboration with our Fellows and partners, our work grows talent and develops skills for the future, drives innovation and builds global partnerships, influences policy and engages the public. Together we're working to solve the greatest challenges of our age.

Everything we do is shaped by our Strategy 2030, which sets out how the Academy and its Fellowship will work together to drive engineering excellence for the benefit of society.

We are guided by our **five values:**

Progressive leadership – embodying the courage, commitment and ambition to drive positive change for engineering and society

Diversity and inclusion – creating cultures in which everyone can thrive and diverse perspectives enrich our collective performance

Excellence everywhere – bringing evidence, expertise, integrity and a passion for continuous improvement to everything we do

Collaboration first – prioritising collaboration and building partnerships to improve outcomes.

Creativity and innovation – solving problems and generating opportunities through creative thinking and innovation.

Theory of Impact from Strategy 2030

Our unique combination of inputs...

Expertise, insights and skills
- Leadership and skills from our Fellows, community and staff.
- Ideas and insights from our Fellows, awardees and partners.

Community and partnerships
- Exceptional regional, national, and international networks.
- An outstanding reputation, built on our unique Fellowship.

Foundations
- Resilient, diversified funding.
- Well-managed product portfolio.
- Improving digital capability.

that drive progress towards our goals.

Sustainable and Innovative Economy
- Solutions and policies that shape a healthier, more sustainable society.
- Improvements in the UK's economy, productivity and regional inequality.
- Faster progress towards sustainability goals.

Technology Improving Lives
- Individuals, institutions and communities using technology to improve lives.
- Empowerment of those impacted by global sustainability challenges and technological disruption.
- More resilient UK infrastructure, processes and democratic institutions.
- Greater public trust and understanding of engineering and technology.

Engineering Community Fit for the Future
- Sufficient skilled, diverse engineers working in a culture that supports excellent outcomes.
- A community of professionals who will meet the needs of society safely, securely and will keep pace with technological innovation.

A Fellowship fit for the future

The Fellowship

Each year, up to 60 Fellows are typically elected to the Fellowship as well as up to 10 International and five Honorary Fellows.

They are distinguished by the postnominals FREng and HonFREng respectively. Existing Fellows nominate and elect new Fellows.

This community of exceptional engineers is at the heart of the Academy's activities. In 2025 alone, Fellows contributed over 25000 hours to support the next generation of engineers and address societal challenges.

Our Fellows do this by providing expert advice, directing the Academy's activities through committees and steering groups, mentoring awardees, promoting and advancing engineering excellence and technology innovation, and so much more.



New Fellows 2025

Royal Academy of Engineering
Becoming a Fellow of the Royal Academy of Engineering

Patron and Royal Fellows

The late HRH The Prince Philip, Duke of Edinburgh was our Senior Fellow – and instrumental in establishing the Academy – and HRH The Princess Royal and HRH The Duke of Kent are Royal Fellows.

In June 2024, His Majesty King Charles III became Patron of the Academy.

Our Royal Fellows support a wide variety of Academy events and activities as well as the Queen Elizabeth Prize for Engineering, the most prestigious global prize for engineering innovation.

"Everything that wasn't invented by God was invented by an engineer."

HRH Prince Philip,
The Duke of Edinburgh



The late HRH The Prince Philip, Duke of Edinburgh was our Founding Senior Fellow



His Majesty King Charles III



HRH The Princess Royal

Types of Fellowship

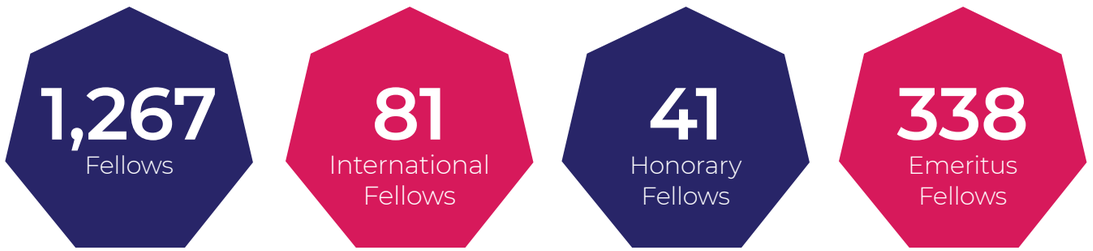
Our Fellows fall into four different categories (not including Royal Fellows):

- **Fellows (FREng):** British citizens working in the UK or overseas, and non-British citizens who are resident and have been working in the UK for more than three years.
- **International Fellows (FREng):** non-British citizens working overseas.
- **Honorary Fellows (HonFREng):** individuals who have made exceptional contributions to engineering, but who may not themselves be practising engineers or engineers qualified for election as Fellow.
- **Emeritus Fellows (FREng):** Fellows (of any type) who, on reaching 80 years old, elect to step away from everyday engagement with the Academy's work. They retain the rights of the Fellowship into which they were elected but are no longer asked to take part in activities.

