



WIND TUNNEL LABORATORY



School of Aerospace Engineering



USM

UNIVERSITI SAINS MALAYSIA



**SOARING
UPWARDS**

MALAYSIAN HIGHER EDUCATION



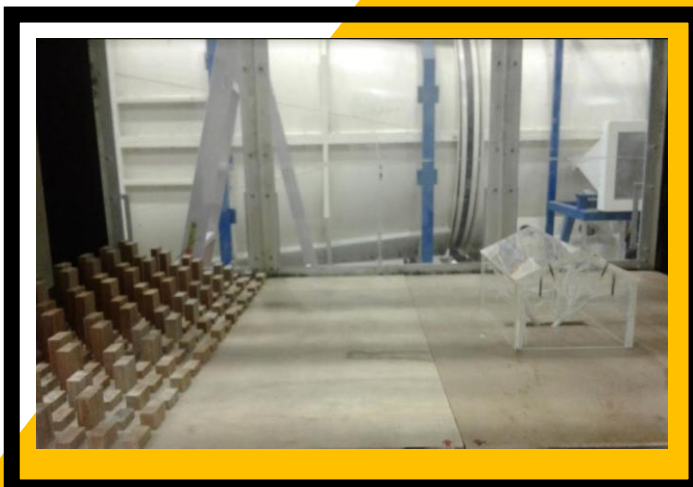
Wind Tunnel

Welcome to the Aerospace Wind Tunnel Laboratory at USM, Engineering Campus. The lab is equipped with a low speed subsonic, closed circuit wind tunnel with a rectangular test section.

- **Test section size: 0.8 m x 1.0 m x 1.8 m**
- **Top speed: 80 m/s**
- **Turbulence level: 0.1%**



We have a 6-component internal balance capable to measure aerodynamic loads, a pressure scanner for pressure measurements and smoke wire systems developed for flow visualization analysis.



Services & Consultation

The lab provides wind tunnel testing to measure aerodynamic loads, flow visualization analysis and pressure measurement for wide range of application such as:

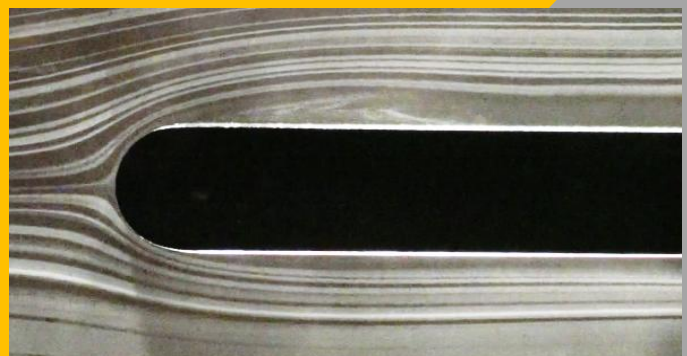
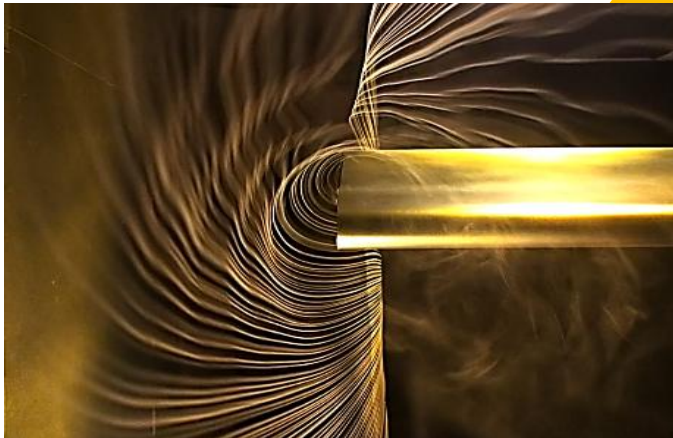
- **Transport:** Aircraft, car, bicycle, lorry
- **Civil:** Building, bridge, roof turbine ventilator
- **Sports:** Football, golf ball, F1-sports car
- **Animal:** Birds



Specially-designed quadrant mechanism is installed underneath the test section to allow for control on the pitch and yaw. In addition, a traversing system is mounted on the roof of the test section to allow for movement in 3 direction (upward/downward, stream wise and cross wise) for flexibility to cater for any experimental arrangements.

All movement systems can be controlled either manually or automatically from the control room. The test section floor is movable to accommodate various wind tunnel testing configuration. The wind tunnel facility is also fully utilized for the undergraduate studies under Open-Ended Lab (OEL) course to provide broad experience and exposure for the student's development.

Flow Visualization



High quality images captured in the USM wind tunnel

Affordable Price

We welcome all visitors from universities, government or private industries and will try our best to accommodate your request. We offer **special rate** for wind tunnel testing (RM 1000/ day) and if you have special requirements or need further information, please do not hesitate to contact us.

Dedicated Staff

We have experience technical staffs to assist the wind tunnel testing:



Mr Mohamad Najhan Awang

Mr Mahmud Isa

Mr Nor Ridwan M.Yusof



Contact Us



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