



The
University
Of
Sheffield.

Department
Of
Mechanical
Engineering.

MSc(Res) Aerodynamics and Aerostructures

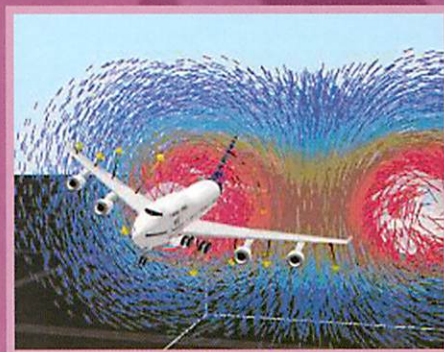


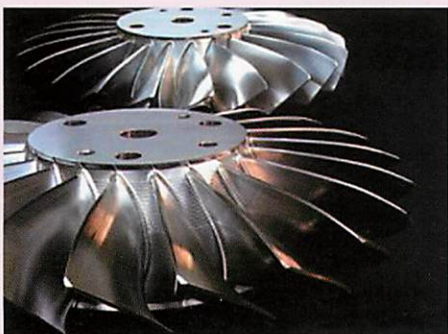
This course offers a range of advanced level modules that address key challenges faced by engineers in the aerospace and power generation sectors, and combines fundamental engineering knowledge with the latest developments in technology.

As well as taught modules you'll also undertake an individual research project, worth more than half of the overall course credits, giving you the opportunity to complete an in-depth investigation on a challenging and relevant topic.

This substantial project provides practical experience of research, complemented by training in research methods and

management, helping to prepare you for a career in industry or further research at PhD level.





Example Project

Clémence Vignaux – Developing a Methodology for Modelling an Inflatable Wing

“Inflatable wings are a solution for many situations where wings need to be stowed when not in use and inflated prior to or in flight. They have been used in various applications over the past few decades, including aircraft, Unmanned Aerial Vehicles/Micro Aerial Vehicles, airships and missile stabilisation surfaces.

The aim of my project is to demonstrate that inflatable wings may be a promising solution for a Micro Aerial Vehicle characterised by a given set of requirements, including a wide range of flight speeds.

This involves constructing a fluid/structure interaction model of the wing by making the software Fluent and Ansys communicate with each other - Fluent dealing with the computational fluid calculation and Ansys with the computational structural calculation. This will show the deformed shape of the wing under a given set of flight conditions (airspeed, angle of attack etc.)”

Typical Modules:

- Aerosystems and Structures
- Aero-Propulsion
- Condition Monitoring
- Aerodynamic Design
- Advanced Composite Structures



How to Apply

For more information on entry requirements and how to apply please visit our website:

www.sheffield.ac.uk/mecheng/prospectivemsc

For further advice and guidance on applying please email the postgraduate admissions department: me-pgadmit@sheffield.ac.uk