As of June 2026, the Academy has 1736 Fellows in total; 1282 Fellows, 85 International Fellows, 42 Honorary Fellows and 326 Emeritus Fellows. Among our Fellows: 50% are from industry-based backgrounds; 42% are from academic backgrounds and 8%of our Fellows work for non-for-profit organisations (such as government and the armed services); while 196 of our Fellows are women and 1540 are men.

Our **Honorary Fellows** are expected take an active role in our work.

We hope that future Honorary Fellows will help the Academy deliver charitable impact, for example by acting as ambassadors for engineering and serving as role models for the next generation of engineers. Since his election in 2020, Honorary Fellow Sir Lewis Hamilton MBE has supported the Academy's efforts to attract more young people from all parts of society and worked with the Academy to deliver the Hamilton Commission report on diversity in motorsport.



*Numbers correct as of January 2025

International Fellowship recognises the most exceptional engineers of non-British nationality who have been working overseas. International Fellows are typically elected in recognition of their distinguished career as engineers. However, we are increasingly seeking to recognise nominees who are active in their own countries and may be engaging with the Academy already, will definitely engage with our mission overseas and will assist in accomplishing our charitable goals.

International Fellows should expand the Academy's reach (for example, by opening their networks, making introductions to Academy staff and awardees, engagement or oversight of programmes), and improve the quality of Academy outputs through knowledge exchange, challenge or providing new perspectives.

Priority countries and geographies for International Fellowship candidates include: sub-Saharan Africa, Southeast Asia, Latin America, India, Japan, Korea, Canada, Germany, France, Switzerland, Sweden, Ireland, Australia, and New Zealand.

Priorities

- Increase levels of International Fellow representation in key geographies, with sub-Saharan Africa and Latin America as an immediate priority, followed by Europe, India, Japan and Southeast Asia.
- Increase gender diversity in the International Fellowship.
- Increase career-stage diversity to bring more potential for active engagement, as individuals who can give insight into the current global engineering climate, trends and challenges.

Proactive Nominations Panel

Formed in 2007, our Proactive Nominations Panel ensures that the pipeline of new nominations for Fellowship better reflects the breadth and diversity of engineering across the UK.

The panel makes sure that the pool of candidates nominated for Academy Fellowship demonstrates wider society to achieve a better balance across the Fellowship, in line with the Fellowship for the Future campaign.

To do this, the panel's activities include establishing and managing a system for identifying and tracking potential candidates by engaging Fellows in the process and identifying 'champions' to take candidates through the nomination process.



Summer Reception 2026

Fellowship Fit for the Future campaign

To ensure the Academy reflects the full breadth and diversity of engineering excellence, the Fellowship Fit for the Future campaign was launched in July 2020.

The campaign sought to increase the election of outstanding engineers from groups and sectors that had historically been underrepresented within the Fellowship, including women, Black, Asian and minority ethnic, LGBTQ+ and disabled engineers; those who entered engineering through vocational and non-traditional routes; individuals demonstrating excellence at an earlier career stage; and those working in emerging technologies and industries addressing major societal challenges.

To support these ambitions, the Academy increased the maximum number of Fellows elected each year from 50 to 60 between 2021 and 2026 and set an aspiration for at least half of those elected annually to come from the campaign's target groups.

The Fellowship Fit for the Future campaign has helped broaden the pool of candidates considered for Fellowship and demonstrated the value of taking a more inclusive approach to identifying and recognising engineering excellence.

As the campaign concludes in this the Academy's 50th anniversary year, its principles and practices will be embedded within the Academy's standard membership processes.

The Academy will continue to elect up to 60 Fellows each year, ensuring that the progress achieved through the campaign is sustained and that consideration of the widest possible range of outstanding candidates becomes part of everyday practice. In doing so, the Fellowship will continue to reflect the diversity, talent and impact of the engineering profession while maintaining the Academy's commitment to excellence.



"Our Fellows represent some of the most talented people in the world of engineering and are taken from the ranks of those who are aiming to address some of our most critical problems. There is ample evidence that a wider pool of ideas and experiences helps to improve decision-making and develop novel solutions to global challenges."

Sir John Lazar CBE FREng,
President



Summer Reception 2026



New Fellows 2025

History of the Fellowship of Engineering

The idea for a Fellowship of Engineering was conceived in the late 1960s, during the excitement of the Apollo programme and the buzz of Harold Wilson's 'white heat of technology'.

In 1976, the year of Concorde's first commercial flight, the Academy was established as the Fellowship of Engineering. Since then, we have continued to champion excellence in all fields of engineering to honour the UK's most distinguished engineers.

