



The Institution of  
Engineering and Technology

# Move forwards in the healthcare sector

with help from the IET

[theiet.org/healthcare](http://theiet.org/healthcare)



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# Your industry is changing

**The past decade has seen rapid engineering development and adoption of technologies that change the way we live day-to-day life. Healthcare engineering and connected technologies are expected to remain among the world's largest and fastest-growing industries, with the demand for engineering professionals continuing to grow accordingly.**

As healthcare becomes increasingly more complex, engineering will become a major factor in the advancement of the sector.

Artificial intelligence, machine learning, 3D printing, medical devices, data science and robotics will drive future healthcare engineering projects, which means engineers must work as part of cross-functional teams to be able to develop and use connected technologies.

We have detailed all our activities and resources relating to the healthcare sector. Whether you're working in the industry, research, or you're studying, you'll find resources and information to help keep pace with industry changes and move forwards in your career.

By joining a multidisciplinary, professional engineering institution such as the IET, you can keep up to date with industry developments, learn skills that are in demand and build your reputation in this dynamic sector.



# ≡ Stay up to date with the latest engineering news

**E&T is the IET's award-winning monthly magazine and associated website for professional engineers. It covers all areas of engineering and technology, with analysis, news, innovation announcements and job advertisements.**

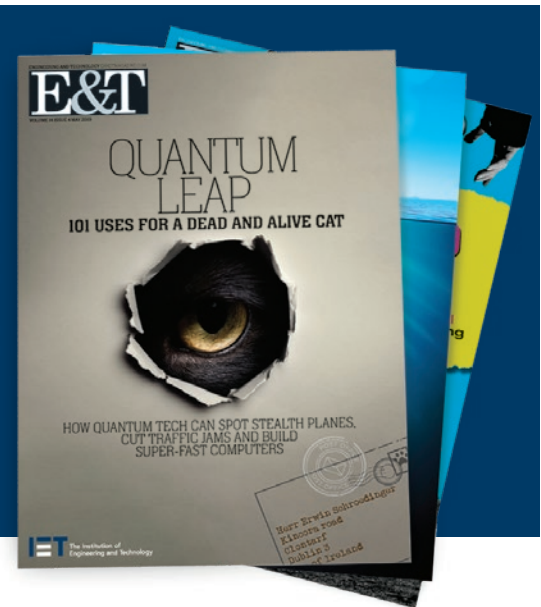
It's available in print, online and via mobile devices. You can also keep up with the latest developments with our daily email newsletter, whitepapers and webinars.

To find out more visit  
[eandtmagazine.com](http://eandtmagazine.com)

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**[eandtmagazine.com](http://eandtmagazine.com)**



# Join us, join in

As Europe's largest membership organisation for engineers and technicians, membership of the IET means a **Professional Home for Life®**. With us you'll find all the tools you need to develop, discover and succeed.

Put simply, the IET is where you belong.

Become a member today and have access to:

- Internationally recognised professional qualifications: **CEng, IEng, EngTech and ICTTech.**
- **Professional services** and support throughout your career.
- Over 100 **local communities** and **technical networks** worldwide.
- Over 1,700 **events** and **networking** opportunities per year.
- **Extensive library** containing digital and printed engineering and technology resources.
- Access to a range of unrivalled **knowledge services.**
- Online tools to **log your development** and **record your skills and achievements.**

Join the IET today:  
**theiet.org/join**

Email us at: [join@theiet.org](mailto:join@theiet.org)

Phone us on: **+44 (0)1438 767648**

or Text: 'IET Join' and your name to **07860 002793\***

\*free text line, no charges apply



# ≡ Keep up to date with industry developments

Explore the IET's resources and you'll find various ways to keep up with what's happening within the healthcare sector and the wider engineering and technology industry.

**IET Communities** bring industry and academia together, giving engineers around the world a platform to network, learn and collaborate. They are open to IET members and non-members, enabling engineers and technicians to network, share and develop knowledge online or face to face. We bring engineers together by region, technical interest or career stage, so you're sure to find one that suits you.

