



Thermal Power - Gas Turbine Technology option

MSc/PgDip

The UK continues to lead the world in power and propulsion technology. In addition to its established aerospace role, the gas turbine is finding increasing application in power generation, oil and gas pumping, chemical processing and power plants for ships and other large vehicles.

The Gas Turbine Technology option of the MSc in Thermal Power provides a comprehensive background in the design and operation of different types of gas turbines for all applications.

Course structure

The course consists of taught modules and an individual research project. There is also an opportunity to choose from an extensive choice of optional modules to match specific interests.

Individual project

You are required to submit a written thesis describing an individual research project carried out during the course. Many individual research projects have been carried out with industrial sponsorship, and have often resulted in publication in international journals and symposium papers.

Future career

Many of our graduates are employed in the following industries:

- Gas turbine engine manufacturers,
- Airframe manufacturers,
- Airline operators,
- Regulatory bodies,
- Aerospace/Energy consultancies,
- Power production industries,
- Academia: doctoral studies.

Example modules

The taught programme consists of compulsory and elective modules.

Compulsory:

- Combustors,
- Engine Systems,
- Gas Turbine Performance Simulation and Diagnostics,
- Turbomachinery and Blade Cooling,
- Management for Technology,
- Mechanical Design of Turbomachinery.

Elective:

- Computational Fluid Dynamics for Gas Turbines,
- Fatigue and Fracture,
- Gas Turbine Operations and Rotating Machines,
- Jet Engine Control.
- Propulsion Systems Performance and Integration.

Duration:

MSc: Full-time - one year,
PgDip: Full-time - up to one year.

Start date:

March or October.

Location:

Cranfield Campus.

Entry requirements:

A first or second class UK Honours degree (or its equivalent) in engineering, mathematics, physics or an applied science.

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

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/gasturbinetech