There had been several attempts throughout the 20th century to form a learned society for engineers, similar to the Royal Society's model for scientists, but none came close to fruition until the involvement of HRH Prince Philip, The Duke of Edinburgh.

In 1965, His Royal Highness became President of the Council of Engineering Institutions (CEI), which was formed from the professional engineering institutions, and set down his own vision for a Fellowship of Engineering, including what form and role it should have.

It was his "very firm belief" that "the only way the profession will ever achieve any influence on national policy and government departments is through some form of Fellowship of distinguished engineers or technologists".

The CEI agreed to the formation of the Fellowship and the new Fellowship was announced at Guildhall on 10 February 1976. His Royal Highness stepped down as President of the CEI and assumed the title of Senior Fellow of the Fellowship of Engineering.

The Fellowship officially met for the first time on 11 June 1976 at Buckingham Palace, where 130 of the UK's finest engineers were enrolled as the Founder Fellows – engineers who over the course of their careers had literally changed the world.



The inaugural meeting of the Fellowship of Engineering at Buckingham Palace

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Founding Fellows

The Founding Fellows comprised the chartered engineers who were Fellows of the Royal Society and a roughly equal number of other engineers selected by the CEI. These engineers were selected on 'the sole basis of eminence', covering the full breadth of engineering.

The group as a whole very much reflected the population of established engineers in British society at the time – they were all white men, the youngest was 48, the eldest 94. The majority had made their names in British engineering businesses – they were the 'captains of industry'.

Many had had wartime experience, some in World War One, more in World War Two. In fact, several had had key roles in supporting Britain during wartime and in later post-war recovery.

The Founding Fellows comprised the chartered engineers who were Fellows of the Royal Society and a roughly equal number of other engineers selected by the CEI.

Among the most recognisable names were:

- **Sir Frank Whittle** – aeronautical engineer, credited with inventing the first turbojet engine.
- **Sir Ove Arup** – visionary civil engineer, famed for work on the Sydney Opera House and founder of Arup.
- **Lord Hinton** – pioneering nuclear engineer, who oversaw the world's first large-scale commercial civil nuclear power station and first President of the Fellowship of Engineering.
- **Sir Maurice Wilkes** – visionary British computer scientist who designed EDSAC, one of the earliest computers with stored programs.
- **Sir Martin Ryle** – English radio astronomer, Astronomer Royal and Nobel Laureate (Physics 1974).
- **Sir Barnes Wallis** – aeroengineer, aircraft designer, and inventor of the 'bouncing bomb' used in the 'Dambusters' raid.

The first woman to be elected as a Fellow was naval radar and torpedo guidance pioneer **Dr Elizabeth Killick** in 1982.

Why become a Fellow?

When Prince Philip spoke at the Fellowship's first AGM in 1977, he directed his words to the first elected intake of New Fellows: *"Election should not be considered as a belated recognition of professional achievement, it is an honour which implies an obligation, to work for the Fellowship and through it to promote the interests and the prestige of the Engineering Profession".* To this day, New Fellows subscribe to the Obligation, to honour and uphold the aims and values of the Academy.

Our Fellows range from pioneering academics and entrepreneurs to leaders of our biggest companies and outstanding engineering communicators, who have made extraordinary contributions to engineering and society. We want the Fellowship to encourage more diverse people to join the engineering profession at all levels and to inspire the next generation of engineers.

Fellowship goes beyond this obligation to the engineering profession. Becoming a Fellow of the Royal Academy of Engineering offers a unique opportunity to take part in the direction and oversight of engineering in the UK, and how it contributes to society and addresses global challenges.

Through membership of the Trustee Board, committees, panels, and sub-panels, Fellows oversee our work in a variety of areas. From funding UK-based academic engineering research, advising the National Engineering Policy Centre, and mentoring engineering entrepreneurs through the Enterprise Hub, to selecting the winners of Academy awards, including the Africa Prize for Engineering Innovation and the MacRobert Award – the UK's longest-running and most prestigious prize for innovation in engineering – each year, Fellows have a real opportunity to make a difference.



New Fellows 2021 Celebration at Prince Philip House

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How Fellows get involved

Our Fellowship enables the Academy to provide a unified voice on behalf of all engineering in the UK, complementing other forums such as the professional engineering institutions.

This is most evident when it comes to advising government on policy, in a world where almost all major questions have a technical engineering element. The **National Engineering Policy Centre** connects policymakers with critical engineering expertise to inform and respond to policy issues of national importance, giving policymakers a route to advice from across the whole profession, and the profession a unified voice on shared challenges. Fellows – including those who work in smaller companies or might normally find their voices lost in the policy formation process – have a direct opportunity to bring their views to bear in this top-level forum.

We want the Fellowship to encourage more diverse people to join the engineering profession at all levels and to inspire the next generation of engineers.

