The focus of the course is on the design of computer systems and their real-time applications, with an emphasis on pervasive technologies, including wireless networks, mobile devices and sensors, robotics and wearable technology.

The computer systems engineer has the fundamental knowledge and skills of an electronics engineer, but with an emphasis on digital electronics, low-power systems, communications, control and real-time operation. The computer systems engineer is also able to apply state-of-the-art computer science methods for the validation and verification of algorithms, fault-tolerant design, code optimisation, and to use high-performance computing techniques to design efficient and robust embedded systems.

You will receive a firm grounding in the principles of Computer Science, which will be broadened and complemented by the experience of engineering electronic systems. In your first year you will study computer programming, data structures and algorithms as well as system modelling, and electronic devices and circuits. The second year builds on both core disciplines through the study of modules in areas such as digital systems design, advanced computer architectures, software engineering, signal processing and computer networks.

In your third year you will undertake an individual project, where you will apply your knowledge to an area of your choice under the supervision of world-leading academics from Computer Science and Engineering. You will also study embedded systems, sensor networks and mobile communications, robotics, and modern VLSI design.

If you follow the MEng course you will stay on for a fourth year to study more advanced material. You will also participate in a multidisciplinary group project, which will integrate taught material as well as helping you to improve your research and development skills in a team environment.

Regardless of whether you are admitted onto the BEng or MEng course, you have the option to transfer between the two variants until the end of your second year. You will need to achieve a 2:1 or higher in your second year in order to proceed on the MEng course.

If you are studying the 3-year variant of this course you may choose to have your degree awarded as a BEng or a BSc.

The option of spending a year in industry or studying abroad is available to all students.

**TYPICAL OFFER**

**A-level:** A*AA (MEng) /AAA (BEng)
(including an A in Mathematics)

**IB:** 38 (including 6 in Higher Level Mathematics)