LONDON'S GLOBAL UNIVERSITY

Electronic and Electrical Engineering

Internet of Things (ELEC0130)

Description

This course is designed to provide an introduction to the Internet of Things (IoT) for postgraduate students who already have a background in electronic engineering or a related subject, an understanding of basic networking and some software (coding) experience.

The course is designed to give the students a solid grounding of the key technologies involved and how they are integrated to form complete IoT systems.

We also aim to give students an understanding of how the internet of things fits within the wider context of the ICT industry.

The course has a significant practical content in that 50% of the time will be spent on practical lab exercises, involving IoT system design and software development.

The course is broadly divided into two parts, namely development in the cloud and development at the edge.

It is assumed that students will already have a basic familiarity with coding (in any language).

For the former part (development in the cloud), the course makes use of the IBM Bluemix cloud data analytics platform and Node-RED visual tool for wiring together hardware devices.

These tools use a graphical user interface and training will be provided.

The underlying programming languages for these tools are JavaScript and HTML (though prior knowledge of these languages is not required).

For the latter part (development at the edge), familiarity with functional C/C++ programming would be useful since these languages are used to configure the sensors and edge computing platforms.

An example of a programming environment for the latter part (the edge) is Energia by Texas Instruments.

Key information

Year	2018/19
Credit value	15 (150 study hours)
Delivery	PGT L7, Campus-based
Reading List	View on UCL website
Tutor	Dr Ryan Grammenos
Term	Term 2
Timetable	View on UCL website

Assessment

Coursework: 100%

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