Our **education and skills** programmes are focused on addressing the engineering skills crisis: the UK must produce more highly skilled engineers and technicians to meet its requirements. We work with teachers and employers to make the profession more resilient, diverse and prepared for the future.

Our **grants and prizes** support and celebrate the pursuit of engineering activities and enable closer contact between academia and industry. Awardees include engineering professionals, academics, entrepreneurs, innovators, and students, who we support in numerous ways from study bursaries, business startup funding, and research projects, to knowledge transfer partnerships, public engagement and prizes recognising significant feats of engineering.

Through the **Enterprise Hub**, we invest in some of the UK's most creative and exciting engineering ideas and businesses through support, training, mentoring and funding.

And our innovation support extends beyond the UK. We are a national academy with a **global outlook**. Our global entrepreneurship programmes train innovators worldwide to commercialise their work. And we bring together some of the world's best engineers, in collaboration with other professions, to form international partnerships addressing some of the planet's biggest challenges.

Our **international partnership** work helps develop and promote the UK's global position in engineering and innovation.

Our Fellows

Upon election, all Fellows make a commitment to uphold the Academy's charitable aims: to promote engineering excellence for public benefit. They are expected to engage and further the Academy's work and to abide by the core values of the organisation, including a Fellows' code of conduct.

Fellows engage in a vast variety of activities with and on behalf of the Academy. These include supporting engineering research, policy formation, education, entrepreneurship, and public engagement.

Fellowship of the Academy is one of the highest national honours that an engineer may receive. However, Fellowship itself must not be considered as a mere award or trophy. Every person admitted to the Fellowship subscribes to an obligation to promote the charitable aim of the Academy:

"The pursuit, encouragement and maintenance of excellence in the whole field of engineering to useful purpose in order to promote the advancement of the science, art and practice of engineering for the benefit of the public."



Summer Reception 2026



Professor Raffaella Ocone OBE FREng FRSE

Professor of Chemical Engineering, Heriot-Watt University

With over thirty years' experience in modelling complex systems and reaction networks, Professor Raffaella Ocone OBE – currently Professor of Chemical Engineering at Heriot-Watt University – is an inspirational advocate for women in STEM careers.

Raffaella, who was born in rural southern Italy, obtained an MA and PhD from Princeton University in 1992, before taking on lecturing positions and readerships at the University of Naples, the University of Nottingham and Louisiana State University.

She is widely recognised for her work in modelling complex reactive systems, which has led to several significant real-world applications – including in the development of carbon capture and storage technologies.

Raffaella also has a strong interest in ethics and social responsibility in science, something that she has carried through in her work with the Royal Academy of Engineering. She chaired the Academy's Teaching Ethics Group, and she drove projects with students on the ethicality of the green transition, as well as producing new case studies.

In addition to being a Fellow of the Royal Academy of Engineering – a position to which she was elected in 2013 – Raffaella holds Fellowships with the Royal Society of Edinburgh, the Royal Society of Chemistry and the Institution of Chemical Engineers.

As the first female professor of chemical engineering in Scotland, she is an outspoken critic of the gender imbalance in STEM careers, and a champion of women. Raffaella was awarded an OBE in 2019 in recognition of her services to engineering.



Dr Joshua Macabuag OBE FREng

Co-Founder and Chief Product Officer, Renew-Risk

Dr Joshua Macabuag is a civil engineer who specialises in catastrophe risk modelling and infrastructure resilience.

He is co-founder and Chief Executive Officer of Renew Risk, where he has led advances in quantifying disaster risk for energy systems, particularly in the renewable sector. Joshua's work has also supported global development initiatives, including projects with the World Bank focused on risk in vulnerable regions.

Alongside his commercial work, Joshua is a leading figure in disaster response engineering. As part of the UK's urban search and rescue capability, he has deployed to major international emergencies, including earthquakes in Nepal, Albania and Turkey, Hurricane Irma, and the Beirut port explosion.

His career uniquely combines technical modelling with real-world application, helping organisations better understand, prepare for and respond to extreme events.

Joshua was elected Fellow of the Royal Academy of Engineering in 2023 and awarded an OBE in 2025 for services to engineering and disaster response.

Royal Academy of Engineering
Becoming a Fellow of the Royal Academy of Engineering

Professor Máire O'Neill OBE FREng

Professor of Information Security at Queens University Belfast

Professor Máire O'Neill is a Professor of Information Security at Queen's University Belfast. As the youngest person ever to be inducted into the Irish Academy of Engineering, she is an inspirational figure for young female inventors.

O'Neill studied Electrical and Electronic Engineering at Queen's University Belfast (QUB), later taking on a PhD. During her PhD studies, Máire worked with a university spin-out, Amphion Semiconductor Ltd. It was during this time that she developed an optimised integrated circuit design of the Advanced Encryption Standard (AES) which was used to provide security in set-top box chip sets. The innovation significantly improved efficiency and was successfully commercialised for industrial use.



