

# Electronic Engineering



Undergraduate Studies



ROYAL  
HOLLOWAY  
UNIVERSITY  
OF LONDON

# Welcome



Creativity is at the root of all great engineering inventions, solving problems and implementing new ideas into smaller and faster devices to enhance human existence.

Here at Royal Holloway it is an exciting and highly creative time as we deliver new degree courses and grow new research groups around our strengths from a brand new

building designed for today's Electronic Engineering.

Project-led activities are at the heart of our teaching to encourage entrepreneurship and group working in all stages of the curriculum.

We invite you to join us and develop your skills to become part of the global teams of electronic engineers who are striving to find solutions and improve lives in our fast-moving technological world.

**Professor David Howard**

Head of Department



**CREATING  
TECHNICAL  
SOLUTIONS**  
FOR AN EVOLVING WORLD

## Contact details

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### Connect with us

 @RHElecEng

 RHULElectronicEngineering

[royalholloway.ac.uk/  
electronicengineering](http://royalholloway.ac.uk/electronicengineering)

Front cover image credit: Tom Bright

# Electronic Engineering at Royal Holloway

The products of electronic engineering are all around us in our daily lives, creating a demand for excellent engineers with a creative passion to put technology into the service of humankind.

From the sustainability of the environment in which we and future generations will live, to the development of multimedia technology, nanotechnology, biomedicine, secure communication and computer systems that enhance living – there has never been a more exciting time to study Electronic Engineering at Royal Holloway.

Our staff bring their research expertise to their teaching, and our curriculum is informed by our excellent industrial links, ensuring our degree courses are designed to meet market needs and our graduates are highly employable. We offer:

- a young and dynamic department with state-of-the-art facilities set in an established university campus.
- an exciting range of degree courses combining creativity, innovation and market need across science, engineering and digital arts.
- a focus on project-led teaching carried out in teams to reflect typical engineering practice, reinforced by practical laboratory work. Coupled with this is the underpinning mathematics and science to enable electronic solutions to be created that address real-world needs.
- a supportive community with a Personal Advisor system which means that you receive personalised advice and pastoral support throughout your degree to help you get the most out of your time here.
- an inclusive environment in which we positively encourage and support female applicants.
- industrial links and year in industry options to build your skills and prepare you for a career in a multitude of areas within and beyond electronic engineering.



# Choosing your degree

Electronic Engineering can be studied as a three year BEng in Electronic Engineering or four year MEng in Electronic Engineering. You can also choose Computer Systems Engineering, a degree that will broaden your technological knowledge and understanding in Computer Sciences and Electronic Engineering. All our degree courses can include a year in industry for which we help you to find a suitable placement.

Whichever degree you choose, you will learn the theoretical and practical knowledge for tomorrow's electronics industries, acquiring valuable skills through hands-on, project-based activities to prepare you for an exciting career ahead.

Our degree structure has a common first three years for the BEng and MEng courses. The fundamentals of electronic engineering are covered in years 1 and 2 with module choice being available in years 3 and 4.

For details of current module options, and our entry requirements please see our website.

As an undergraduate student you may also apply to take an additional placement year (spent studying abroad, working or carrying out voluntary work) after you have joined us.

A range of Royal Holloway scholarships and bursaries are available for applicants to Electronic Engineering, including scholarships for high achieving applicants. Please see our website for details.

## IET accredited degrees

Our BEng and MEng Electronic Engineering degrees are fully accredited by The Institution of Engineering and Technology (IET). The benefits of an IET accredited course include increased opportunities, being looked on favourably by employers and completing the first step in your journey to achieving professional Chartered Engineer (CEng) status after graduation.



## DEGREES

	UCAS code
<b>BEng Electronic Engineering</b>	HH61
<b>BEng Electronic Engineering with a Year in Industry</b>	H661
<b>MEng Electronic Engineering</b>	H61H
<b>MEng Electronic Engineering with a Year in Industry</b>	H6H1
<b>BEng Computer Systems Engineering</b>	HG01
<b>BEng Computer Systems Engineering with a Year in Industry</b>	HG19
<b>MEng Computer Systems Engineering</b>	HG02
<b>MEng Computer Systems Engineering with a Year in Industry</b>	HG29
<b>BEng Electronic Engineering (with an Integrated Foundation Year)</b>	HH6F
<b>BEng Computer Systems Engineering (with an Integrated Foundation Year)</b>	HG0F



## Studying here

Our teaching activities include lectures, workshops and seminars with practical project work carried out in groups and individually in purpose-built creative spaces and fabrication laboratories.

Various assessment methods are used including examinations for theoretical subjects, formal presentations, reports and practical demonstrations for project work with additional viva voce examinations for final year individual projects. Students are expected to review lecture material after lectures to support their learning and to preview laboratory scripts before coming to laboratory sessions.

Fundamental to the industrial workplace is group working, where excellent written and verbal communication skills are highly valued and sought after; these are developed and assessed formally as part of project-based work.

All students will have an allocated Personal Advisor as someone with whom any issues can be discussed to enable advice and help to be given as appropriate.

### Links with industry

Our location within the South East regional hub of electronics businesses facilitates links with leading UK based electronics companies who can offer potential industrial year-out placements, vacation internships and post-degree employment.

On degrees with an integrated Year in Industry placement you will develop your skills and gain an insight into industry, acquiring commercial experience to boost your career prospects.

