UNIVERSITY OF BIRMINGHAM

College of Engineering and Physical Sciences

What do Birmingham postgraduates do?

School of Electronic, Electrical and Systems Engineering

First destinations of postgraduates

- Analysis of first employment destinations for the College of Engineering and Physical Sciences
- Employability data for Electronic, Electrical and Systems Engineering postgraduates, 2009–13
- Illustration of the range of occupations undertaken by our postgraduates

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Foreword

I AM DELIGHTED TO INTRODUCE **'WHAT DO BIRMINGHAM POSTGRADUATES DO?'** WHICH LOOKS IN DETAIL AT THE FIRST DESTINATIONS OF OUR ELECTRONIC, ELECTRICAL AND SYSTEMS ENGINEERING POSTGRADUATES AND AT EMPLOYMENT PROSPECTS FOR ALL POSTGRADUATES WITHIN THE WIDER COLLEGE OF ENGINEERING AND PHYSICAL SCIENCES.

In addition to providing accessible information on employment destinations, this publication is also designed to give an insight into the kinds of employment sectors and jobs for which a postgraduate degree at Birmingham can prepare you.

Pursuing a postgraduate degree offers you the opportunity to explore your chosen area of interest in depth, as well as developing your knowledge and understanding in a subject area about which you are truly passionate. Beyond the transferable skills that you will take with you into the workplace, your postgraduate qualification will give you the chance to engage in critical enquiry, to grow as a scholar and even to become an expert in your field.

Here, we show you how your postgraduate qualification can help you make that knowledge and expertise work for you after graduation. For the school that is most relevant to you in the College (Chemical Engineering; Chemistry; Civil Engineering; Computer Science; Electrical, Electronic and Systems Engineering; Mathematics; Mechanical Engineering; Metallurgy and Materials; or Physics and Astronomy) you will see a snapshot of the achievements of our postgraduates six months after graduation. All data is taken from the results of a 'Destinations of Leavers' survey issued to our postgraduates after this time.

You will be able to see, by school, how many of the postgraduates who replied to this survey successfully entered employment and/or further study within just six months, along with a range of the diverse and exciting career opportunities that will be open to you after studying for a postgraduate degree in the College of Engineering and Physical Sciences.

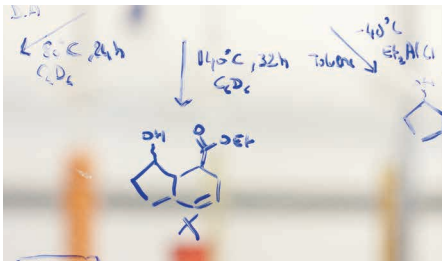
Accompanying the data are case studies in which recent postgraduate alumni share their experiences of postgraduate study at Birmingham. Here, our alumni talk about the value inherent in postgraduate study, the knowledge and skills they developed during their degrees and where their qualifications have taken them since graduation.

I hope you find the information presented here useful and our alumni stories inspiring. We very much look forward to welcoming you to our campus soon.

Professor Mark Sterling
Director of Postgraduate Programmes
College of Engineering and Physical Sciences

'We value postgraduate research because it equips students with the problem solving skills and domain expertise to understand our customers and to create innovative solutions to their most complex technical challenges. Over half of our employees have PhDs.'

Neil Barrett, Recruitment and HR Executive, Tessella (international analytics, software services and consulting).



College of Engineering and Physical Sciences

Employability

The College of Engineering and Physical Sciences is at the leading edge of modern science and engineering, transforming our understanding of the world to make life easier, healthier and more sustainable.

The College covers a broad range of world-leading research, from developing micro-engines to particle physics research at CERN. With a century of excellence in research and teaching, the College offers exciting initiatives in new fields of study and spearheads activities in strategically important STEM subjects – Science, Technology, Engineering and Mathematics.

The College of Engineering and Physical Sciences plays a significant role in creating new knowledge, training new generations of engineers and scientists, and interfacing with industry.

