

UNIVERSITY OF
Southampton

BUILDING A
BETTER FUTURE
THROUGH
RESEARCH

ENGINEERING

POSTGRADUATE RESEARCH COURSES 2020

FOUNDING
MEMBER OF THE
**RUSSELL
GROUP**



CHOOSE SOUTHAMPTON



Top 100

global university*



Top 20

UK university**



Top 10

in the UK for
research intensity***



We have a **world-leading reputation** for excellence in teaching and research in the field of engineering



1st

for research
power in General
Engineering***



**World-class
facilities,**

including the largest
university wind
tunnel in the UK

* QS World University Rankings, 2020 ** Complete University Guide, 2020 *** Latest REF, 2014

“The Southampton University Driving Simulator (SUDS) has enabled me to test how drivers respond to different driving interfaces to learn how those interfaces can be optimised for the next step in driverless technology. Having access to this facility allows me to pursue the questions for my project that would otherwise go unanswered, and to conduct valuable research that will stay with me throughout my career.”

Jediah Clark (left)

PhD Human Factors Engineering, third year



RESEARCH EXCELLENCE

We offer our research students the opportunity to become experts in their chosen field of research while working alongside internationally-respected academics on significant, challenging and exciting engineering projects in Mechanical Engineering, Maritime Engineering, Civil Engineering, Aeronautics and Astronautics, Acoustical Engineering, Biomedical Engineering, Energy, and Transportation.

You will conduct your research in world-leading experimental facilities, and sometimes with industrial research partners. Our state-of-the-art facilities include the new National Infrastructure Laboratory (NIL), our 138m towing tank, the largest university towing tank in the UK, and the R.J. Mitchell Wind Tunnel.

We have research expertise in:

- Integrated and sustainable cities
- Leading healthcare and medicine
- Manufacturing and materials of the future
- Robotics and autonomous systems
- Space and satellite technologies
- Bioscience and biotechnology
- New energy technologies
- Transformative digital technologies



We work with some of the world's largest utility companies to generate renewable bioenergy and recover resources from waste

The R.J. Mitchell Wind Tunnel has been used by Formula 1, America's Cup yacht teams and Olympic teams

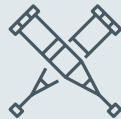


Our researchers are working with clinicians, academics and policymakers in Cambodia to develop digital tools to improve access to prosthetic and orthotic services



91%

of research activity is rated as internationally excellent or of world-leading quality*



Our engineering sensor innovations are helping to improve healthcare of amputees



¹ National Infrastructure Laboratory

² Students using the R.J. Mitchell Wind Tunnel

* In General Engineering in the latest REF, 2014

RESEARCH PROGRAMMES

Key facts

Unless otherwise stated

Entry requirements: a UK bachelors degree with upper second-class honours or higher in a relevant subject. See international equivalent qualifications www.southampton.ac.uk/pg/entry

English language: band C, IELTS 6.5 overall, with a minimum of 6.0 in all components. For more information, visit www.southampton.ac.uk/pg/el

Assessment: PhD and MPhil: annual reports, thesis and viva voce. MRes and EngD: Please see individual course information.

Duration: Please see individual course information

Start date: MRes and EngD: September. MPhil and PhD: September, February, May and July.

Applying: University application form with transcripts, certificates, references and English language qualification (if applicable); interview for shortlisted applicants

Fees and funding: visit www.southampton.ac.uk/pg/enginef

The scope of engineering at Southampton is far reaching, from improving our travel networks to keep Britain moving to helping the profoundly deaf to hear. We offer PhD and other research opportunities for students looking to changing the world for the better.

PhD

Working alongside our world-class team of researchers, you will acquire the grounding needed to become a successful researcher and help pioneer solutions to some of the key challenges facing society and industry.

You will be given comprehensive skills training, including research methodology and specialist knowledge, taking relevant technical modules from our MEng and MSc programmes.

Research projects cover a broad range of topics and are based in our internationally-renowned research groups. All researchers will have a University supervisory team to guide the work. Projects are often sponsored by industrial collaborators and offer you the opportunity to develop into a world-class researcher.

Key facts:

Additional information

Assessment: progression reports, thesis, viva voce examination

Duration: up to four years (full time), up to seven years (part time)

Funding: University studentships, grant awards or self-funded

PhD Research Projects:

We are looking for dynamic engineers to help generate engineering solutions to real-world problems. We have over 20 research groups working on a wide variety of projects.

