UTM
UNIVERSITI TEKNOLOGI MALAYSIA

Innovating Solutions

POSTGRADUATE STUDY

FACULTY OF MECHANICAL ENGINEERING

Study at
Universiti Teknologi Malaysia

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POSTGRADUATE STUDY
FACULTY OF MECHANICAL ENGINEERING

TAUGHT COURSE	RESEARCH
Master of Science (Mechanical Engineering) Master of Science (Industrial Engineering)	Master of Philosophy • Marine Technology • Mechanical Engineering Doctor of Philosophy • Mechanical Engineering

AREAS OF RESEARCH

Applied Mechanics & Design:

- Adaptive Control and Intelligent System
- Computational Solid Mechanics
- Mechatronics & Instrumentation
- Artificial Intelligence
- Elasticity & Plasticity
- Automatic Control & System Engineering
- Fatigue and Fracture Mechanics
- Biomechanics & Biomedical Engineering
- Finite Element Method
- Functional ControlSystems
- CAD & Virtual Reality
- Guided Wave & Acoustic
- Composite Structure & Ballistic Impact
- Structural Dynamic & Mechanics
- Structural Impact & Crashworthiness
- Thin-Walled and Polymeric Materials
- Tissue Engineering Scaffolds
- Porous Structures
- Reliability & Engineering
- Design
- Shells & Pressure Vessels
- Structural Vibration
- Condition Monitoring

Thermofluids:

- Advanced Refrigeration and Air-Conditioning System
- Combustion & Heat Transfer
- Compressible Flow
- Computational Fluid
- Dynamics
- Fuel, Biomass, and Energy
- Heating & Ventilation
- Micro-Cooling
- Sustainable Energy Technology
- Thermofluids
- Measurement and Diagnostics
- Energy Management
- Tribology & lubrication

Materials, Manufacturing & Industry:

- Advanced Manufacturing Process
- Advanced Materials
- Automation in Manufacturing
- CAD/CAPP/CAM/CNC
- Carbon Nanomaterials
- Ceramics and Composites
- Ceramics Coating
- Ferrous metallurgy
- Solder Metallurgy Technology
- Solid State Kinetics
- Surface Coating
- Surface Treatment and Industrial
- Engineering
- Surface Engineering and Composites Machining
- Sustainable Product Design
- System Dynamic Modeling
- Virtual Manufacturing Work Design
- Quality improvement and Design Improvement
- Operations Management Research
- Life cycle Assessment
- Supply chain Management
- Lean manufacturing Facility design and Management

Automotive, Aeronautic & Offshore:

- Advanced Ice-Ship
- Aerodynamics
- Airspace Safety Monitoring System
- Automotive Tribology
- Avionics and Antennae
- Biofuel and Multiphase Flow
- Brake Design & Safety
- CFD & CombustionTechnology
- Computer Vision
- Contact Mechanics
- Electric and Hybrid Vehicles
- Engine Air Management
- Ethnographic Factors in Fishing Boat Design
- FEM & Model Updating
- Flight Guidance and Control
- Flight Simulation
- Helicopter Technology
- Aircraft Structures
- Drone Technology
- Rocket Propulsion
- Tunnel Testing
- Turbo machinery & Aeroacoustics
- Unsteady Aerodynamics
- Vehicle Powertrain
- Vehicle Stability and ControlWind
- Vehicle Dynamics and Control
- Vortex Induced Vibration
- Wave Structure Interaction
- Hull-Riser-Mooring Coupled
- Hydromechanics
- Low Emission Combustor
- Marine Active Control
- Marine Safety and Environment
- Marine Transport and Management
- Mega-Float Design & System
- Modelling
- Ship Dynamics
- Smart Offshore Structure
- Stability & Design
- Subsea & Offshore
- Engineering System Energy

Notes:

1. A comprehensive list of research areas can be found at the respective faculty websites.
2. Areas and disciplines for Masters by Research and PhD study other than listed above will be offered as Generic Programmes at faculties and schools.