### Partnership with the UK Electronics Skills Foundation

Our students can benefit from the UKESF scholarship scheme and internship programme, which connects the most capable Electronics undergraduates with leading companies in the sector. UKESF offers opportunities for undergraduates to take up an industry placement, develop their employability skills, receive generous financial support and network with professionals in the Electronics sector.



# 91%

**SAY THE COURSE IS  
INTELLECTUALLY  
STIMULATING**

*(National Student Survey, 2020)*

# 100%

**RIGHT OPPORTUNITIES  
TO WORK WITH  
OTHER STUDENTS**

*(National Student Survey, 2020)*

# Student Life

In Electronic Engineering there is a real sense of camaraderie between staff and students. Add to this our equality ethos and an inclusive environment, and the department attracts a greater than average proportion of female students.

Royal Holloway has a vibrant social scene and a friendly campus environment. As well as the activities organised by our dynamic Students' Union, there are departmental social societies run by students. These bring students together through a mixture of social and academic events, ranging from pub quizzes and trips to guest lectures and career talks.

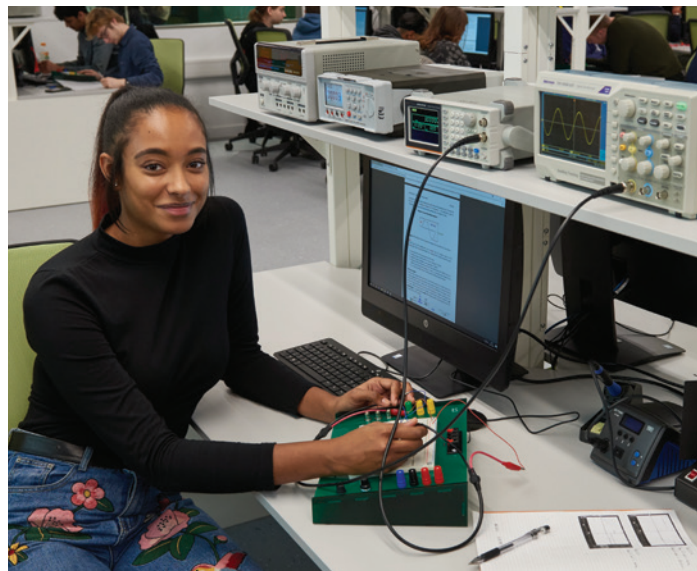
## Our community

As Royal Holloway's youngest department, Electronic Engineering has formed a thriving community of staff, undergraduate and postgraduate students.

The department is based in the Beatrice Shilling Building, a purpose-built building on three floors, right at the heart of our university campus. A £20 million worth of investment has provided state-of-the-art equipment, and each floor has a different function in relation to the activities that are carried out on it, giving project-led activities their own space that is separated from other forms of teaching, research and staff offices. Engaging group collaborative working spaces are a core design focus throughout the building and access is 24/7 to cater for all working schedules.

The roof has a field laboratory where solar panels and a wind turbine are situated on which measurements can be made to explore the efficiency of these energy generation devices under different weather conditions.

This technology-led facility is designed to inspire students and staff, to develop a creative approach to study, learning and research, and extend our vision for the future.



"I have enjoyed the new facilities here, and the course is well balanced with practical work, supported by useful and interesting theory. My favourite aspect is the group work. Teamwork is integral to engineering, we collaborate to solve problems and create projects. This makes the challenges we are presented with conquerable and allows us to develop our individual strengths."

**Jasmine, BEng, Electronic Engineering**

# Your future career

There are a wealth of career opportunities available to you, once you graduate with an Electronic Engineering degree.

Employers are looking for graduates with up-to-date knowledge, excellent written and verbal communication skills, experience of group working, practical backgrounds in applying ingenuity and developing inventive scientific principles to solve problems.

As a graduate you will take with you the theoretical and creative practical skills that tomorrow's electronic engineers need to embark on a fulfilling career creating technical solutions for an evolving world. These skills will be underpinned with confident practiced verbal and written communication abilities that are key to successful industrial team working.



"My time at Royal Holloway has helped my career because it developed the problem-solving skills which allow me to adapt to almost any technical role. Engineering, as a subject, covers a lot more than people think it does and it's a brilliant, interesting career path to choose. Without engineers, we wouldn't have roads to

drive on, houses to live in and pictures of Pluto to marvel over."

**Charlotte**, *Systems Engineer for Missile Systems at MBDA*

- Through close connections with our Industrial Advisory Board, we ensure that our curriculum and the skills and knowledge you will gain are industrially relevant.
- Career prospects are excellent for electronic engineers with attractive starting salaries. We provide opportunities for you to develop transferable skills and prepare yourself effectively for graduate jobs, with dedicated support from the university's Careers and Employability Service.
- Apart from career roles in electronic engineering, many engineering graduates join the banking sector, enter into science and mathematics teaching, or go on to research after studying for specialist MSc degrees or following a PhD.

Addressing the  
**20,000**  
annual shortfall  
of Engineering  
graduates

*(Engineering UK Report, 2017)*

This brochure was produced in May 2021 and information was correct at that time. Please make sure you check our website or contact us directly for the very latest information if you are considering an application.



## **Royal Holloway, University of London**

- Learn from world leading experts
- Highly ranked for student satisfaction
- Beautiful campus in a safe location
- Vibrant and active community
- Award-winning careers service

### **Visit us to find out more**

Our Open Days are a great way to get a feel for life at Royal Holloway. Look around the campus, meet our students and staff, and find out more about studying and living here.

Find out more and register to attend at [\*\*Royalholloway.ac.uk/opendays\*\*](https://royalholloway.ac.uk/opendays)