



Connected and Autonomous Vehicle Engineering (Automotive) MSc

www.cranfield.ac.uk/CAVEA



The automotive sector is changing rapidly. Car manufacturers and technology companies are developing new autonomous technologies that will redefine the future of ground transport. With the rapid adoption of smart vehicle functions, industry requires a unique set of skills from its engineers and programmers.

The Connected and Autonomous Vehicle Engineering (Automotive) MSc will develop a broad range of technical and transferable skills that are important for the development of autonomous and connected ground vehicles, with the aim to prepare you for a career within the automotive sector.

In addition to covering the fundamental technologies, i.e. electronic systems and algorithms, that enable the automation of ground vehicles, the course provides valuable insights on industry standards and automotive best practices, on relevant regulation and ethical considerations that will impact the design and the usage of connected and autonomous vehicles. The course will also explore the benefits of these new technologies in the management of traffic and the transportation of goods, ensuring that the proposed engineering solution are supported by sustainable business models.

Who is it for?

This course is suitable for engineering, science, mathematics and computing graduates alongside experienced engineers who are interested in a career in the automotive or intelligent mobility sectors. The course is intended to equip its graduates with skills that will be of immediate use but will also develop them for senior technical and business leadership roles in future. With the growing demand for highly-skilled professionals both within automotive manufacturers and the high technology supply chain, successfully completing this course will provide a distinctive skill set that graduates will find useful in securing employment globally.

Your career

Our students can aspire to secure roles, for example, in Research and Development, within ADAS development teams of automotive manufacturers, consultancies, CAV start-ups, or Tier 1 suppliers. The broader knowledge of the CAV ecosystem will enable you to move into management roles.

Roles that our students have gone into include:

- Research Engineer,
- Sensor Integration Engineer,
- Computer Vision Research Engineer,
- Application Engineer.

Overview

Start date

October

Duration

One year full-time

Qualification

MSc

Study type

Full-time

Structure

Taught component (50%), Group project (10%), Individual research project (40%)

Campus

Cranfield campus

Entry requirements

We welcome applications from talented individuals of all backgrounds and each application is considered on its individual merit. Usually applicants must hold:

A UK lower second-class (2:2) undergraduate degree with honours, as a minimum, or equivalent international qualification.

Ideally, applicants will have studied in engineering, mathematics or an applied science subject.

Find information about equivalent qualifications in your country on our International entry requirements page.

Fees

Please see www.cranfield.ac.uk/fees for detailed information about fee status, full-time and part-time fees as well as deposit requirements and bursary and scholarship information.

Course details

The course will include ten taught compulsory modules, which are generally delivered from October to March.

Modules

Keeping our courses up-to-date and current requires constant innovation and change. The modules we offer reflect the needs of business and industry and the research interests of our staff. As a result, they may change or be withdrawn due to research developments, legislation changes or for a variety of other reasons. Changes may also be designed to improve the student learning experience or to respond to feedback from students, external examiners, accreditation bodies and industrial advisory panels.

To give you a taster, we have listed below the compulsory and elective (where applicable) modules which are currently affiliated with this course. All modules are indicative only, and may be subject to change for your year of entry

Compulsory modules

All the modules in the following list need to be taken as part of this course.

Vehicle Design, Propulsion and Performance

Human Factors, Human-Computer Interaction and ADAS Systems

Sensors, Perception and Visualisation

Technology Strategy and Business Models

Transport System Optimisation

Ethics, Safety and Regulation

Embedded Vehicle Control Systems

Path Planning, Autonomy and Decision Making

Networked Systems and Cybersecurity

Systems Engineering

"My experience at Cranfield has been truly exceptional, thanks to the knowledgeable instructors, industry-relevant coursework, and the opportunity to meet amazing individuals who have contributed to my personal and professional growth. Through the career and employability services offered by the programme, I was able to secure an internship position that aligned with my career aspirations of working as a software developer in the CAVE domain."

Zeliha Kirik

Current student, Connected and Autonomous Vehicle Engineering (Automotive) MSc

For more information contact our Admissions Team:
T: +44 (0)1234 758082

Visit campus for yourself and meet current students and our academics at our next Open Day:
www.cranfield.ac.uk/openday

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Every effort is made to ensure that the information provided here is correct at the time it is published. Please check our website for the latest information.