After finishing her PhD, Máire was awarded a five-year Royal Academy of Engineering research fellowship and became a lecturer at Queen's University Belfast.

Here, she pioneered research on hardware security for electric vehicle charging systems and electronic component counterfeiting. She has also developed practical post-quantum cryptographic architectures and is leading research on security vulnerabilities in QKD systems.

At the age of 32, Máire became the youngest ever Professor of Engineering at QUB. She is currently Director of the Centre for Secure Information Technologies (CSIT) at QUB and Director of the UK-wide Research Institute in Secure Hardware and Embedded Systems (RISE).

Máire's work has earned her numerous accolades both at home and abroad, including a Royal Academy of Engineering Silver Medal, a Blavatnik Award for Young Scientists and a Royal Irish Academy Gold Medal. Máire was elected Fellow of the Royal Academy of Engineering in 2019.



Professor Sriram Subramanian FREng

Professor of Computer Science at University College London

Reimagining how humans interact with technology has been a central theme of Professor Sriram Subramanian's work.

At UCL, where he is Professor of Computer Science and holds a Royal Academy of Engineering Chair in Emerging Technologies, Sriram's research explores tangible interfaces, holography and programmable matter. His work challenges conventional screen-based interaction, creating new ways for users to engage with digital information in physical and immersive environments.

Sriram combines fundamental research with a strong focus on real-world application, co-founding companies such as Ultrahaptics and AcoustoFab to bring new technologies to market.

His "full-stack" approach—spanning science, engineering and design—has helped push forward the field of human–computer interaction.

Sriram was elected Fellow of the Royal Academy of Engineering in 2025.

Dr Billy Boyle MBE FREng

Co-founder at Owlstone Medical

A serial entrepreneur and inventor, Billy co-founded Owlstone Nanotech, developing microchip-based chemical sensors used across sectors including defence, environmental monitoring and healthcare. Building on this work, he later founded Owlstone Medical, where he leads the development of non-invasive diagnostic technologies based on breath analysis.

Under Billy's leadership, Owlstone Medical has grown into a global organisation, with technologies deployed across more than 150 clinical sites. His work has enabled new approaches to disease detection, supporting advances in early diagnosis and precision medicine, and was awarded the prestigious MacRobert Award in 2018.

Billy has secured significant investment and has led the translation of research into commercially viable healthcare solutions. He was elected Fellow of the Royal Academy of Engineering in 2020 and awarded the Academy's Silver Medal for his contributions to engineering innovation.



Royal Academy of Engineering
Becoming a Fellow of the Royal Academy of Engineering



Alice Delahunty FREng

President of UK Electricity Transmission at National Grid

As President of UK Electricity Transmission at National Grid, Alice Delahunty plays a central role in maintaining a reliable and resilient electricity network, while enabling the UK's transition to a low carbon energy system and supporting economic growth.

She is responsible for developing and maintaining the electricity transmission network in England and Wales, including a £31 billion investment programme to support the UK's transition to a low carbon energy system.

An electrical engineer by training, Alice's career spans research and development, operations, asset management and portfolio development across conventional generation, offshore wind and large-scale critical infrastructure.

Her master's thesis was a practical application of artificial intelligence, reflecting her interest in how technology can support the future of the energy system.

Earlier in her career, Alice held senior roles at E.ON, including Head of Operations for offshore wind, where she was responsible for the safety, technical and financial performance of nearly 2GW of generation capacity.

Passionate about the safety and wellbeing of all those who work in the energy industry, Alice has been a board member of G+ (Global Offshore Wind Health and Safety Organisation), an industry body supported by the Energy Institute that promotes world class safety performance across the sector and throughout the life cycle of offshore wind farms.

She has also been a trustee of the Institution of Engineering and Technology (IET) and former winner of its Young Woman Engineer of the Year award. She is currently a board member of EnergyUK.

Alice was elected a Fellow of the Royal Academy of Engineering in 2021 in recognition of her contributions to energy infrastructure and the transition to net zero.



Dr Eben Upton CBE FREng

Founder and CEO at Raspberry Pi Foundation

Dr Eben Upton has made a global name for himself as a technologist, entrepreneur, and advocate for young engineers. Having co-designed the Raspberry Pi computer, Upton uses his expertise and experience to pioneer outreach around increasing computer skills education in schools.

Eben's route into engineering was not an obvious one. After two years of a physics degree at the University of Cambridge, Eben built on his temporary experience at IBM and switched to the Electrical and Information Science Tripos (EIST) course.

After completing his PhD, Eben took on a software engineering role at chip firm Broadcom. Here he continued work on Raspberry Pi, his response to the computing skills recruitment crisis he'd seen at Cambridge.

The Raspberry Pi, a low-cost, credit card-sized computer, received widespread praise for its effects in engaging more children with computing education. It won a Royal Academy of Engineering MacRobert Award, while Eben himself was named one of MIT's 35 Innovators Under 35 in 2012.

