MEng Electronic and Computer Engineering (H639)
MEng Electronic and Computer Engineering with a year in industry (H638)

Computers are all-pervasive. Almost every aspect of daily life from shopping in a supermarket or on-line, to driving a car or flying abroad depends on highly sophisticated computing systems. The challenges in designing and delivering effective, safe and cost-effective systems require a complex integration of application knowledge, software and electronics, interfaced to a rapidly-changing world. With continuing advances in technology, high user-expectations and increasing statutory requirements, there is a high-demand for skilled engineers in electronic computing. Unlike pure computing degrees which often concentrate on the software, scientific and mathematical aspects of computing, this programme aims to provide a wider range of engineering skills, including in hardware and applications of computing to electronic systems.

This is an exciting and technically-complex world with many opportunities for innovative thinking and creative solutions. To succeed in such an environment, graduates need to be knowledgeable, highly-skilled, professional and adept at communication and project management. Drawing on the expertise of the Intelligent Systems Research Group at York, and including individual and group projects at every stage of the degree to develop practical, organisational, management and business skills, this programme will provide you with precisely the abilities and approaches you will need to operate with confidence – as a researcher, expert designer or technical manager – in the challenging world of computer engineering.

The final year of this Masters-level programme extends the Bachelors (BEng) programme by providing an opportunity for further engagement with research staff, technology and literature. Students will manage a large-scale individual project, and extend their knowledge and experience in a variety of core and optional topic areas; together these opportunities allow you to develop the knowledge and skills required to take a leadership role in pushing forward this specialist subject area.

As with all our undergraduate degrees, the MEng Electronic and Computer Engineering is fully accredited by the Institute of Engineering and Technology, and satisfies the educational requirements for becoming a Chartered Engineer.
After completing the programme, graduates will be able to:

**Programme Learning Outcomes**

Our undergraduate programmes are based around a shared set of six Programme Learning Outcomes (PLOs). These consist of four major areas, which are developed throughout each programme:

A. **Knowledge** – understanding & processing information about the subject (PLO1)

B. **Engineering Application** – using knowledge to create and modify solutions to real-world problems (This alone consists of 3 separately identifiable Programme Learning Outcomes (PLOs): PLO2: Engineering Analysis; PLO3: Engineering Design; PLO4: Practical Skills.

C. **Communication** – explaining concepts and results to other people (PLO5)

D. **Management & Graduate Skills** – professional self and group organisation (PLO6)

**Area A: Knowledge**

Conduct research in applied electronic engineering and computing technology to advance the state of knowledge in algorithms, devices and systems.

**Area B: Engineering Application**

Extract and critically evaluate data from complex systems through analytical and computational methods and modelling.

Create innovative and optimised designs to address real-world problems involving computer hardware and software systems by synthesising ideas into engineering specifications.

Apply professional skills of programming, CAD, construction and measurement, combined with an understanding of engineering systems and components, to solve technically challenging problems.

**Area C: Communication**

Debate, defend and contextualise information in a succinct and technically accurate manner for audiences of engineers and members of the public, and to write and interpret technical documentation.

**Area D: Management & Graduate Skills**

Proficiently manage themselves, teams and complex projects in preparation for technical careers as leaders in applied computer and electronic engineering.

**Find out more**

For more details, including programme content and the application procedure, please visit our website:

www.york.ac.uk/electronics/undergraduate/courses/mtsfy

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