

IMPERIAL

Department of Electrical
and Electronic Engineering



Some questions (and answers) about our department,
and our undergraduate degree courses in

Electrical and Electronic Engineering (EEE)

Electronic and Information Engineering (EIE)



Industry ready. Third Year MEng students showcase their tech innovations in Imperial's Exhibition Road entrance hall.



First year students launch their lunar rover.



Practical project work in the lab.

You probably have lots of questions about Electrical and Electronic Engineering at Imperial.

What do students love most about your courses?

What's the teaching like?

How flexible are your degree programmes?

What are you researching?

We've put together this little guide to introduce you to our department, our programmes, and our community.



Ask a student:

Q. Why did you choose Imperial?

A. "I was thinking: what skills do I need to become the female Iron Man? The course encompasses everything you need to build something cool, and that's what I was looking for."

Mwana

A. "I always enjoyed science and the arts, so engineering seemed a good fusion: I like creating physical things. I chose this course because of the opportunity to do both hardware and software which isn't that common in university degrees."

Helen

A. "When I applied I wasn't sure about what career I wanted, but I knew that I enjoyed solving complex maths problems for real-life scenarios. The most important thing you need is a passion for problem solving and a creative mindset."

Arijit



What do electrical and electronic engineers do?

Our electrical and electronic engineers connect our world, design and build more efficient and affordable technology, and help us live better, healthier, smarter and more sustainably.

You could say it's 'engineering for humanity'.

We're making all sorts of discoveries and applying our research to some interesting questions:



Could we help patients stay at home? We're pioneering non-invasive wearable electronic devices for the diagnosis and management of chronic respiratory conditions, such as sleep apnoea, COPD and asthma.



When will humans explore Mars? We've created technology which produced oxygen on Mars, a key step towards future human expeditions.

The big question.



What's behind a great masterwork? We've partnered with the National Gallery using signal processing to visualise Leonardo da Vinci's hidden drawings under the surface of his paintings.



What can robots do for us? We use machine learning, computer vision and adaptive control to personalise the assistance that robots can provide in healthcare and manufacturing.



Can our technology make our cities greener? We're developing highly efficient wireless-powered charging pads for electric vehicles to help our cities reduce environmental pollution and make effective use of public space.



How can we speed up a diagnosis? We design 'lab-on-a-chip' technology providing rapid respiratory virus testing for Olympic athletes, and early detection of diseases like malaria.



When will we switch off the last of our fossil fuel power stations? We're joining forces across the world to overcome the control challenges of operating electricity grids with 100% renewable energy.

Our courses

MEng and BEng in Electrical and Electronic Engineering (EEE)

MEng EEE with Management

MEng EEE with a Year Abroad

MEng and BEng in Electronic and Information Engineering (EIE)

MEng EIE with a Year Abroad

Electrical and electronic engineering right now is characterised by its fast-evolving and interdisciplinary nature, driving innovation across unlimited applications, and making it such an exciting and rewarding place for creative and talented problem-solvers.

Our degree programmes are designed to give you room to explore the breadth of electrical and engineering topics, so you can take your time to choose a route that fits your developing skills and interests at every step.

What are EEE and EIE subjects?

EEE: Think of anything that involves electrons and electromagnetism – from transistors, sensors, actuators, and wireless communication systems to electrical power systems and more.

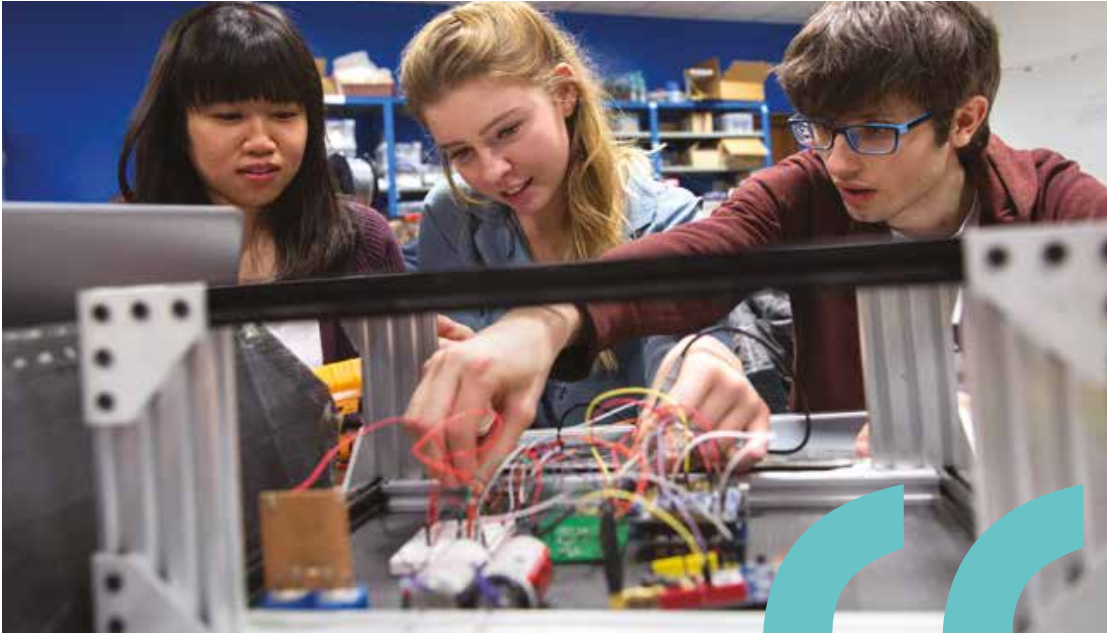
EIE: All kinds of computers – from microprocessors to mobile phones, laptops to servers and networks of servers.