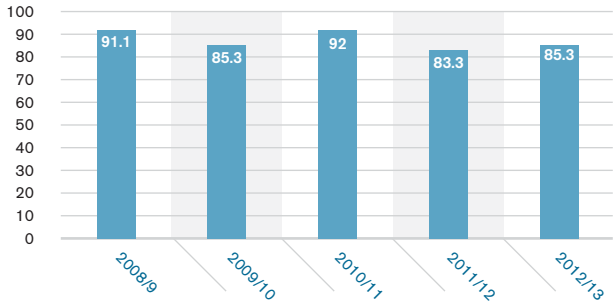
The College consists of the following nine schools:

- Chemical Engineering
- Chemistry
- Civil Engineering
- Computer Science
- Electronic, Electrical and Systems Engineering
- Mathematics
- Mechanical Engineering
- Metallurgy and Materials
- Physics and Astronomy

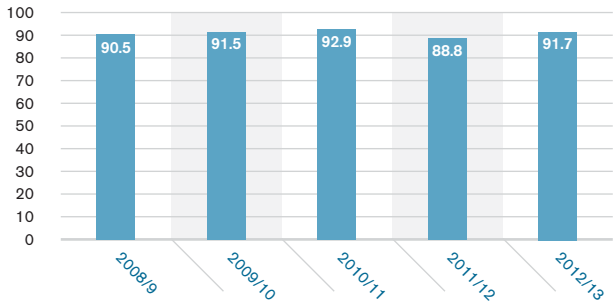
Over the last five years, 90.9% of taught postgraduates and 92.5% of research postgraduates from the College of Engineering and Physical Sciences have been in work and/or further study just six months after graduating.

The two charts to the right show the breakdown of these statistics for each year, for taught postgraduate and research postgraduate respondents.

Percentage of Engineering and Physical Sciences taught postgraduate respondents in work and/or further study six months after graduation



Percentage of Engineering and Physical Sciences research postgraduate respondents in work and/or further study six months after graduation



SOURCE: *Destinations of Leavers from Higher Education Institutions*, Higher Education Statistics Agency, 2009–13

'In EESE at Birmingham everyone was so friendly, supportive and knowledgeable, and the campus has a special feeling, a buzz. Everyone is helpful and supportive; the University really looks after its students. Hanging out in Staff House after a day's work, you meet a lot of interesting and varied people; I came away from Birmingham with some truly great friends. The University is one of the best places in the world for great research as far as I'm concerned. It's a completely academic environment where people love their work.

'In my current role I really enjoy my research, advancing my own as well as collective knowledge. I have been head hunted twice by professors and this led to my promotion to my current job. My PhD from Birmingham was the only reason I was head hunted. My advice to prospective doctoral researchers is to go for it! You couldn't ask for a better environment in which to begin a research career; nowhere I have seen since compares to Birmingham.'

Sean McMitchell, PhD Electronic, Electrical and Computer Engineering, graduated 2008
Sean is now a Research Fellow at the University of Warwick (with an honorary fellowship at the University of Birmingham).

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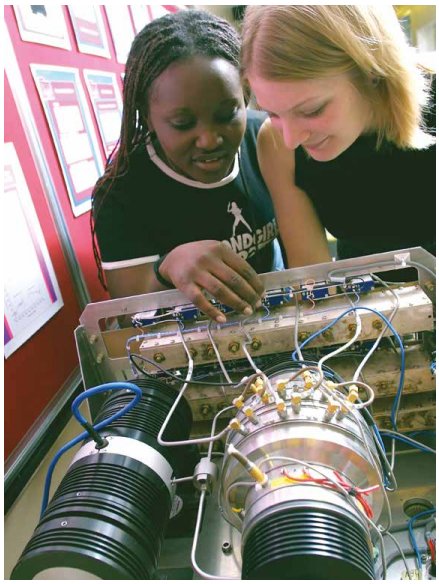


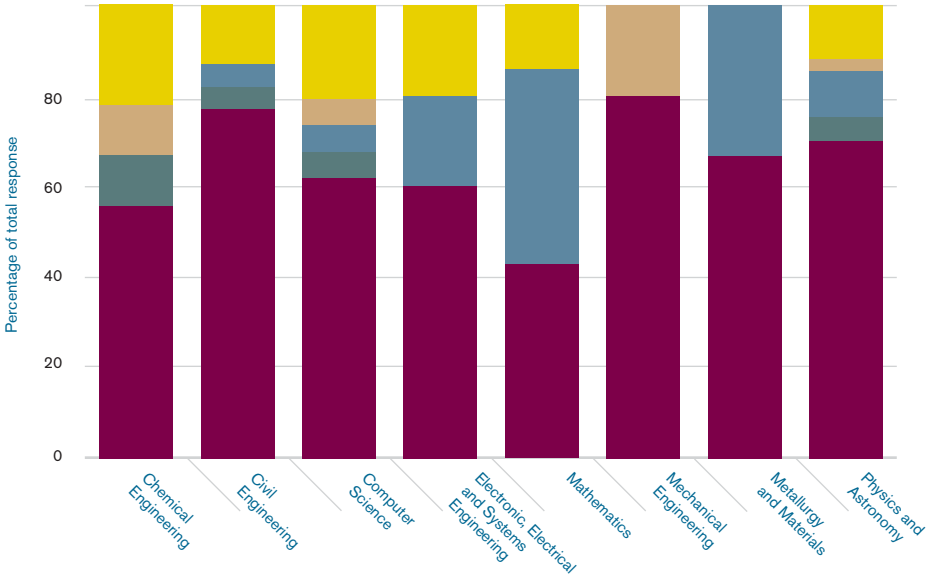
College of Engineering and Physical Sciences

