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QUEEN'S UNIVERSITY BELFAST

FACULTY OF
ENGINEERING
AND PHYSICAL
SCIENCES

QUEEN'S UNIVERSITY BELFAST

MSc ELECTRONICS

DEFINING FUTURE TECHNOLOGIES

Develop new solutions in renewable energy, nano-electronics, digital and wireless communications, and embedded software technologies.

INNOVATIVE TEACHING

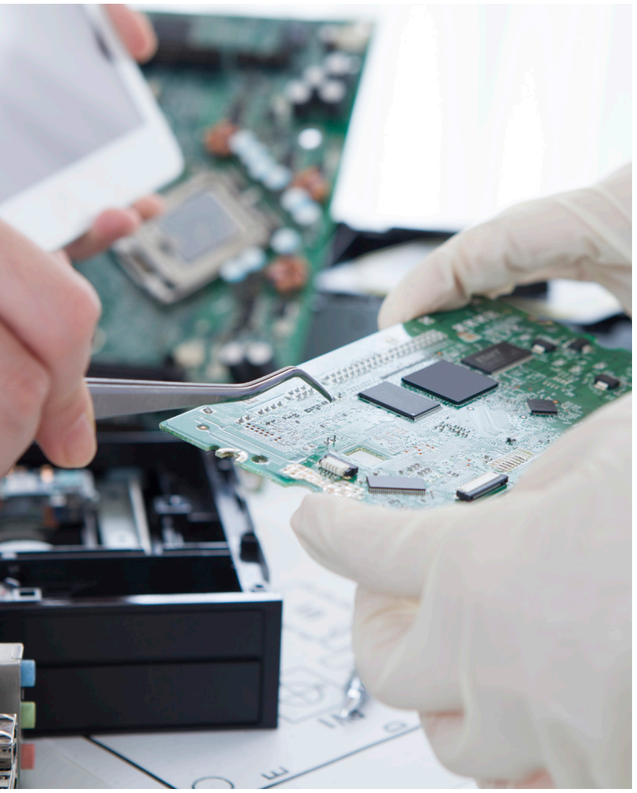
Blended learning to enhance your educational experience.

APPLY YOUR SKILLS

Engage with employers with our professional internship opportunity for up to 12 months.

SHAPING A BETTER WORLD
SINCE 1845

MSc **ELECTRONICS**



Course Content

The programme provides a balanced route to learning through academic study and practical engagement in work-based projects supported by industry partners.

In the first and second semesters, you will study 6 modules full-time which include opportunities for blended and collaborative learning. In the third semester you will undertake a significant research project perhaps sponsored by industry.

There is also the option of a one-year professional internship with a range of top industrial companies – this is a fully paid placement and provides an excellent opportunity to develop your practical and leadership skills on real technology projects.

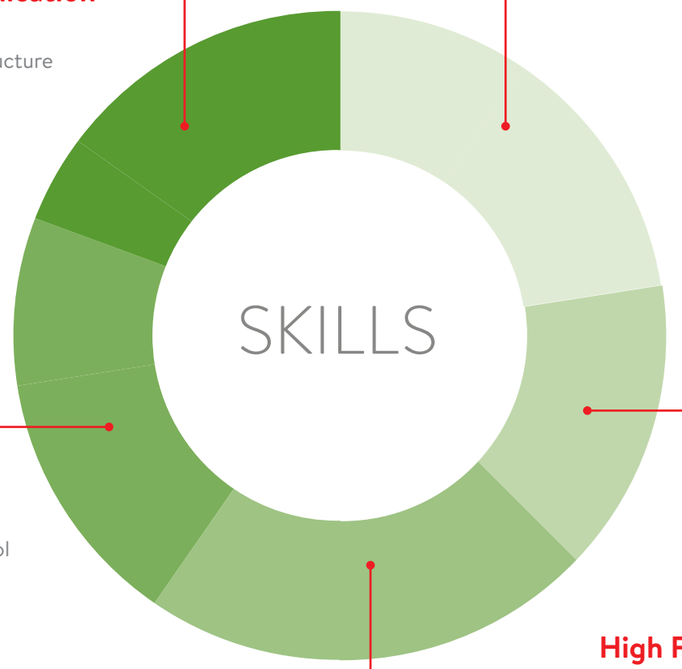
The Environment

The programme is delivered in state-of-the-art facilities supported by excellent access to digital networks and learning resources and extensive use of well-equipped laboratories. You will be assigned a personal tutor to provide pastoral and academic care throughout the entire programme.

You will be taught in classes of around 30 alongside fellow students from places such as India, China, Malaysia, Europe, Indonesia and Africa.

You'll have access to international laboratories including the ECIT (Electronics, Communications and Information Technology) and CSIT (Computer Security and Information Technology) facilities as well as being part of an all-Ireland Sustainable Energy Hub.

CAREER OUTCOME



Digital Signal Processing
Spectral analysis

Wireless Communication Systems
Communication infrastructure
Design solutions

Smart Grids
Telecom design
Measurement and control

Sustainable Energy Systems
Forecasting future demand
Economics and environmental impact
Active network management
Protection

High Frequency Communication Design
Intelligent systems

Course Director
Dr Amy Liu

Who will be teaching you?

For each of the modules the course tutors are active researchers each with an international reputation in specialist areas.

Dr Amy Liu is a leading expert in smart grid data analytics for future energy systems, working closely with industry solving challenging problems in clean energy domain.

David McNeill is an international specialist in nano-electronic technology.

Who are you?

You will be technical, innovative and creative, and interested in designing new solutions to problems using the latest developments in technology

You could be:

- A recent graduate in a relevant subject.
- Already working in industry, looking to upskill, enhance your professional career, or develop your role as a leader and innovator.
- An international student interested in studying an accredited UK Master's degree and undertaking a paid professional internship.

What will excite you?

This is an exciting field of rapid developments in many smart technologies (e.g. mobile phone, tablet computing, wearable computers), and also

- sustainable and renewable energy (e.g. wind and photovoltaics)
- nano-electronics (impacting developments in embedded medicine and implants)
- digital and wireless communications.

Where could you be in five years?

You could be enabling trade and communication links through traditional telephone or mobile infrastructure.
You could be at the forefront of new technology like WhatsApp, Snapchat, reshaping our social and communication trends.
You could be a programme leader or a product champion at companies such as British Aerospace (BAe), Analog Devices, Texas Instruments, Apple, Microsoft, Bombardier and National Grid.

Perks and Accreditation

MSc Electronics is fully accredited by the Institution of Engineering and Technology and provides an accelerated route for chartered registration (CEng) normally within 3 years of graduation.

The IET supports lifelong learning and professional development through CPD online digital learning and access to the IET Academy.

To discuss the course in more detail or if you have any questions contact:

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FIND OUT MORE ABOUT THE COURSE:
http://go.qub.ac.uk/electronics