EEE and EIE: Whichever pathway you choose, you'll learn how to design the software and algorithms essential for creating all today's technology.

You can also choose to follow a degree that's a combination of engineering and business subject modules (MEng EEE with Management) or spend a year studying overseas (MEng EEE or EIE with a Year Abroad), and you can add humanities and language options to any of our core programmes.



Game changers. A student tries out a computer version of Twister.



Project group testing their design of a shipping crate tracking and handling system.



What's the course structure?

Steps to success

Year one

Strong foundations

A common first year programme gives all students the same solid academic grounding in the engineering skills and theory you'll need for the next stage of your degree.

Year two

Finding your focus

Your second year sees you start to specialise in 'Electrical and Electronic Engineering' (EEE) or 'Electronic and Information Engineering' (EIE) with a programme of modules tailored to your choice of degree course.

Year three

Developing your expertise

Choose from a range of optional modules, including humanities and language options to build your programme further.

Our third year industrial placement option gives you the opportunity to spend six months in industry and experience engineering in action, or you can take part in a group project creating innovative solutions to a design challenge proposed by an industrial client. If you're on the BEng course you'll complete your final year individual project.

Year four

Industry ready

Create your own programme from around 35 to 40 advanced specialist modules, and showcase your imagination, creativity and independent engineering expertise in a major final year project of your choice.

Ask a student:

Q. Why would you recommend the industry placement?

A. "The placement is an invaluable experience that lets you explore career paths using the technical foundation Imperial provides. I'm currently working as a Software Engineering intern – I get to solve business problems using software engineering, and experience life as a working professional".

Wendy





Can I enhance my options?

MEng EEE with Management

Enterprising EEE students can take the option to specialise further in third and fourth year with a programme of 50:50 business modules and EEE technical subjects. You'll study topics such as accounting, corporate finance and economics, delivered by Imperial College Business School.

Ask a student:

Q. How has the Management programme helped prepare you for your career?

A. "Studying a combination of technical and business modules allows you to gain a more informed perspective on business through a technical, engineering lens. Whether working for a company or creating a start-up, having a better understanding of both the technical and commercial worlds allows you to be a more efficient and independent engineer or manager."

Sanjana

MEng EEE or EIE with a Year Abroad

For an extra international perspective, eligible students can choose to spend Year 4 at one of our partner universities in Europe, Singapore or the USA.

Ask a student:

Q. What have you learned most from your Year Abroad?

A. "The year abroad was not just an opportunity to explore a new city and country, but more of a chance to dive deeper into the field I love, explore things from a different perspective and form a well-rounded perspective of the engineering world. All of which set me on a path to become a globally engaged engineer".

Christos



Building and testing a VR headset.



YOGI is a personal companion system which can connect to other smart devices, designed to help elderly people living alone.

What's the teaching like?

We describe our teaching as 'research led and student focused', with projects and coursework inspired by our world-leading research.

A focus on highly practical lab work helps students get to grips with the theory.

Ask a student:

Q. What's do you enjoy most about the teaching?

A: "One of the best things is the focus on practical teaching. I did my industrial placement with Mercedes Petronas and got the opportunity to design new hardware boards and programming software to optimise the Formula 1 car. It was great to apply the things we learned on the course so soon, and learn from experienced engineers".

Sven

Are your courses challenging?