Postgraduate destinations

Taught postgraduate destinations

The chart to the right summarises the destinations of Engineering and Physical Sciences taught postgraduates from the 2012/13 academic year, six months after graduation:

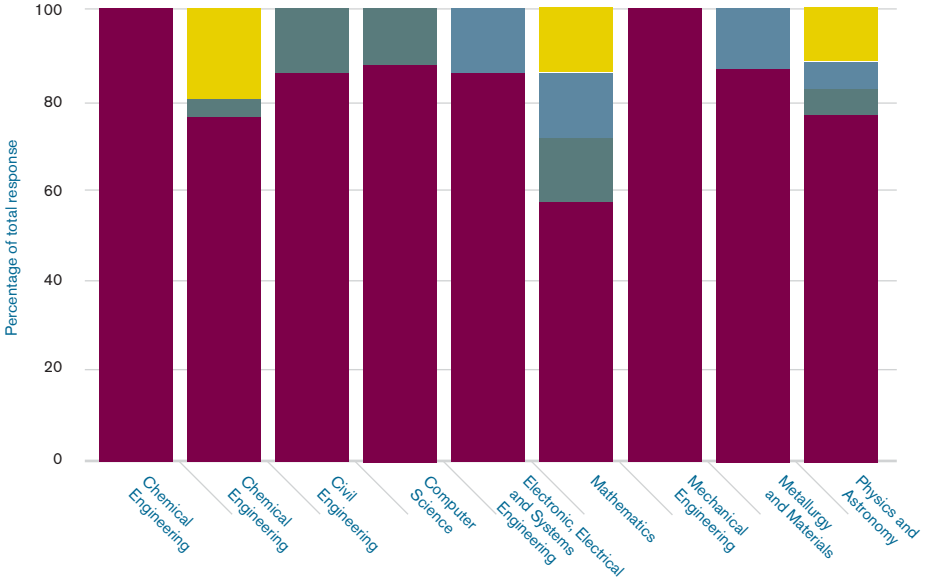
- Working
- Working and studying
- Studying
- Other
- Unemployed



Research postgraduate destinations

The chart to the right summarises the destinations of Engineering and Physical Sciences research postgraduates from the 2012/13 academic year, six months after graduation:

- Working
- Working and studying
- Studying
- Unemployed



SOURCE: *Destinations of Leavers from Higher Education Institutions*, Higher Education Statistics Agency, 2009–13

School of Electronic, Electrical and Systems Engineering

EMPLOYABILITY

In the School of Electronic, Electrical and Systems Engineering (EESE), our strong collaborative relationships with industry ensure that research projects are industrially relevant, preparing our postgraduates for high-ranking positions in their chosen career.

Highlights

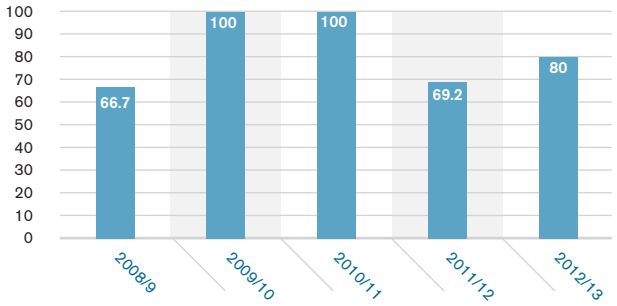
Over the past five years:

- 83.2% of taught postgraduate respondents were in work or further study six months after graduation
- 95.3% of research postgraduate respondents had successfully found work or further study six months after graduating

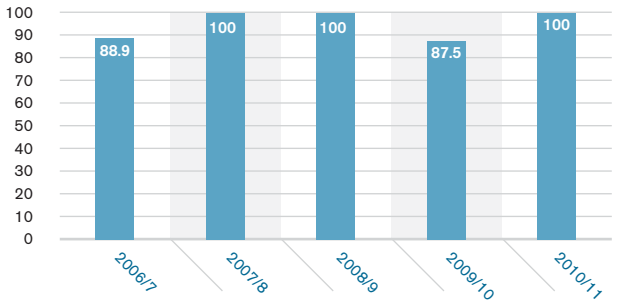
Many of Birmingham's Electronic, Electrical and Systems Engineering postgraduates pursue careers related to the subject in various sections of the engineering industry. Postgraduate study is therefore increasingly common in this subject area, allowing graduates to specialise after their undergraduate degree. The majority of our postgraduates then go on to work for a wide variety of companies, including IT, web development, electronics, transport, energy and telecommunications companies; consultancies; banks; and local government and government-supported scientific establishments. A number of our postgraduates also progress to their own academic careers in teaching and research.