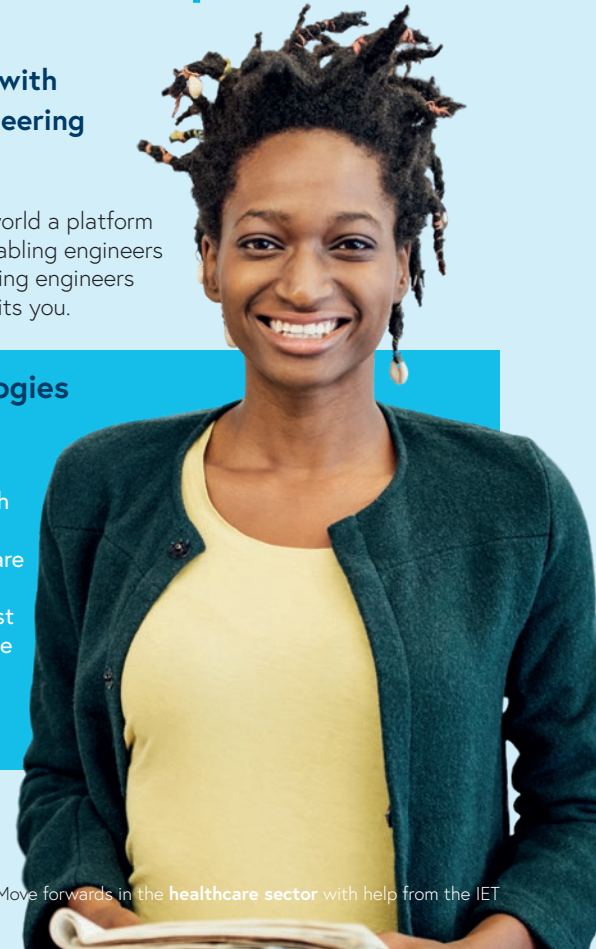
If you're passionate about shaping the future of the healthcare sector, then why not get involved? There are many opportunities available, from attending committee meetings to bringing new ideas to the table, through to the organising, running and promoting of events.

- make new connections and expand your network
- learn new skills that will count towards your CPD
- contribute ideas for event topics
- gain a competitive edge when applying for jobs
- share your passion and inspire others

Visit our website and get involved!  
[theiet.org/communities](https://theiet.org/communities)

## Healthcare technologies network

Join our online Healthcare Technologies network which brings engineers together with clinicians and healthcare industry professionals. You can find out about the latest technical innovations and be part of a dynamic forum to exchange knowledge and develop ideas.



# Events

**If you want insight and debate from top speakers on the engineering and technology topics that are affecting your role – then take a look at our latest events. They include seminars, conferences, technical visits, lectures and more.**

IET events are a great opportunity to meet, network and debate with fellow engineers and practitioners and provide CPD hours which you can record on IET Career Manager.

For those presenting at major events, conference papers are automatically submitted for indexing on IET Inspec, IEEE Xplore and Ei Compendex.

Many of our events are live-streamed or available on-demand on IET.tv.

Find out more

[theiet.org/events](https://theiet.org/events)

[theiet.org/tv](https://theiet.org/tv)



# ≡ Develop skills for the future

**Want to build up the skills and knowledge that you need to remain relevant and progress?**

Take a closer look at what the IET can offer you.

## Training courses

Whether you want to hone your leadership skills, understand finances for clear decision-making or master project management – our professional skills training courses can help.

We have a range of courses that can be delivered in-company or through public courses, webinars and e-classes.

Find out more

[theiet.org/pd-courses](https://theiet.org/pd-courses)

## Continuing Professional Development

Investing time in your Continuing Professional Development (CPD) will help you gain the relevant competencies, the recognised knowledge, skills and attributes you need to deliver results throughout your career.

Keep a record of your CPD and plan future activities using the IET's simple online tool – Career Manager.

Find out more

[theiet.org/cpd](https://theiet.org/cpd)

## Setting a new standard in engineering e-learning

Whatever your career stage, the IET Academy provides expert e-learning courses across a broad range of technical and professional topics.

Whether you need to bring your skills up to date in a specific subject area, maintain your CPD requirements or are looking to find a training solution for your team or company, the IET Academy provides a rich learning experience proven to deliver results.

All courses are written by leading academic and industry organisations and are available as bite-size modules or full courses allowing you to fit your training around your working day.

Find out more

[theiet.org/academy](https://theiet.org/academy)

or email

[academy@theiet.org](mailto:academy@theiet.org)



# Follow the latest in healthcare technologies research

## IET journals

With international editorial boards from the world's leading universities and industry, our journals and conference proceedings cover the latest advances in healthcare technologies research, allowing you to follow the latest trends and find innovative new areas for your own research.

Our open access journal, *Healthcare Technology Letters* brings together an audience of biomedical and electrical engineers, physical and computer scientists, and mathematicians to enable the exchange of the latest ideas and advances through rapid online publication of original healthcare technology research.

