



THE BRANDLAUREATE
CSR BRANDEADERSHIP
AWARDS 2018



PERDANA UNIVERSITY

DU026(B)



MASTER OF MEDICAL EQUIPMENT ENGINEERING

JPT/BPP (N/725/7/0082) (MQA/PA12121) 11/24

GRADUATE SCHOOL OF MEDICINE



DEAN'S MESSAGE



PROFESSOR DATO' DR. HJ. MOHAMAD FAROUK ABDULLAH
Clinical Professor in Obstetrics & Gynaecology
MBBS (Malaya), FRCOG (London), CRM (Malaysia)

Rapid changes in Modern Medicine have been accompanied by a surge in medical technological advances. Current day medical practice relies increasingly on technology.

There is a growing need for medical equipment technologists/engineers to help coordinate and provide technical support in Hospitals and Health Care Institutions. Unlike pharmaceuticals, medical equipment is highly dependent on how well they are maintained, thus creating a bigger and unprecedented opportunity and need for more technicians and engineers to keep up with this growing trend.

Medical Equipment Engineering covers a vast array of different functional fields and medical devices. Key applications include the development of biocompatible prostheses, various diagnostic and therapeutic medical devices ranging from clinical equipment to micro-implants and imaging equipment such as Ultrasound, CT Scans, MRIs and EEGs.

The Perdana University Master of Medical Equipment Engineering (MMEE) is an innovative Program in Malaysia involving the application of engineering principles and design concepts to medicine for healthcare purposes. This exciting and challenging Program will give students a broad knowledge base in this new field, as well as allowing them to specialise through their choice of optional modules. Emphasis will be on the multidisciplinary nature of medical equipment engineering and the current shift towards the interface between engineering and the life sciences.

Our Medical Equipment Engineering Program offers you the opportunity to gain in-depth information on a broad-range of topics within health care and technology, while working with state-of-the-art medical facilities and industry partners.

ABOUT PERDANA UNIVERSITY

Perdana University is envisioned to be an education-research hub for the region fulfilling the needs of the nation for competent health science graduates. It was established as a Public Private Partnership (PPP) initiative by Academic Medical Centre Sdn. Bhd., a subsidiary of Chase Perdana Sdn. Bhd. with the support of the Prime Minister's Department. The University is well equipped with leading edge teaching and learning facilities.

PROGRAMME OVERVIEW & OBJECTIVES

The Perdana University Master of Medical Equipment Engineering (MMEE) is a new Program in Malaysia. Medical Equipment Engineering is a multidisciplinary field that combines Biomedicine and Engineering, applying engineering principles and materials to medicine and healthcare.

This Program is a confluence of Engineering, Technology and Medical Sciences focusing on developing, designing and improving medical equipment and devices.

The Program is developed;



To produce responsible Medical Equipment Engineers with exceptional ethical values and character to meet the professional standards and proficiency required to fulfill Malaysia's technological advancement, aspirations and global demand.



To produce Medical Equipment Engineers competent in the use of current advanced technology and emerging engineering challenges in the health sector.



To produce Medical Equipment Engineers who are conscious of environmental challenges and prepared to find effective solutions to these challenges through lifelong learning and professional updates.



To produce Medical Equipment Engineers sought after by potential employers for their technological and managerial skills.

WHY STUDY MEDICAL EQUIPMENT ENGINEERING?

- To advance the quality of health care delivery through provision of innovative and enhanced technological methods and tools for effective diagnosis and treatment of diseases.
- To offer excellent opportunities to build a strong background in medical engineering and benefit from the collaborative interdisciplinary relationships between engineering and life sciences.

WHY STUDY AT PERDANA UNIVERSITY?

- Perdana University has created a conducive learning and enriching environment to pursue a postgraduate course.
- The academic resources including faculty members, online resources and a supportive teaching-learning environment enhance a comfortable learning path to achieve one's aspiration in the field.

WHO WILL MENTOR ME?

The academic team consists of dedicated and experienced local and foreign academicians, in collaboration with academicians from public universities as well as other key stakeholders in the field of Medical Equipment Engineering.

DURATION

Full Time: 1.5 - 2 years
Part Time: 3 - 4 years

DELIVERY MODES

Lectures, problem based learning, tutorials, seminars, self-directed learning and projects.

WHO MAY ENROL?

- Medical doctors
- Engineers
- Nurses
- Paramedics
- Biotechnologists
- Biomedical Engineers
- Science graduates
- Medical lab technologist
- Others

CAREER PATHWAYS?

- Medical/Biomedical Engineer
- Rehabilitation Engineer/ Assistive Technologist
- Medical Physicist
- Radiation Safety Officer
- Tissue Engineer
- Academic Staff, and Research Scientists in Private Establishments and Government Ministries

HOW AM I ASSESSED?

An array of assessment methods are used in line with the recommendations of the Malaysian Qualifications Agency and in tandem with local and international practices. The different modes of assessment methods used are assignments, quizzes, class presentations and final written examinations. The research and project work are assessed through proposal defence, research progress and final project/thesis defence.

ACADEMIC CRITERIA

A Bachelor's degree or equivalent in the field of Engineering, Science, Biomedicine or any other related field with a minimum CGPA of 2.50;

OR

A Bachelor's degree or equivalent below a CGPA of 2.50 can be accepted subject to a minimum of 5 years working experience in the relevant field;

OR

Any other equivalent qualifications recognised by the Malaysian Government and approved by the Senate of the University

AND

Evidence of English language proficiency [TOEFL (with a minimum score of 500) or IELTS (with a minimum score of 5.0)] may be required for candidates whose previous University education was not in the English language.

CURRICULUM STRUCTURE

COMPULSORY MODULES	CREDIT HOURS
MENG 7101: Medicine and Surgery for Engineers	04
MENG 7103: Medical Signals, Circuits and Control	04
MENG 7105: Medical Engineering Management	04
MENG 7107: Medical Engineering Design	04
MENG 7109: Telemedicine and Medical Data Communication	04
MENG 7102: Engineering for Medicine and Biology	04
MENG 7104: Research Methodology	04
MENG 7111: Research and Project Work	08
*Elective Modules (Any three Modules)	09
TOTAL	45

ELECTIVE MODULES	CREDIT HOURS	ELECTIVE MODULES	CREDIT HOURS
MENG 7106: Applied Biomechanics	08	MENG 7118: Medical Electronics and Instrumentation	08
MENG 7108: Rehabilitation Engineering & Assistive Technology	08	MENG 7120: Medical Sensors and Devices	08
MENG 7110: Biomechatronics and Medical Robotics	08	MENG 7122: Medical Device Design	08
MENG 7112: Medical Imaging Systems	08	MENG 7124: Applied Biomaterial	08
MENG 7114: Medical Imaging Processing and Analysis	08	MENG 7126: Tissue Engineering	08
MENG 7116: Fundamentals of Medical and Radiation Physics	08	MENG 7128: Bionics and Artificial Organ Design	08

FIND US HERE

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Perdana University



www.perdanauniversity.edu.my

SCAN ME

FOR PROGRAMME AND SCHOLARSHIP
APPLICATION FORM