The two charts to the right show results from 'Destinations of Leavers' surveys for our Electronic, Electrical and Systems Engineering postgraduates over the past five years.

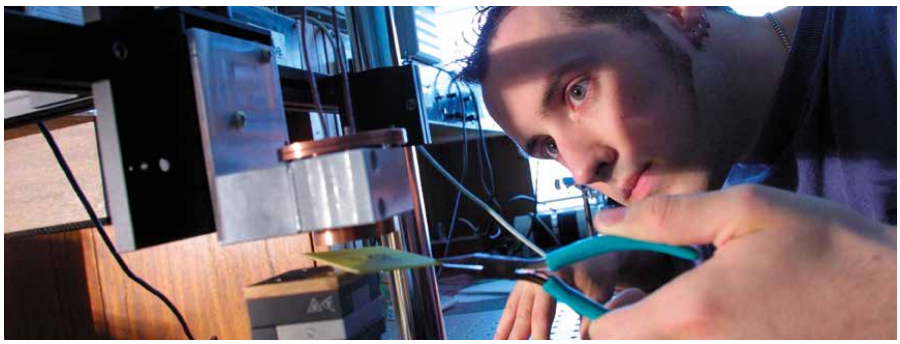
Percentage of taught postgraduate respondents in work and/or further study six months after graduation



Percentage of research postgraduate respondents in work and/or further study six months after graduation



SOURCE: *Destinations of Leavers from Higher Education Institutions*, Higher Education Statistics Agency, 2009–13



'My interest in digital electronics started when I was at high school. I studied computer hardware engineering at undergraduate level and worked for five years as a hardware design engineer in industry. In 2008 I began studying for an MSc in Embedded Systems at the University of Birmingham. This was one of the most significant steps in my academic career and life. Now I know how to design and implement embedded systems using DSP devices, microcontrollers and high speed FPGAs. I am currently studying for a PhD in condition monitoring systems, fault detection and digital signal processing at the University. The extensive study and research facilities at Birmingham make studying most enjoyable.'

Mani Entezami, MSc Embedded Systems, graduated 2009

Mani is currently studying for a PhD in condition monitoring systems, fault detection and digital signal processing at the University of Birmingham.

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School of Electronic, Electrical and Systems Engineering

RANGE OF OCCUPATIONS

Below is an overview of the kinds of employment sectors, organisations and professions that recent Electronic, Electrical and Systems Engineering postgraduates have entered, based on responses to 'Destinations of Leavers' surveys conducted six months after graduation.

Range of employment sectors

- Aerospace industry
- Computer consultancy activities
- Engineering and related technical consultancy
- Higher education
- Manufacture of computer, electronic and optical products
- Research and experimental development in natural sciences and engineering
- Transmission of electricity
- Technical testing and analysis

Range of employers

- Aero Engine Controls
- Alstom
- Fujitsu
- National Grid
- QinetiQ
- Renishaw PLC
- Sichuan Electric Power Research Institute, China
- University of Birmingham
- University of Liverpool

Range of occupations

- Asset Engineer
- Assistant Design Engineer
- Electrical Engineer
- Engineer Network Manager
- Lecturer
- Radio Frequency Engineer
- Software Engineer
- Teaching Fellow
- Telecom Engineer
- Web Developer

'I decided to do my MSc at the University of Birmingham after obtaining a degree in Electronic Engineering and working for two years in Colombia. This enabled me to improve my English and learn more about a topic that fascinated me. Adapting to a new culture was not always easy; however, I quickly found my niche within the University's international community. The course was both challenging and interesting and gave me an edge over other candidates at interview. It opened doors to the large global leaders in the telecoms industry and was the perfect stepping stone to start a successful career. Since completing my MSc, I have been working in product development and technical support for global telecoms companies such as Nortel and IBM.'

Luisa Zuluaga-Gomez, MSc Communications Engineering
Luisa is currently working for 3com as a Technical Support Engineer.

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