Find out more  
[ietdl.org](http://ietdl.org)



# IET Books

Available in print and eBooks our Healthcare Technologies books collection provides international researchers, professionals and students with fresh perspectives and new developments in emerging subject areas including wearable technology, assisted living and biomedical nanomaterials.

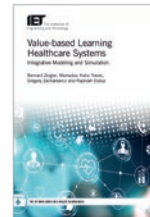
Our healthcare technology collection is available on our Digital Library where you can choose to download the whole eBook or selected chapters. Highlights include the following titles:



*Enhanced Living Environments: From Models to Technologies*, Rossitza Ivanova Goleva et al, Technical University of Sofia Bulgaria.



*Engineering High Quality Medical Software: Regulations, standards, methodologies and tools for certification*, Antonio Coranato, National Research Council of Italy.



*Value-based Learning Healthcare Systems: Integrative modelling and simulation*, Bernard P Zeigler et al, University of Arizona, USA.



*Wearable Technologies and Wireless Body Sensor Networks for Healthcare*, Fernando José Velez & Fardin Derogarian Miyandoab, Universidade da Beira Interior, Portugal.

For more information

[ietdl.org](http://ietdl.org)

# Inspec Analytics for healthcare

Understand your place in the healthcare technology research landscape and make strategic decisions about the direction of your R&D projects with Inspec Analytics, a dynamic new tool based on the IET's renowned Inspec database.



## Support your R&D planning:

- Monitor the healthcare research output of your organisation and see how this ranks globally.
- Compare your organisation with collaborators and competitors to set valuable benchmarks.
- Monitor global trends for hundreds of healthcare research topics to explore new fields and identify resources.
- Find collaboration opportunities with universities, government and health organisations to demonstrate impact.

## For healthcare technology researchers:

- Stay-up-to date with the latest global trends in healthcare technology research.
- Discover new topics related to your field and the resources you need to get up to speed.
- Identify the best journals to publish your healthcare research and conferences to present at.

For more information see

[inspec-analytics.theiet.org](https://inspec-analytics.theiet.org)

# ≡ Maintain best practice with IET Standards

Ensure you're following best practice by referring to our expert Standards publications. Our range includes Guides and Codes of Practice that provide guidance on emerging and established technologies.

## Get involved with Standards creation.

We can create a Standard to help you implement best practice in your industry. Recent projects include working with NHS England to create a new title: *Building Infrastructures for Healthcare ICT*.

Find out more  
[theiet.org/standards](https://theiet.org/standards)

## IET Wiring Regulations

Ensure you're compliant with the latest *IET Wiring Regulations (BS 7671)*. Order your copy of *BS 7671:2018* and our practical guidance publications and find a wealth of resources to get you up to speed with the latest requirements. You can find training solutions, events, digital subscriptions and our free online Wiring Matters magazine direct from the experts at the IET.

You'll find everything you need at  
[theiet.org/18th-resources-pr](https://theiet.org/18th-resources-pr)



# Sharing knowledge and intelligence

We regularly publish white papers, reports and insights that address some of the greatest engineering and technology challenges currently facing the UK healthcare sector, written and peer-reviewed by thought leaders from across the profession.

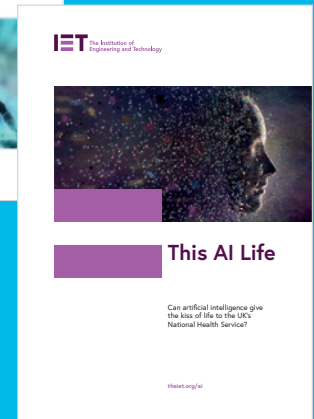
One example is our *'This AI Life'* paper, which examines the benefits that artificial intelligence (AI) technology could bring to healthcare systems such as the UK's National Health Service (NHS), but also the barriers that must be overcome in areas such as ethics, regulation and data handling.

In *'Blockchain in Healthcare'* we explore the 'art of the possible' with this new form of distributed

ledger technology, looking at how it may impact health provisioning, accelerate innovation and enable new data-driven intelligence that facilitates stratified care and seamless integrated care.

Other written material published by IET Healthcare includes papers on 'Healthcare Commissioning', 'Design and Evidence' and the user experience, with more being prepared for future release.

To read our latest reports and papers, visit [theiet.org/healthcare-reports](https://theiet.org/healthcare-reports)



# Build your reputation

If you want to have more influence in the healthcare sector, consider becoming a thought leader, taking on a voluntary role, or even achieving a professional status such as Chartered Engineer.

