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 designer, operator or manager – in the challenging world of computer engineering.

As with all our undergraduate degrees, the BEng Electronic and Computer Engineering is fully accredited by the Institute of Engineering and Technology.
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 (PL06)

**After completing the programme, graduates will be able to:**

<table>
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<tr>
<th>Area A: Knowledge</th>
<th>Assess computer and electronic engineering designs by applying detailed knowledge of algorithms, devices and systems and by consulting relevant documentation and research.</th>
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<tr>
<th>Area B: Engineering Application</th>
<th>Analyse system &amp; component performance through computational methods and modelling.</th>
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<td>Create designs to address real-world problems in computer software and hardware (analogue &amp; digital) by synthesising ideas into engineering specifications.</td>
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<td>Solve technical problems through employing skills in programming, CAD, construction and measurement and by using safe laboratory techniques.</td>
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| Area C: Communication | Clearly communicate and explain computer and electronic engineering issues and practice in a technically accurate manner to a variety of audiences, verbally, in writing and using multimedia. |

| Area D: Management & Graduate Skills | Coordinate and execute complex projects in electronics and computing, with effective time management, team working, and ethical decision-making. |

**Find out more**

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

[www.york.ac.uk/electronics/undergraduate/courses/computer_engineering](http://www.york.ac.uk/electronics/undergraduate/courses/computer_engineering)

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