Raspberry Pi has sold over 75 million computers since 2012. Its 2024 IPO raised $180 million to fund the Raspberry Pi Foundation's ongoing work in computing education.

Eben is now credited with having established Britain as a world leader in computing skills and education. In 2016, he was awarded a CBE in the New Year Honours, and in 2017, he was elected Fellow of the Royal Academy of Engineering.

Royal Academy of Engineering
Becoming a Fellow of the Royal Academy of Engineering

Dr Roni Savage OBE FREng

CEO and Founder, Jomas Associates

Dr Roni Savage is a Chartered Engineer, Chartered Geologist and Specialist in Land Condition (SiLC), specialising in ground engineering, land reclamation and the remediation of brownfield sites.

She is the founder and Chief Executive of Jomas Associates, an engineering consultancy she established in 2009 to deliver sustainable and innovative solutions to the construction industry, for contaminated land and geotechnical challenges. Roni's work has enabled the safe redevelopment of complex sites, supporting major infrastructure projects, including highway expansions such as the M25.

Roni's approach combines technical excellence with a strong focus on practical delivery and people. Beyond her engineering work, Roni is an influential voice in industry policy. She serves as Construction Policy Chair for the Federation of Small Businesses, where she advocates for improved practices across the sector.

She also serves as a non-executive Director to the UK Government Department of Business and Trade. She was elected a Fellow of the Royal Academy of Engineering in 2024 and was awarded an OBE for services to young people, the construction industry and business in December 2025.



How to become a Fellow

Fellowship of the Royal Academy of Engineering is a national honour, awarded to engineers for outstanding personal engineering achievement. Election to the Fellowship is by nomination only.

The Academy is not a membership organisation, nor is it a professional institution that exists to maintain standards within one sector of engineering only. It is a National Academy that brings together the most successful and talented engineers for a shared purpose: to deliver public benefit through engineering excellence and technology innovation.

Candidates for Fellowship are peer-nominated by two existing Academy Fellows. A nomination is largely written by one Fellow, the proposer, who often works with the nominee to prepare the detailed citation, which provides an account of the candidate's principal personal engineering accomplishments.

Only engineers who are currently active within the profession are eligible for election as Fellows. Nominators are expected to provide evidence that the candidate is likely to make a sustained contribution to our work if elected.

It is an honour to be nominated for Fellowship of the Academy – it is a highly competitive process and there are always more nominations than successfully elected Fellows each year.

Completed nominations are submitted online to the Academy for evaluation by one of eleven Membership Selection Panels (made up of Academy Fellows and tasked with reviewing Fellowship nominations) and the full Membership Committee (made up of the chairs of the selection panels).

All nominations are submitted online via the secure Fellows' area on the Academy's website. The online nominations portal is open all year round, but with a cut-off deadline for submission on **1 September** for each year.



New Fellows' briefing 2022

Engineering Excellence Criteria

The full citation of personal achievements in engineering must highlight the candidate's *individual engineering excellence* during their career, identifying related outcomes. It should not simply list posts.

It is expected that Fellows will embrace and promote the values of the Academy so any evidence of contributions to the advancement of engineering values and ethical practice should also be included. Any evidence that poses a risk to the Academy's reputation, including concerns related to National Security, fraud, corruption or unethical behaviours, will be taken into consideration.

Possible examples include a combination of the following:

a. **A management role of significance** involving ultimate responsibility for the technical decisions taken and application of excellent engineering practice

b. For those in **industrial, commercial, government or military organisations**, research or development resulting in significant new products, processes or practices is valid evidence. Evidence shall be presented, communicated and evaluated so as to accommodate security considerations

c. Nominations from **academic** and **research institutes** should identify inventions or innovation resulting in successful products, processes, practices or policy influence, in addition to providing evidence of a successful academic career; leadership of an engineering school must be complemented by engineering achievements

d. **Consulting engineering** evidence should focus on technical contributions having meaningful and beneficial impact on the projects or operations of the client organisation

e. Evidence of engineering **excellence in education, training and/or teaching** with transformational impact which influences national or international practice

f. Engineers who have demonstrated **outstanding entrepreneurship and leadership** in the creation and sustained growth of engineering-based businesses

g. For engineers at a **relatively early career stage**, evidence of an **impressive trajectory** is needed: contributions of this nature should be outstanding relative to their peer group.