## Thought Leadership

The IET Healthcare Sector was established to promote innovation and creativity among future leaders in healthcare, social care and wellbeing.

Our mission statement is:



because we believe that technology can drive better health, we exist to harness all sector voices to build a healthier future for all.



By gathering together stakeholders from groups such as clinicians, patients, technologists and entrepreneurs we ultimately aim to bring about more effective and efficient solutions to the health and care needs of international populations.

We achieve this through the expertise of our volunteer-led Sector Panel of IET Members and healthcare practitioners.

To discover more about the work of our expert healthcare panel, visit [theiet.org/healthcare](https://theiet.org/healthcare)

## Other volunteering opportunities

There's a range of volunteering activities to choose from at the IET and the level to which you participate is entirely up to you!

You can:

- become an assessor, mentor or Schools' Liaison Officer
- meet others who live and work in your area or who share your interests in the healthcare sector
- represent the IET on external bodies and organisations

Find out more [theiet.org/volunteers](https://theiet.org/volunteers)

# Achieve professional recognition

Becoming professionally registered proves to employers, customers and peers that you've met standards of knowledge, understanding and competence. You'll be recognised for your skills and achievements and will earn the right to use letters after your name.

We are licensed to award Chartered Engineer (CEng), Incorporated Engineer (IEng) Engineering Technician (EngTech) and Information and Communications Technology Technician (ICTech).

## Brand new!

Electrician EngTech is a new route to EngTech focusing on the competencies and experience specific to electricians.

Find out more  
[theiet.org/profreg](https://theiet.org/profreg)

# Celebrate excellence within your industry

We recognise talent through a wide range of awards and prizes, including our Achievement Medals, Apprentice and Technician of the Year Awards, Young Woman Engineer of the Year Awards, and a variety of scholarships, bursaries and research awards.

Help us celebrate and support the future of the engineering and technology profession by promoting these prizes to your network and help us reward excellence by nominating talented engineers for our awards.

Find out more  
[theiet.org/awards](https://theiet.org/awards)



# ≡ Digital health in Scotland

**In Scotland, digital technology is seen as key to transforming health and social care services, which are becoming more integrated and person-centred.**

Scotland is leading the way in developing leading healthcare technology which addresses the particular challenges of rural communities.

The Scottish Government aims to integrate social care and health as part of a multi-million-pound project involving the NHS and local government. A key part of its Digital Health and Care Strategy is the development of a national digital platform to make relevant real-time data and information available to those who need it, when they need it in a secure and safe way.

The IET is highly active in Scotland and is home to the Engineering Policy Group Scotland (EPGS), an expert panel dedicated to raising the profile of engineering issues in Scotland and beyond. The Group runs regular Holyrood Briefings at the Scottish Parliament and in March 2019 held one on 'Future-proofing society: How digital health and social care can empower and transform lives..

For more information on the IET's activities in Scotland and the work of the EPGS, visit [theiet.org/our-impact-in-scotland](https://theiet.org/our-impact-in-scotland)





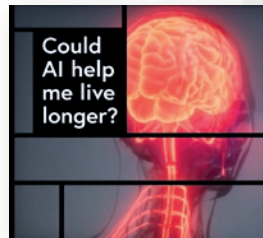
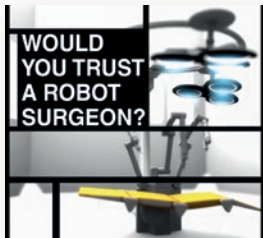
# Highlighting engineering issues which affect society

The IET is home to a rich collection of healthcare-related video resources, from bite-size summaries for social media to full conference recordings captured on camera.

