

For more information:
<https://admission.usm.my/postgraduate>



CONTACT

School of Aerospace Engineering
Universiti Sains Malaysia
Engineering Campus
14300 Nibong Tebal,
Pulau Pinang, MALAYSIA

 pg_aero@usm.my

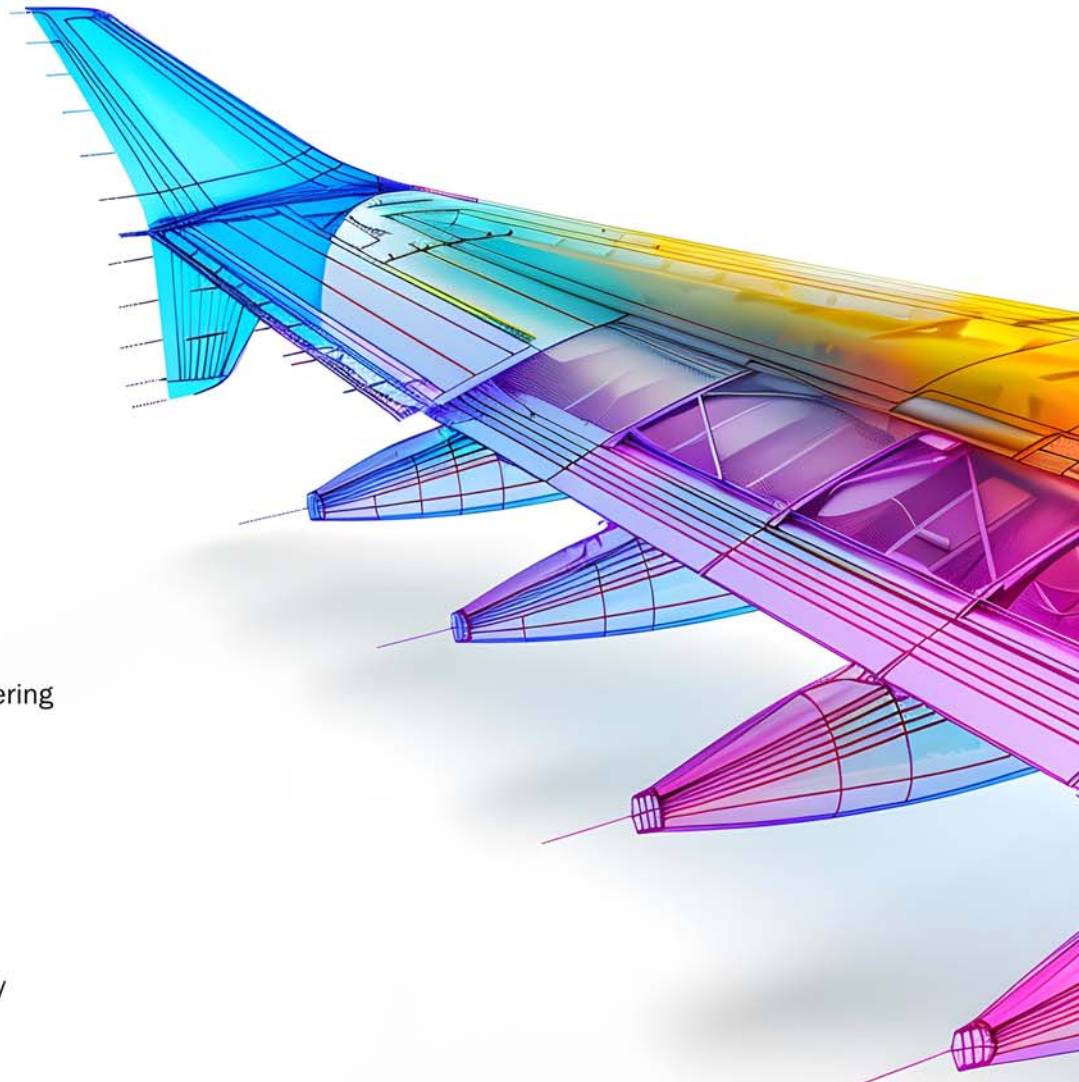
 aerospace.eng.usm.my
experts.usm.my



UNIVERSITI
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MALAYSIA



POSTGRADUATE PROGRAMS



ABOUT THE SCHOOL

USM's Aerospace Engineering began from early engineering programs in 1972, later expanding through major restructuring and campus relocations. Formed as a unit in 1998 and upgraded to a full school in 1999, it supports USM's growth into a leading research university, strengthened by APEX status and strategic development initiatives.