If appropriate, the case should also identify:

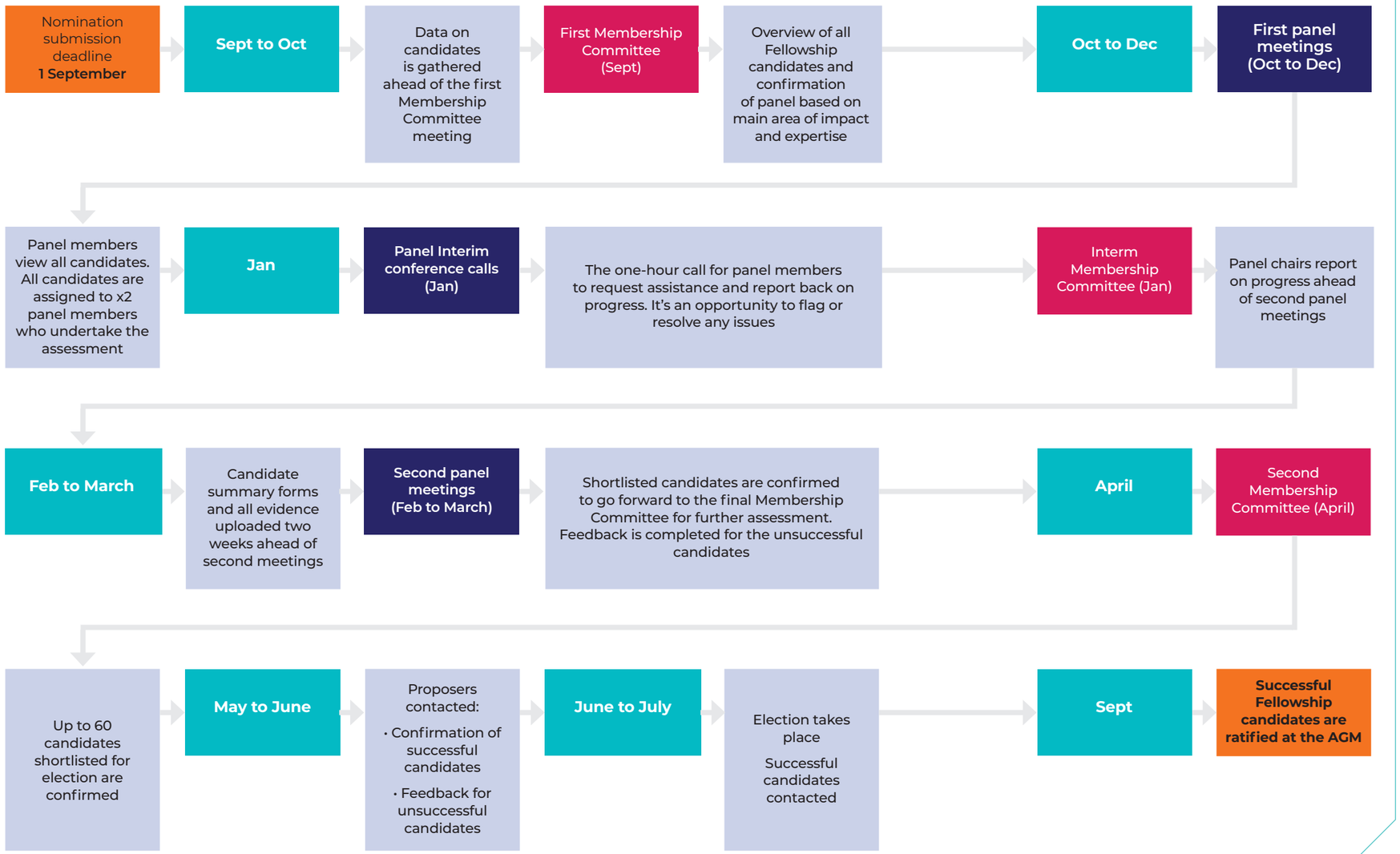
h. influential **personal contributions to prominent committees and agencies concerned with engineering policy or practice**

i. any evidence anticipating **likely contribution to the Academy's work**, for example supporting activities of PEIs, industry associations, standards bodies, etc

j. evidence of **promotion of engineering,** including **outreach activities** across our stakeholder base (e.g. schools, colleges, local and central government, media, the wider public etc).

It is expected that Fellows will be Chartered Engineers or other individuals of equivalent professional standing in engineering who also demonstrate the commitment, ethics and continuing professional development requirements of being a Chartered Engineer.

Membership Processs Map



Royal Academy of Engineering
Becoming a Fellow of the Royal Academy of Engineering

Nomination

The nomination form is prepared by the proposing Fellow. The form, which is completed online, presents all the basic candidate information, contact details and career history. The key section is the full citation, of approximately 500 words, which outlines the candidate's principal personal achievements in engineering. The citation is supported by and cross-referenced to a list of evidence items, which will include specific pieces of work, projects managed, and other resources for panel members to follow up and assess. The full 500-word citation is the primary source of information for evaluating election to the Academy.

It is not a career summary and should not simply list positions held but identify and explain the candidate's most significant personal engineering achievements during their career. The full citation should address the engineering excellence criteria against which the candidate is to be assessed.