Our undergraduate programmes are designed to challenge even the top A* students, but a supportive learning environment aims to help you stay on track.

Don't be afraid to ask us questions. In fact, we love it when you do!

Ask a student:

Q. Is it a tough course?

A. "It is tough, but you can get through it. There are a lot of difficult things to get your head around but they are pretty cool topics which actually makes it fun. All your classmates will be in the same boat, and it's a great feeling when you come together to try and solve a problem".

Rishil

A. "The teaching staff in EEE are incredibly passionate and knowledgeable about their respective fields, and are always willing to help students".

Jason





Ask a student:

Q. What do you love most about Electrical and Electronic Engineering at Imperial?

A. “What I love is the flexibility and variety of courses to choose from. I chose to specialise in Analogue Circuit Design, but I also took modules in Digital Image Processing. The option to do a six-month integrated placement is a great way to gain exposure to industry – I spent an immensely useful time at chip company MediaTek. I’m now in my final year working on a major analogue design project on RF power amplifiers. The supporting modules have been amazing – I highly recommend Full Custom IC Design and Instrumentation in the fourth year.

Umut

A. “I liked the sound of engineering in general, but I chose EEE because I wanted to understand the everyday devices we use, and what the future of technology could look like. The course goes deeper than I realised, and I’ve loved exploring the various facets – whether its electronics projects in first year that emphasised how easy it is for anyone to create new things, or my optional specialist modules in Biomedical Electronics and Sustainable Energy in third and fourth year. It’s been super cool to learn about so many applications of engineering that are often at the cutting edge of innovation.”

Priya



Why should I choose Imperial?

- **A world-class research and learning environment.** Teaching programmes inspired by our internationally-leading research.
- **A practical and professional engineering toolkit.** Hands-on lab work, hardware and software training, projects that reflect real world industry to develop your leadership and management skills.
- **A flexible pathway.** Design your own degree programme to fit your developing skills and interests.
- **Enhance your options.** Combine your technical modules with an integrated business degree or a year's study overseas.
- **An integrated six month placement option.** Give your CV a head-start as part of your four year studies.
- **A cultural perspective.** As future global problem solvers, our graduates understand engineering challenges from multiple perspectives, and work in diverse and international teams.

Our courses 2025 entry

Expected intake **180**
 Applications: places **7:1**
 English language level **H**
 Admission test (ESAT)
 Interview

What the icons mean

- Direct application not possible; apply to core course through UCAS
- † Mathematics Analysis and Approaches syllabus preferred

Entry requirements

Find out more about entry requirements in the Imperial Study Guide.

UCAS code

Length (years)

SUBJECT

Electrical and Electronic Engineering

	UCAS code	Length (years)
BEng Electrical and Electronic Engineering	H600	3
MEng Electrical and Electronic Engineering	H604	4
MEng Electrical and Electronic Engineering with a Year Abroad	---	4
MEng Electrical and Electronic Engineering with Management	H6N2	4
BEng Electronic and Information Engineering	HG65	3
MEng Electronic and Information Engineering	GH56	4
MEng Electronic and Information Engineering with a Year Abroad	---	4

A-LEVEL

Minimum entry standard

Typical offer

A*A*A or **A*AAA** overall, to include:
A* in Mathematics
A/A* in Physics (**A*** is required if applying with three A-levels, at least an **A** is required if applying with four A-levels)
A in a third and/or fourth subject

Three A-levels:
A*AA–A*A*A
 Four A-levels:
A*AAA

INTERNATIONAL BACCALAUREATE

Minimum entry standard

Typical offer

40 points overall, to include:
7 in Mathematics†
7 in Physics

40 points

Our courses are accredited by the Institution of Engineering and Technology (IET). Our department's expected intake figures are indicative of the number of places available for 2025 entry. Figures are based on 2023 entry data and are subject to change.

Any questions?

Contact our EEE Admissions team:
admit.eee@imperial.ac.uk

Find out more:
imperial.ac.uk/electricalengineering
imperial.ac.uk/study

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Important info about possible changes

We've made every effort to ensure this publication is up to date. Information about courses may change after its publication. Please read in conjunction with other published information before you make a decision, including:
imperial.ac.uk/study
imperial.ac.uk/students/termsandconditions

Credits

Thank you to all the students who shared their answers.
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Created by Impress Print Services who are committed to reducing carbon and sustainable manufacturing.

Cover image: Third year students get to grips with design, modelling and control for robotic manipulation.

Want to see more?

Watch our video featuring department staff and students.



Lab work helps you develop your practical engineering skills.

