Academic Profile

Professor Orla Feely
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Orla Feely received the B.E. degree in electronic engineering from University College Dublin (UCD) in 1986, and the M.S. and Ph.D. degrees in electrical engineering from the University of California, Berkeley, in 1990 and 1992. She joined UCD in 1992 and is currently a Professor and Head of Electronic Engineering in UCD School of Electrical, Electronic and Communications Engineering. Her research interests lie in the area of nonlinear dynamics of electronic circuits, and she teaches courses on the analysis and design of electronic circuits.

The Internet of Things (IoT) Engineering is a multidisciplinary bachelor degree programme. It is a mix of electronic engineering and computer science, with emphasis on Internet technologies, wireless communications, sensor devices, and cloud computing, that are key underpinning technologies necessary to run applications over the physical infrastructure of the Internet of Things.

The programme teaches you how to apply electronics and computing technologies to design, test and troubleshoot advanced electronic systems and applications. It trains you in basic circuit theory and information technology with hands-on applications and coursework moving on to increasingly complex systems, platforms and telecommunication networks.

Programme Objective
Based on a wide scope of the profession, this degree programme aims to train students to be equipped with a solid theoretical foundation, systematic professional knowledge and strong practical skills in the fields of electronics engineering, computer technology and communications networks, that underpin a wide range of applications in the Internet of Things. The programme sets out to provide you with:

- A thorough knowledge of electronic engineering and computer science
- A firm foundation of wireless communication and computer networks
- A thorough knowledge of IoT devices, systems, networks and infrastructure
- A strong skill for sensor network design and network planning for IoT

Assessment
You will be assessed using a wide variety of assessment techniques. Assessment will vary between modules. Many modules may be assessed through a combination of coursework and formal exams. Coursework may include laboratory reports, individual and group assignments, written essays and individual or group presentations.

Applications

**Application**
Applicants will be reviewed on the basis of academic achievement and personal statement. The minimum requirement is a 4-year bachelor degree (e.g. BEng or BSc) with high grades, especially in relevant areas such as electronic or computer engineering. Areas to be considered include design or programming of new generation of multimedia devices or developing new imaging techniques. Many graduates may also continue to PhD. The programme is open to all students within UCD and work with some of the world’s leading experts within this area of research.

**Career Opportunities and Prospective Employers**
With the broad range of skills you will acquire from this degree, you will have excellent career prospects in areas as diverse as circuit design, software development, mobile communications, industrial automation, system integration and related areas. With the rapid development and a wide range of applications of IoT in China, graduates from this degree will find excellent opportunities in various companies, from IoT giants, such as Baidu, Intel and Microsoft, to big network operators, such as China Mobile and China Telecom, as well as many medium and small size companies. Graduates from this degree also earn into mobile technology management in the field of IoT, such as public service management for local government.

**Further Study**
The international nature of this degree also enhances the opportunities for graduates who may want to pursue further postgraduate programmes. In UCD working opportunities exist in areas such as electronic or computer engineering. Areas to be considered might include designing new microprocessors or developing the next generation of multimedia devices or developing new imaging techniques. Many graduates may also continue to PhD. The programme is open to all students within UCD and work with some of the world’s leading experts within this area of research.