



# FACULTY OF ENGINEERING RESEARCH DEGREE PROGRAMMES

[engine.um.edu.my](http://engine.um.edu.my)

Welcome to the Faculty of Engineering. You have certainly made the right choice to do your research degree programme here at University of Malaya. As a research student, you will be a part of a community of researchers that support each other in a student friendly environment, and you will benefit from the subject matter experts accompanied with research training in your chosen field. We have an exceptional track record in terms of our high impact research, experienced team of staff and state of the art equipment. Most of all, you will gain significantly from an opportunity to get a world class postgraduate research degree from a top tier ranked university.

## Our Rankings



**UNIVERSITY  
OF MALAYA**

# Reasons to do Postgraduate Studies with us, here at engineering@UM

- Study at one of the world's best Faculty – we are ranked 35 under the latest QS World University Rankings 2017
- Recipient with the highest High Impact Research (HIR) Funding of RM131 million over the past 5 years and these research projects were carried out with renowned international collaborators
- As a graduate student, you will have the chance to select from our wide research offerings (refer to our research fields) to better match your field of interest
- Our academic staff are subject matter experts and have excellent track record in supervision of PhD and Masters by research students
- Well-equipped research facilities
- Opportunity to be part of world class research programmes in the Faculty and participate in student exchange programmes through our partner universities such as European Erasmus + Mobility Programme, AOTULE Student Exchange Program, Evidence based approach field work summer in Japan, Pembroke-King's Programme, etc.
- Provide excellent training ground for writing research papers/journals
- Contribution to knowledge with an opportunity to co-author papers in highly ranked journals
- On average, about 200 PhD & Masters of Engineering Science students graduate per year from our Faculty
- Strategic location (in the heart of the city), with easy access through UM rides and public transport

## Postgraduate Programmes

Doctor of Philosophy (PhD)  
Master of Engineering Science (MEngSc)

## Duration of Programme

Doctor of Philosophy (3 years)  
Master of Engineering Science (2 years)

## Our Fees

### Doctor of Philosophy

Malaysian Student (RM18,000)  
International Student (RM45,000)

### Master of Engineering Science

Malaysian Student (RM11,000)  
International Student (RM31,000)

## Entry Requirements for Postgraduate Programmes

### Admission requirements

#### Malaysian & International Application

#### Doctor of Philosophy (PhD)

A Master degree with honors in a related field; AND  
A Bachelor degree with honors in a related engineering field or equivalent degree; AND  
Meet other conditions set by the Senate

#### Master of Engineering Science

A Bachelor degree with honors in a related engineering field or equivalent degree; OR  
Meet other conditions set by the Senate

### English Language Requirements

Have at least IELTS Band 5.5 or TOEFL 550, if the degree is from a university where English is not the medium of instruction.



# Research Fields



## Biomedical Engineering

- Biomechanics
- Biomaterials Cell & Tissue Engineering
- Medical Imaging
- Systems Neuroscience
- Bioinformatics and Computational
- Biology Computational and Physiological Modeling
- Biomedical Microelectromechanical (BioMEMS)
- Bioinstrumentation and Rehabilitation



## Chemical Engineering

- Advanced Materials and Technology
- Bioprocess Engineering
- Health, Safety and Environment
- Petroleum Engineering
- Process Modelling and Simulation
- Green Technologies and Cleaner Production
- Process Systems Engineering and Control
- Purification and Separation Processes
- Reaction Engineering



## Civil Engineering

- Construction Management, Mathematics and Surveying
- Hydraulics, Water and Environmental Engineering
- Geotechnical Engineering
- Transportation Engineering
- Structural Engineering and Material



## Electrical Engineering

- Satellite Communications
- Signal and Image Processing
- Machine Learning
- Power Electronics and Drive
- Renewable Energy
- Control System
- Wireless Communication Systems
- Robotics and Automation
- Human-Machine Interface
- Photonics and Fiber Optic Devices
- Power System/High Voltage
- Semiconductor
- MEMS Design and Fabrication
- RF and Microwave
- Electromagnetic/Antenna



## Mechanical Engineering

- Applied Mechanics
- Heat Transfer
- Acoustics and Vibration
- Combustion Engine
- Renewable and Sustainable Energy
- Tribology
- Nano Materials
- Electronic Materials
- Biomaterials
- Metallurgy
- Joining Technology
- Automation and Robotics
- Micro Devices
- Sustainable Design and Manufacturing
- Human Factors Engineering

Let us bring out the best in you,  
here at [engineering@um](mailto:engineering@um.edu.my)

Engineering Business Unit  
Faculty of Engineering, UM

**W** [engine.um.edu.my](http://engine.um.edu.my)

**E** [enr.biz@um.edu.my](mailto:enr.biz@um.edu.my)

**M** +6010 239 7979



**UNIVERSITY  
OF MALAYA**