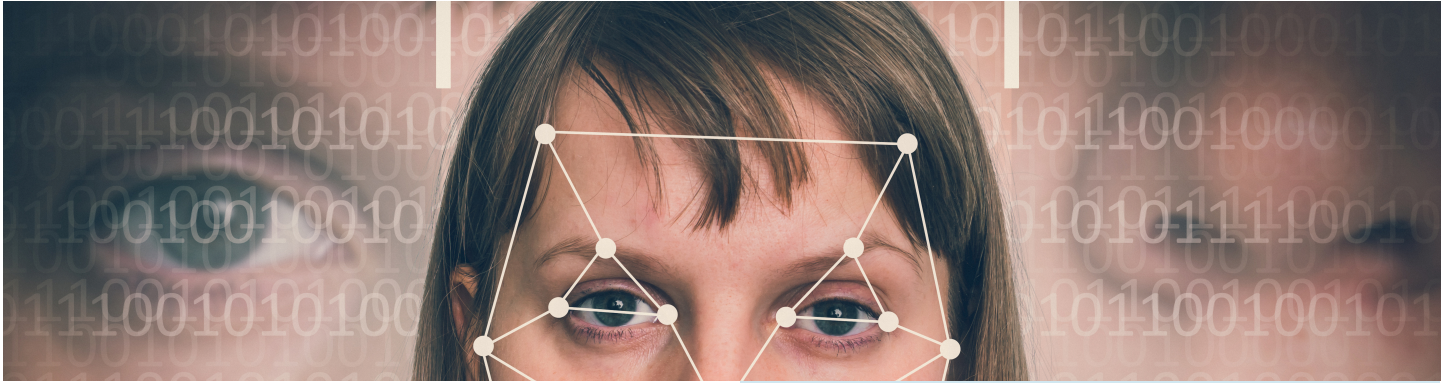




# Applied Artificial Intelligence MSc

[www.cranfield.ac.uk/AAI](http://www.cranfield.ac.uk/AAI)



**Artificial intelligence technologies are being increasingly adopted across a broad range of industries, creating demand for talented graduates who can help realise the transformative potential of AI. With a fundamental interest in AI, machine vision and computer sciences, you will have the desire to apply this knowledge to solve real-world engineering problems.**

Taught through a unique combination of theoretical and practical-based sessions, you will cover subjects in logic and reasoning, data analytics, deep learning, agent architectures, alongside the broader systems engineering and ethical considerations required for implementation in real-world systems.

## Who is it for?

This course provides engineering, physics, computing or mathematics graduates with the advanced skills which can be applied to the security, defence, marine, environmental and aerospace industries. This course is also available on a part-time basis, enabling you to combine studying with full-time employment.

## Your career

Industry-led education makes Cranfield graduates some of the most desirable all over the world for recruitment by both global primes to smaller innovative start-ups looking for the brightest talent.

Graduates from this course will be equipped with the advanced skills which could be applied to the security, defence, marine, environmental and aerospace industries. This approach offers a wide range of career choices with job roles including:

- Autonomous systems engineer,
- Machine learning engineer,
- Applied machine learning engineer,
- Data scientist,
- Research scientist,
- Big data engineer.

Organisations that have employed graduates of this course include:

- Airbus,
- Apifon,
- BAE Systems,
- Nissan Technical Center Europe,
- Rolls-Royce.

Others decide to continue their education through PhD studies available within Cranfield University or elsewhere.

## Overview

### Start date

October

### Duration

One year full-time, two-three years part-time

### Qualification

MSc

### Study type

Full-time / Part-time

### Structure

Taught modules 40%, group project 20%, 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 aeronautics/aerospace engineering, mechanical engineering, electrical/electronic engineering, pure mathematics, computer science, software engineering, mechatronic engineering or information technology subjects.

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

Applicants who do not fulfil the standard entry requirements can apply for the pre-master's course, successful completion of which will qualify them for entry to this course for a second year of study.

## Fees

Please see [www.cranfield.ac.uk/fees](http://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 eight taught compulsory modules, which are generally delivered from October to March.

Students are also supported in their learning and personal development through participation in: industry seminars, group poster session, group discussions, group presentations, video demonstrations, case studies, laboratory experiments, coursework and project work. Students will receive hands-on experience accessing equipment and facilities within both our Aerospace Integration Research Centre and Intelligent Mobility Engineering Centre.

The new Applied Artificial Intelligence MSc will use standard teaching and assessment methods as well as technology-enhanced teaching (TET) methods such as a Virtual Learning Environment (VLE) to support different learning styles. Theories and fundamental of AI will be taught in both lecture and workshop formats where videos and technology demonstrators will be used as teaching aids. Lecture videos will be available on VLE to provide an interactive learning experience.

### 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.

**Statistical Learning Methods**

**Search and Optimisation**

**Deep Learning for Computer Vision**

**Intelligent Cyber Physical Systems**

**Data Analytics and Visualisation**

**Deep Learning for Autonomous Decision Making**

**Logic and Automated Reasoning**

**Ethical, Regulatory and Social Aspects of AI**

"The course at Cranfield nurtured my existing strengths and domain expertise while building my skills in Artificial Intelligence Applications in the industry. The highlight of the course was the opportunity to work with industry partners during my thesis, allowing me to apply the knowledge I learnt in the year. I feel the environment at Cranfield really allowed me to develop my potential and prepare myself for the industry."

**Muhammad Yousuf Shaikh**

Flight Physics Software Graduate, Airbus, Applied Artificial Intelligence MSc (2022)

## Accreditation

This degree has been accredited by British Computer Society (BCS), The Chartered Institute for IT for the purposes of partially meeting the academic requirement for registration as a Chartered IT Professional. Accreditation is a mark of assurance that the degree meets the standards set by BCS. An accredited degree entitles you to professional membership of BCS, which is an important part of the criteria for achieving Chartered IT Professional (CITP) status through the Institute. Some employers recruit preferentially from accredited degrees, and an accredited degree is likely to be recognised by other countries that are signatories to international accords.



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/opensday](http://www.cranfield.ac.uk/opensday)**

January 2025

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.