Connected and Autonomous Vehicle Engineering (Automotive) MSC*

MSc/PgDip/PgCert

The MSc in Connected and Autonomous Vehicle Engineering will provide you with the necessary skills for employment in the 'intelligent mobility' sector. The course focuses on technical and transferable skills which will enable you to design and develop automotive products.

Course structure

The MSc in Safety and Human Factors in Aviation consists of taught modules, Elective taught modules and group project modules. Students will also complete an individual research project.

Individual project

Individual thesis projects allow the students to deepen their understanding through research work related to motorsport mechatronics. Students self-manage their thesis projects with support from their academic supervisor and industry contact, if part of their project. The conclusion of their research work is a concisely written thesis report and the presentation of a poster outlining their project.

Group project

Our group design projects have proven very successful in generating new conceptual designs, which subsequently have been implemented in competition vehicles; they have even influenced the formulation of technical and sporting regulations. Group design projects are usually supported by industry partners and provide students with skills in team working, managing resources and developing their reporting and presentation skills. You will review your peers and they will appraise your contribution to the project.

Future career

Studying at Cranfield will immerse you in a highly focused engineering learning experience, providing you with access to automotive companies and practitioners. Securing employment is ultimately down to the student who completes the job applications and attends the interviews.

Example modules

Example modules will include:

• Embedded Vehicle Control Systems
• Ethics, Safety and Regulation
• Fundamentals of Road Vehicle Engineering
• Human Factors, Human-Computer Interaction and Advanced Driver Assistance Systems (ADAS)
• Networked Systems and Cybersecurity
• Path Planning, Autonomy and Decision Making
• Sensors, Perception and Visualisation
• Systems Engineering
• Technology Strategy and Business Models
• Transport System Optimisation

Duration:
MSc: Full-time - one year, Part-time - up to three years
PgDip: Part-time, two years
PgCert: Full-time - up to one year, Part-time - two years

Start date:
October

Location:
Cranfield Campus

Entry requirements
A First or second class UK Honours degree or its international equivalent in engineering, including electronics, a relevant STEM discipline such as engineering, aerodynamics, physics or applied mathematics. You must have A-Level mathematics and physics, or their international equivalent.

ATAS Certificate
Students requiring a visa to study in the UK may need to apply for an ATAS certificate to study this course.

Contact details

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For further information please visit
www.cranfield.ac.uk/courses/taught/ connected-and-autonomous-vehicle-engineering

*Subject to University approval