It is essential that the full citation draws out the principal engineering achievements of the nominee with identifiable outcomes supported by evidence of impact.

The seconder can also supplement the proposer's work on the nomination in a section permitting up to 10,000 characters. Seconders should follow the same style as proposers, highlighting their nominee's significant engineering achievements and identifying how they meet the engineering excellence criteria.

The 11 Membership Selection Panels

1

Civil, construction and environmental

- including aspects of civil and structural engineering; construction materials; earthquakes; wind and fire engineering; building engineering physics; construction management; numerical modelling; environmental engineering; water resources and flooding; offshore and coastal engineering; hydraulics; climate change and sustainability; waste management; geotechnical engineering; geomatics/surveying.

2

Materials and mining

- including metallurgy; metal forming; corrosion; failure analysis; structural integrity; non-destructive testing; inspection technologies; failure prevention; fabrication and repair technologies; welding and joining technologies; discovery and development of mineral resources; extraction and processing of minerals; mining engineering; materials performance; materials research; plastics and composites; structural materials (excluding materials specifically covered elsewhere).

3

Chemical and process

- including all aspects of chemical and process engineering; aspects of fuel technology; petrochemicals, oil, coal and gas technologies; petroleum engineering; carbon; carbon sequestration; clean technology; sustainability; catalysis; particulates; food processing; fermentation processes; pharmaceutical engineering; biotechnological processes.



4

Aerospace

- including all aspects of aeronautical engineering and aerospace manufacturing; turbomachinery and aerothermal engineering, avionics; radar systems; antennae; satellite systems; autonomous systems; aspects of systems engineering; airlines; materials for aerospace.

5

Transport and mechanical

- aspects of mechanical engineering including automotive; rail and marine engineering; transportation infrastructure; engines; combustion; turbomachinery; mechatronics; acoustics and vibrations; ultrasonics; heat and thermodynamics; fluid dynamics and CFD.

6

Manufacturing and design

- including manufacturing management and manufacturing process innovation; manufacturing business improvement and re-engineering; CAD/CAM; robotics for manufacturing; engineering design.

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7

Electrical and electronic

- including electrical, electronic and control engineering; design for electronics; aspects of nanotechnology and semiconductor engineering; lasers; optoelectronics; photonics; microwave engineering; instrumentation; display technology; solid state electronics.

8

Energy and power

- including energy technologies; including electric power and energy systems engineering; nuclear and renewable energy generation; energy infrastructure; management of energy and energy resources for generation, storage and transmission; distribution and conversion of electric energy and power; electricity supply and energy conservation; hydrogen power; fuel cells.

9

Medical and bioengineering

- including all aspects of medical and biomedical engineering; orthotics; prosthetics; ultrasound for medicine; medical scanning and imaging; drug delivery; biomedical materials; tissue engineering; medical devices; medical robotics and computer assisted surgery.





10

Computing and communications

- including computational and software engineering; informatics; web and data science; artificial intelligence; machine learning; computer vision; robotics; telecommunications; mobile telephony; broadband; wireless spectrum; signal processing; television, film and broadcasting; computer and video games; special effects.

11

Special (including engineering management and multidisciplinary)

- new, emerging or multidisciplinary areas of engineering; leadership and management of engineering business; engineering project management; business improvement and reengineering; also including engineers working in government and the armed services; engineers who have made outstanding contributions to engineering law, education or sectors of engineering not covered elsewhere.

What happens if you are elected to the Fellowship?

A total number of 60 candidates are elected to the Fellowship and up to 10 candidates for International Fellowship.

The Trustee Board selects up to five Honorary Fellowship candidates for election. The Fellowship is given the opportunity to vote via the electoral voting system. Successful candidates are ratified in September at the AGM.

The New Fellows' Welcome Celebration is a two-day event comprising a dinner, briefing and reception, designed to formally welcome new Fellows to the Academy.

The New Fellows' Dinner, at which those elected to the Fellowship receive their scroll, is often held in the presence of one of our Royal Fellows.

The New Fellows' Welcome Celebration provides an opportunity to learn more about the Academy's work and explore ways to engage in its key activities.

The programme includes presentations on the Academy's priorities, a Q&A session with the President, Vice Presidents, Chief Executive and Senior Leadership Team, and short presentations from a selection of new Fellows showcasing their significant contributions to the world of engineering. During the briefing, new Fellows also subscribe to the Fellowship Obligation and sign the Register of Fellows.

The reception offers the wider Fellowship a valuable opportunity to meet the newest cohort of Fellows and formally welcome them to the Academy at Prince Philip House.

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New Fellows 2025



New Fellows 2024



Fellow Event 2025

Contact us

If you would like to know more about Fellowship of the Royal Academy of Engineering or how to nominate a candidate, please get in touch.

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www.raeng.org.uk/about-us/fellowship

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