The Department of Automatic Control & Systems Engineering

The Department was established in 1968 in response to the growing importance of Automatic Control and Systems Engineering to all branches of industry world-wide. We have since grown to become the largest Control and Systems Engineering Department in Europe. Our growth has been due to both the increasing demand for education in the area and the effects of rapid changes in engineering, computing and technology.

“Our MSc is strongly informed by our world leading research and through input from our numerous industry partners. Studying with us will give you a strong grounding in systems and control engineering and prepare you for an exciting career.”

- Professor Daniel Coca, Head of the Department of Automatic Control and Systems Engineering

Don’t just do the job, Run the job.

MSc in Advanced Control & Systems Engineering with Industrial Management

www.sheffield.ac.uk/acse
Course Structure

We are pleased to introduce our new MSc in Advanced Control and Systems Engineering with Industrial Management. This course will not only teach you about the fundamental and advanced concepts of modelling, simulation, control, optimisation and systems engineering, but also provide you with a range of management techniques, including: project management, risk management, professional skills and effective management of innovative development.

There is a strong focus on the generality of these concepts ensuring that you will be equally prepared for careers in a variety of disciplines that rely on control and systems engineering. An emphasis will also be placed on the development of your practical and transferable skills, through the practice of laboratory work, working with advanced control and systems software packages and project work.

Each student on the course will work with their own 'take-home kit'. This is a portable piece of equipment that enables you to work with meaningful hardware in a time and place of your choosing, thus removing many of the limitations of traditional lab based teaching.

A third of your assessment will be a major project, which will be comprised of a mix of theoretical, practical, and industry-related work. The project is an ideal opportunity for you to focus on an area of particular interest to you.

All students will take the following core modules:
- Foundations of Control Systems
- State-Space, Non-Linear and Optimal Control
- Signal Processing and Estimation
- Embedded Systems and Rapid Control Prototyping
- Control Systems Project and Dissertation
- Professional Responsibilities of the Engineer
- Design Innovation Toolbox
- Managing Engineering Projects and Risk

Students can select one of the following optional Modules:
- Advanced Industrial Control
- Intelligent and Vision Systems or Nonlinear and Hybrid Systems
- Robotics and Autonomous Systems or Multisensor and Decision Systems

Careers and Further Study

As an ACSE graduate you will be well placed to pursue a career in a variety of Engineering fields, such as manufacturing, power generation, sustainable energy and science and commerce. Many of our graduates have gone on to work for a large international organisations and companies such as; British Airways, IBM, Rolls-Royce and Unilever.

Alternatively you may decide that a career within research or academia is right for you. Many of our graduates continue at the University of Sheffield to pursue a PhD. If you choose this path you could be eligible for the Harry Nicholson Postgraduate Research Scholarship which is awarded to the most promising graduate from this programme. This scholarship includes both fees and maintenance.

“\nThis course will not only provide you with advanced control and systems engineering knowledge but also introduce you to wider business contexts - helping you to develop a firm understanding of the commercial, social and ethical implications of your work.”
- Dr Beverley Gibbs, Senior University Teacher in Engineering Management

Key Facts

Duration: 12 months

Entry requirements: First or upper second class honours degree (or equivalent).

Alternatively you might be an experienced professional, thinking about updating your knowledge of the subject.

Please note: You will need to have excellent mathematical notation and basic computer programming skills to thrive on this course.

Language requirements: IELTS 6.5 (6 in each competency)

Fees:
- UK/EU: £10,700
- International Students: £19,500

How to Apply: See www.sheffield.ac.uk/acse/masters/apply