Current PhD research themes include:

- Bioscience and biotechnology
- Integrated and sustainable cities
- Leading-edge healthcare and medicine
- Manufacturing and materials of the future
- New energy technologies
- Robotics and autonomous systems
- Space and satellite technologies
- Transformative digital technologies

For a full list of the PhD projects available within our research groups visit: www.southampton.ac.uk/engineering/research/projects.



Find out more:

www.southampton.ac.uk/pgengresearch

Or to have specific questions answered:

T: +44 (0)23 8059 3782

E: feps-pgr-apply@southampton.ac.uk

Engineering Doctorate (EngD)

Our course will provide you with the technical, business and personal skills to help you fulfil your ambitions to become a senior manager of the future. Company sponsorship is a feature of the course and you will benefit from an industrial supervisor as well as a University supervisory team.

The EngD combines doctoral-level research with taught modules and transferable management and leadership skills training. Research projects cover a broad range of topics and are based in our internationally-renowned research groups.

Programme structure

Year one is University-based, involving taught courses in technical areas related to your research and in professional and research skills. In years two to four you will carry out full-time applied research, with the opportunity to gain valuable experience of industry and commerce through periods of placement with your sponsor, and further opportunities for management and leadership training.

Key facts:

Additional information

Assessment: coursework, examination, presentation, thesis, annual reports and viva voce

Duration: up to five years (full time)

Funding: company-sponsored studentships

MPhil

Our MPhil is an award of considerable distinction in its own right and is awarded for the successful completion of a substantial element of research or equivalent enquiry. The MPhil differs from the PhD in terms of the scope of study required and the extent of the original personal contribution to knowledge.

Key facts:

Additional information

Duration: two/three years (full time); three/four years (part time)

Funding: self-funded

Master of Research (MRes)

Our programme helps you develop the skills you will need to pursue a career in research. You will take a combination of taught technical modules and skills courses to support your research work and to broaden your knowledge in your chosen field. The MRes can be conducted in any of our research groups.

Key facts:

Additional information

Assessment: examinations, coursework, thesis and viva voce*

Duration: one year (full time); two years (part time)

Funding: self funded

“Bioengineering combines principles of applied physics and medicine to generate engineering solutions to solve medical problems. I love the idea that you can design and create innovative healthcare equipment to change peoples’ lives.

The university offers numerous state-of-the-art and advanced facilities, and these are helping me to achieve my research goals.”

Elisabetta Bottaro

PhD in Bioengineering, third year

GLOBAL IMPACT

With world-renowned academics and strong industry links, engineering at Southampton offers students a vibrant and multidisciplinary research community where they can push the boundaries of engineering and shape the world we know today.

Our pioneering research is focussed on creating innovative solutions to real-life problems facing societies across the globe, and our research areas span across the breadth of engineering, from Mechanical Engineering to Civil Engineering, and Aerospace to Transportation.

WE ARE:



Transforming lives, from contributing to the development of hip replacement products, to improving the performance of cochlear implants

Part of the Science and Engineering Consortium, the most powerful cluster of research-intensive universities in the UK

Informing drone technology, wingsuit innovation, assessing the risk of space debris, and much more

Working with major players in the aerospace industry to produce more fuel efficient, longer lasting engines and aircraft at reduced cost



Investigating ways of improving how we get around our cities and exploring how to cut congestion on motorways and major trunk roads

Helping to expand rail networks in Europe and Australia through our research into reducing railway noise via rail dampers

“In my research, I needed to think about how clean transport and clean power system can be optimally coordinated, as global warming and air pollution are the main global issues we urgently need to deal with. My PhD in this area has provided a potential solution for the world’s decarbonisation, which could actually help a little bit towards a better world.”

Dr Lu Wang

PhD Engineering, 2017

HOW DO I APPLY?

Before applying for postgraduate taught study, you should:

- check you meet the entry requirements
- if applicable, ensure that you meet any special requirements for international students
- identify how you will fund your postgraduate study
- obtain supporting documentation to include as part of your application

APPLY NOW

Apply to Southampton for postgraduate research degrees and for more information on PhD opportunities



Find out more:

www.southampton.ac.uk/pg



Find out more:

[www.southampton.ac.uk/
pgengresearch](http://www.southampton.ac.uk/pgengresearch)

UK enquiries:

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+44 (0)23 8059 9699

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