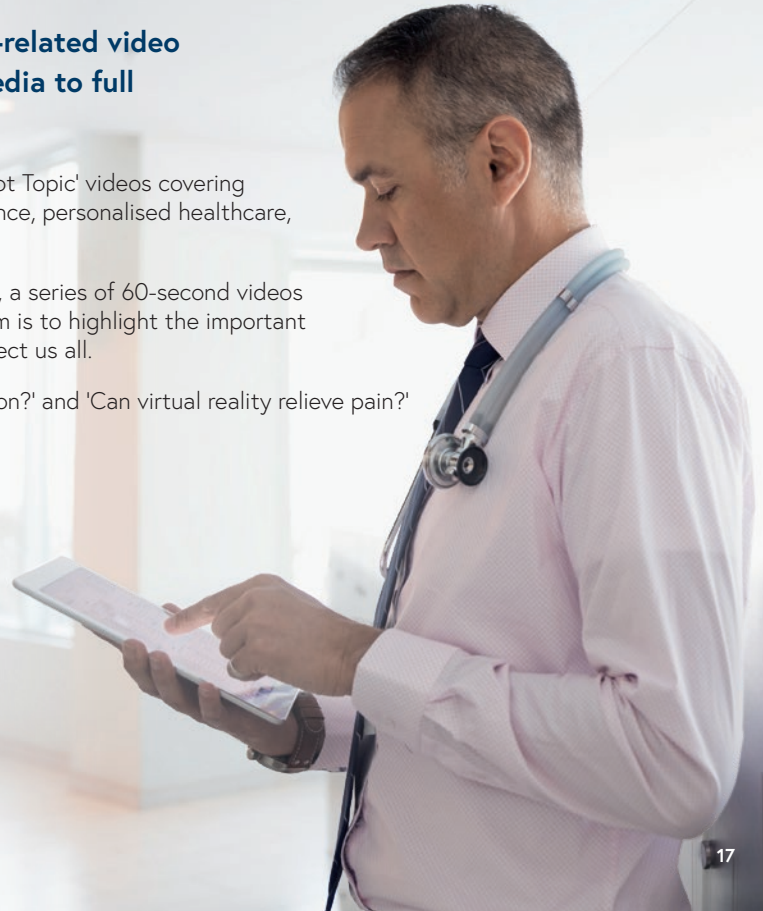
Our ever-growing library of filmed content includes numerous 'Hot Topic' videos covering some of the biggest emerging themes, such as artificial intelligence, personalised healthcare, big data and digitalisation.

To boost our public engagement, we have developed 'EngShorts', a series of 60-second videos which focus on key engineering issues affecting society. Their aim is to highlight the important role that engineering plays in addressing key challenges that affect us all.

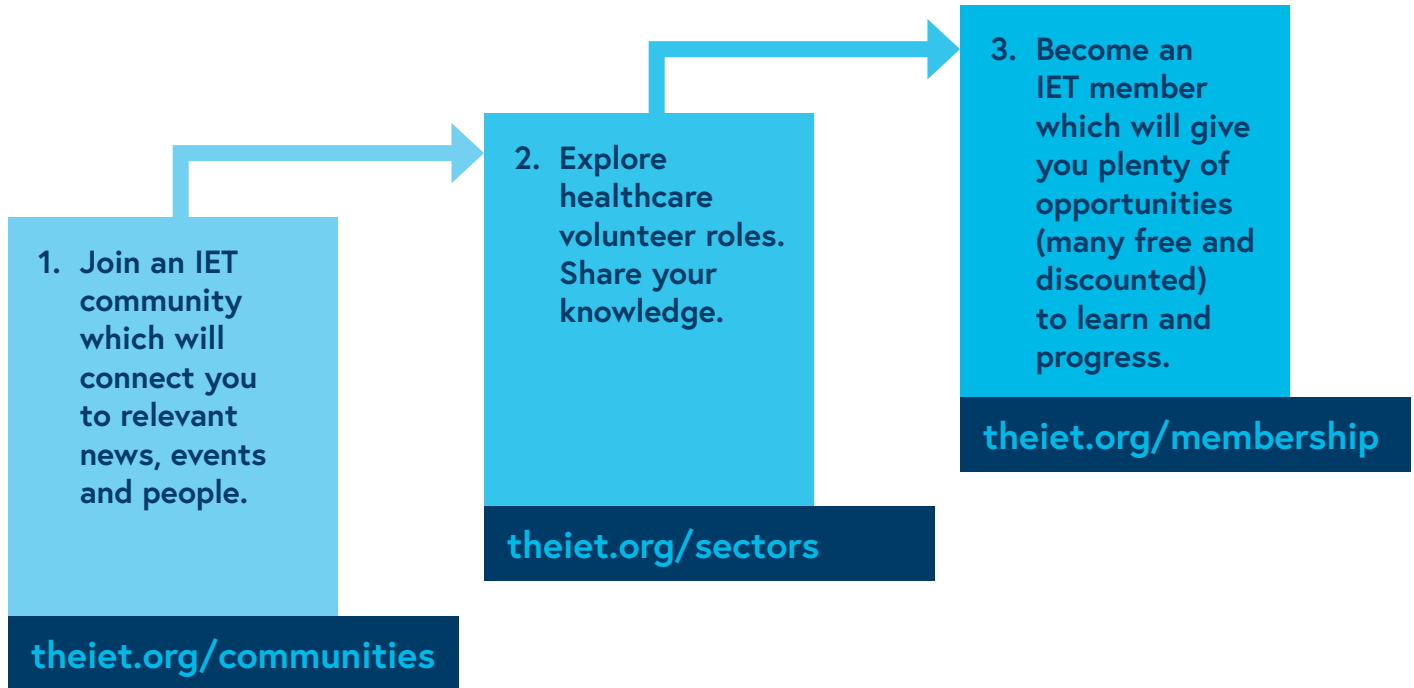
Questions covered so far include 'Would you trust a robot surgeon?' and 'Can virtual reality relieve pain?'