PROGRAM OVERVIEW

The School offers M.Sc. postgraduate research programmes in Aerospace Engineering on a full-time or part-time basis. Research areas include Aerodynamics, Computational Fluid Dynamics, Aerospace Structures, Composite Technology, Propulsion, Aerospace Control, and Space Systems. Candidates conduct supervised research under at least one academic staff member and must complete the study within the stipulated time frame.

ADMISSION REQUIREMENTS

Applicants should have the following minimum requirements:

For M.Sc: A bachelor's degree with honors in Engineering (or relevant field) and CGPA of at least 2.75.

For Ph.D: A Master's or Bachelor's (Fast-track: First class or CGPA >3.67).

Minimum language requirement (for foreign student): IELTS Band 6, TOEFL Score 550 or MUET Band 3.

MSc (Master of Science) Research Mode

Duration:

Full-time: Min 12 months/Max 36 months.

Part-time: Min 24 months/max 72 months.

Graduate Requirements:

- Minimum 1 SCOPUS/WoS publication.
- Research supervision by School of Aerospace Eng. academic staff.
- Supervisor and USM affiliation is mandatory.

PhD. (Doctor of Philosophy) Research Mode

Duration:

Full-time: Min. 24 months/Max. 60 months.

Part-time: Min. 36 months/Max. 90 months.

Graduate Requirements:

- 2 SCOPUS/WoS or 1 Q1/Q2 publication.
- Supervisor and USM affiliation is mandatory.
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RESEARCH CLUSTERS

FLUIDS

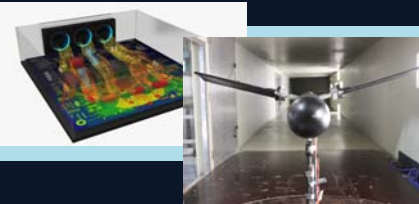
Research on theoretical, numerical, and experimental studies of fluid phenomena for aerospace applications.

Research fields:

- Computational Fluid Dynamic (CFD)
- Aerodynamics
- Propulsion systems
- Thermo-fluids
- Heat Transfer

Facilities:

- CATIA Laboratory
- Wind Tunnel Laboratory
- Aerodynamics Laboratory
- CFD Laboratory



MATERIALS & STRUCTURES

Research in aircraft structures, composite and bio-composites materials, and aero-elasticity research.

Research fields:

- Aero-composites
- Finite Element Analysis (FEA)
- Fatigue
- Fluid-Structure Interaction (FSI)

Facilities:

- Welding & Robotic Laboratory
- Structure & Manufacturing Laboratory
- Composite Laboratory
- Workshop
- Hangar



SYSTEM & DESIGN

Research on advances UAV and aircraft technologies through innovative system development, instrumentation, autonomous navigation, and real-world applications in agriculture, and sustainable aviation.

Research fields:

- Drone
- Control System
- Artificial Intelligence (AI)
- Autonomous Systems
- Internet of Things (IoT)
- Sustainable Aviation Fuel (SAF)

Facilities:

- Unmanned Aerial Vehicle Laboratory
- Flight Mechanic Laboratory
- System and Instrumentation Laboratory
- Propellant Laboratory
- Propulsion Laboratory



SPACE SYSTEMS

Research in near space, small satellite system, dynamics and control, space weather, radar and satellite communication.

Research fields:

- Spacecraft Design
- Radar
- Satellite Communication
- Space Weather
- Image processing

Facility:

- Space System Laboratory

