

# THE ENGINEERING INNOVATION CENTRE

## ENGINEERING SUMMER ACADEMY

July - August - September 2018

School of Engineering, University of Central Lancashire, Preston, PR1 2HE, UK.



### Programme 3: Intelligent Machines

**Date:** 2-15 September 2018

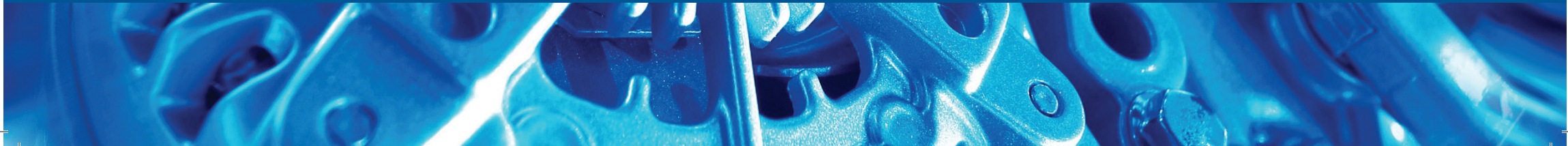
**Fee:** £1,000 including Accommodation



Summer School Programmes focus on engineering activities that allow engineering students to practice the topic area of each programme and develop their skills. All programmes include lectures, tutorials, and an engineering challenge project. This programme is a non-credit bearing activity.

**For further information and booking enquiries:**

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## SUMMER SCHOOL PROGRAMME 3: INTELLIGENT MACHINES    DATE: 2-15 SEPTEMBER 2018

### PROGRAMME AIMS:

This programme introduces mechatronics systems and intelligent machine elements, including different sensors, actuators, controllers, signal conditioning, and examples of software used in systems development. All attendees will be encouraged to join the Mechatronics Project Competition.

### TOPICS COVERED:

- Introduction to Mechatronics Systems; Intelligent Machines
- Sensors and Transducers: Conventional and Robotics Sensors
- Controllers: Microprocessors, Microcontrollers, DAQ
- Examples of Software Used in Mechatronics Systems
- Development of Intelligent Machines and Smart Systems; Artificial Intelligence
- Actuators: Electrical, Hydraulic, Pneumatic
- Signal Conditioning: A/Ds, Amplifiers, Filters, WB, PM, Protection

**FEE: £1,000** includes accommodation (en-suite room), three trips to local sites, and group transfer from Manchester Airport. Fee does not cover visa, flights, insurance, food, and local travel. Accommodation booking should be made before 1 April 2018.

**Fee:** *£1,160 includes extra one week accommodation (en-suite room).*  
*£1,320 includes extra two weeks accommodation (en-suite room).*

