

Electronic, Electrical and Computer Engineering MRes

Postgraduate combined research and teaching degree programme in Electronic, Electrical and Computer Engineering MRes:

This one-year EPSRC-sponsored programme is primarily intended for candidates who wish to pursue a career in research, and provides training in research skills appropriate for both industrial and academic careers.

This course is available as a full time (one year) or part time (two year) option.

[Study here and find out why the University of Birmingham has been awarded The Times and The Sunday Times University of the Year 2013-14 \(http://www.birmingham.ac.uk/news/latest/2013/09/20-sep-Birmingham-announced-as-University-of-the-Year.aspx\)](http://www.birmingham.ac.uk/news/latest/2013/09/20-sep-Birmingham-announced-as-University-of-the-Year.aspx)

Course fact file

Type of Course: Combined research and taught

Study Options: Full time, part time

Duration: 1 year full-time, 2 years part time

Start date: September

Related courses

[Postgraduate degree courses - Electronic, Electrical and Computer Engineering \(/schools/eece/postgraduate/index.aspx\)](/schools/eece/postgraduate/index.aspx)

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[School of Electronic, Electrical and Computer Engineering \(/schools/eece/index.aspx\)](/schools/eece/index.aspx)

Details

This one-year EPSRC-sponsored programme is primarily intended for candidates who wish to pursue a career in research, and provides training in research skills appropriate for both industrial and academic careers.

One-third of your time is spent on coursework and professional and research skills. The remaining time is devoted to a research project.

Related links

- **[Postgraduate degree courses - Electronic, Electrical and Computer Engineering \(/schools/eece/postgraduate/index.aspx\)](/schools/eece/postgraduate/index.aspx)**
- **[Electronic, Electrical and Computer Engineering Research \(/research/activity/eece/index.aspx\)](/research/activity/eece/index.aspx)**
- **[Electronic, Electrical and Computer Engineering MSc and MRes brochure \(PDF 3.7MB\) \(/Documents/college-eps/eece/brochures/eece-msc-mres-brochure.pdf\)](/Documents/college-eps/eece/brochures/eece-msc-mres-brochure.pdf)**

Why study this course

This programme is designed to equip a student with the knowledge and skills needed to play a leading role in the research and development of systems and technologies that are vital to the growth of the global economy, reducing costs, improving quality, providing more sophisticated services and improving social well being.

Students will have access to world-class research facilities within the School of Electronic, Electrical and Computer Engineering. The School was awarded 24 points out of 24 points in the last Teaching Quality Assessment, and has research contract funding of around £4 million pounds per year. The latest government audit for research quality showed that 85% of the School's research was judged to be of international standing and 60% internationally leading.

Birmingham is a university rich in high calibre research, with academic staff who are global experts in their field. When taking a taught programme you will be taught by people whose work advances the boundaries of knowledge.

The research in the School leads in the field in many emerging disciplines of the 21st century. The School has a clear vision for the future, and a strong commitment to interdisciplinary research, that challenges conventional thinking.

Modules

The MRes course consists of 180 credits. 60 of these credits are from taught modules and the remaining 120 is by a comprehensive research project. The list shows the modules available, and the student is expected to choose appropriate modules to make up 60 credits. The modules chosen are usually aligned with the topic of the project.

The **[School's website \(/schools/eece/index.aspx\)](/schools/eece/index.aspx)** has a large section on research, and prospective students are invited to look at this for topics for the project. Although this website shows many research topics in the School, MRes projects are not limited to these areas.