To view some of our latest healthcare videos, visit [theiet.org/healthcare-videos](https://theiet.org/healthcare-videos)



# ≡ Three easy ways you can learn more and progress... today!



# About the IET

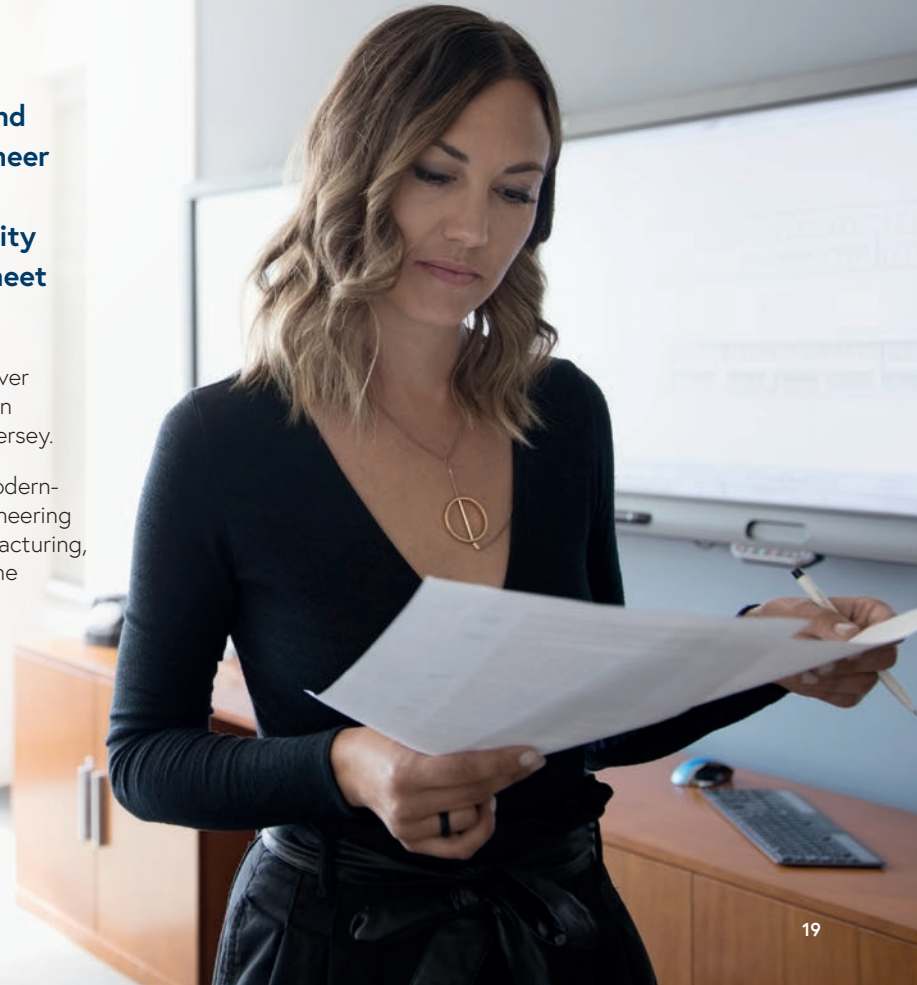
**As a professional engineering institution and a registered charity, we're working to engineer a better world, inspiring, informing and influencing the global engineering community and supporting technology innovation to meet the needs of society.**

We have 169,000 engineer and technician members in over 150 countries, with headquarters in London and offices in Bangalore, Beijing, Hertfordshire, Hong Kong and New Jersey.

Reflecting the increasingly multidisciplinary nature of modern-day engineering, our work celebrates and supports engineering and innovation across key areas, from design and manufacturing, energy, healthcare, and digitalisation to transport and the built environment.

**Passionate about healthcare? We're here to help you take the next steps in your career.**

Find out more  
[theiet.org](https://theiet.org)



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