Course outline

Compulsory Module	Credits	Semester
Individual Project	120	1
<hr/>		
Option Modules	Credits	Semester
Select Modules to a total of 60 credits		
Digital Communications	20 or 30	1
<hr/>		
Advanced Digital Design	20 or 30	1
<hr/>		
Multimodal Interaction	20 or 30	1
<hr/>		
Medical Information Systems	10	1
<hr/>		
Intelligent Systems	10	1
<hr/>		
Diffusion and Deployment of Technology	10	1
<hr/>		
Electrical Energy Conversion Systems	10	1
<hr/>		
Antennas and Electromagnetics	10 or 20	2
<hr/>		
Small Embedded Systems	20	2
<hr/>		
Computer and Communications Networks	10 or 20	2
<hr/>		
User Models and Models of Human Performance	20	2
<hr/>		
Digital Signal Processing	20	2
<hr/>		
Satellite and Cellular Radio Systems	10 or 20	2
<hr/>		
Optical Communications	10 or 20	2
<hr/>		
Radiowave Propagation	10 or 20	2
<hr/>		
Radio Frequency Sensors and Systems	10 or 20	2
<hr/>		
Radio Frequency and Microwave Engineering	10 or 20	2
<hr/>		
Advanced Interact. 3D Design for Virtual Env. and 3D Serious Games	20	2

Note: When there are two entries to the credits then either can be chosen. The lower credit value usually indicates that the module assignment is not done.

Fees and funding

Tuition fees for home/EU students (2013/2014)

Research programmes (including Masters by research) **£3925***

*Research fees are yet to be confirmed by Research Councils UK, and may change.

Part-time programmes

Most part-time programmes run for two years and their fees are one half of the standard full-time programme fees.

Tuition fees for international students (2013/2014)

International student tuition fees are set at **£15680**.

For further information please view the **fees for international students (<http://www.birmingham.ac.uk/international/students/finance/fees.aspx>)** page.

Part-time programmes

UK student visa regulations mean that students classed as overseas for fees purposes may normally only register on a full-time basis.

Most part-time programmes run for two years and their fees are one half of the standard full-time programme fees.

Standard fees ([/postgraduate/requirements-pgt/international/index.aspx](#)) apply

Learn more about **fees and funding ([/postgraduate/requirements-pgt/international/index.aspx](#))**

Scholarships and studentships

Scholarships may be available. International students can often gain funding through Commonwealth scholarships or their home government.

For further information contact the School directly or email **sfo@contacts.bham.ac.uk** (<mailto:sfo@contacts.bham.ac.uk>)

Entry requirements

The normal entry requirements are a first degree of at least good UK upper second-class Honours standard, an appropriate standard of English and adequate financial support. The requirements also allow for entry based on comparable ability, as indicated by a good UK MSc performance or a lower first degree performance plus substantial relevant experience.

Learn more about [entry requirements \(/postgraduate/requirements-pgt/index.aspx\)](/postgraduate/requirements-pgt/index.aspx)

International entry requirements

We accept a range of qualifications from different countries – learn more about [international entry requirements \(/postgraduate/requirements-pgt/international/index.aspx\)](/postgraduate/requirements-pgt/international/index.aspx)

[Standard English language requirements \(/postgraduate/requirements-pgt/international/index.aspx\)](/postgraduate/requirements-pgt/international/index.aspx) apply

How to apply

Learn more about [applying \(/postgraduate/courses/apply-pg/index.aspx\)](/postgraduate/courses/apply-pg/index.aspx)

When clicking on the Apply Now button you will be directed to an application specifically designed for the programme you wish to apply for where you will create an account with the University application system and submit your application and supporting documents online. Further information regarding how to apply online can be found on the [How to apply pages](#) (<http://www.birmingham.ac.uk/students/courses/postgraduate/apply-pg/index.aspx>)

[Apply now \(https://pga.bham.ac.uk/lpages/EPSo19.htm\)](https://pga.bham.ac.uk/lpages/EPSo19.htm)

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Related links

[Electronic, Electrical and Computer Engineering MSc and MRes brochure \(PDF 3.7MB\) \(/Documents/college-eps/eece/brochures/eece-msc-mres-brochure.pdf\)](#)

[Postgraduate degree courses - Electronic, Electrical and Computer Engineering \(/schools/eece/postgraduate/index.aspx\)](/schools/eece/postgraduate/index.aspx)

[Electronic, Electrical and Computer Engineering Research \(/research/activity/eece/index.aspx\)](/research/activity/eece/index.aspx)

Learning and teaching

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Related research

- [Electronic, Electrical and Computer Engineering Research \(/research/activity/eece/index.aspx\)](/research/activity/eece/index.aspx)

Related staff

[Professor Michael Lancaster \(/staff/profiles/eece/lancaster-michael.aspx\)](/staff/profiles/eece/lancaster-michael.aspx)

Employability

University Careers Network

Preparation for your career should be one of the first things you think about as you start university. Whether you have a clear idea of where your future aspirations lie or want to consider the broad range of opportunities available once you have a Birmingham degree, our Careers Network can help you achieve your goal.

Our unique careers guidance service is tailored to your academic subject area, offering a specialised team (in each of the five academic colleges) who can give you expert advice. Our team source exclusive work experience opportunities to help you stand out amongst the competition, with mentoring, global internships and placements available to you. Once you have a career in your sights, one-to-one support with CVs and job applications will help give you the edge.

If you make the most of the [wide range of services \(https://intranet.birmingham.ac.uk/as/employability/careers/college/eps/index.aspx\)](https://intranet.birmingham.ac.uk/as/employability/careers/college/eps/index.aspx) you will be able to develop your career from the moment you arrive.

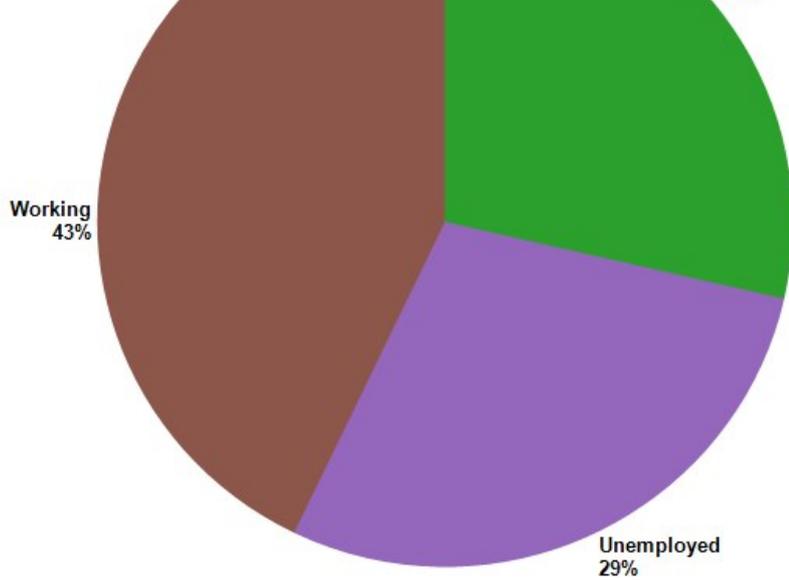
Destinations of Leavers from Higher Education (DLHE) 2011/12 (postgraduate taught graduates)

The DLHE survey is conducted 6 months after graduation.

Examples of employers

- Aero Engine Controls
- Jaguar Land Rover
- Ministry of Defence
- Price Waterhouse Coopers
- Ernst and Young

Other
29%



- Arup
- Glaxo SmithKline
- NHS
- Talk Talk
- Autologic

Examples of occupations

- Electronic Engineer
- Applications Engineer
- Communications (Electronic) Engineer - Officer
- Optimisation Consultant
- Manufacturing Engineer
- Junior Business Analyst
- Test Engineer
- Service Specialist
- IT Analyst
- Development Engineer

Further study - examples of courses

- MSc Project Management

- MSc Radio Frequency and Microwave Engineering
- MSc Electronic and Computer Engineering
- MSc Physics and Technology
- Postgraduate Certificate in Education - teaching
- AAT accountancy

Visit the **Careers section of the University website** (<https://intranet.birmingham.ac.uk/as/employability/careers/college/eps.aspx>) for further information.