UPM PUTRA PERTANIAN UNTUK RAKYAT
UNIVERSITI PUTRA MALAYSIA
BERILMU BERBAKTI

FAKULTI KEJURUTERAAN
FACULTY OF ENGINEERING
فاكولتي كجوروتراءن

Master Programme by Coursework
Faculty of Engineering

Master in
Computer Engineering with Technopreneurship

Scan Here for More Info

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Introduction

Master in Computer Engineering with Technopreneurship (MCET) is meticulously crafted to empower professionals with the tools to generate groundbreaking ideas and transform them into thriving businesses. By seamlessly blending computer engineering expertise with entrepreneurial skills, we prepare graduates to spearhead innovative startups and revolutionize industries.

Admission Requirements

1. Bachelor's Degree in Engineering or Engineering Technology:
   - CGPA ≥ 2.75; or
   - CGPA 2.50–2.74 with at least 3 years of relevant work experience; or
   - CGPA 2.25–2.49 with at least 5 years of relevant work experience.
2. Bachelor's Degree in a related field of Science or Technology:
   - CGPA ≥ 3.00; or
   - CGPA 2.75–2.99 with at least 3 years of relevant work experience; or
   - CGPA 2.50–2.74 with at least 5 years of relevant work experience.

Note: Candidates with a Science or Technology degree are required to take prerequisite Engineering modules to prepare for advanced studies.

Language Requirements

English Language Requirement (for international candidates):
- TOEFL (Paper-based Test): minimum 550, or
- TOEFL (Internet-based Test): minimum 79–80, or
- IELTS (Academic Training): minimum Band 6.0.

Note: Candidates who do not meet the minimum score may receive provisional admission and must pass the University's English Placement Test.

Programme Requirements

Credit Requirements for Graduation
Students enrolling under this programme must fulfil 43 credits of coursework to graduate. The credit distribution for compulsory courses, elective courses and dissertation is as follows:
- Compulsory Courses 24 credits
- Elective Courses 9 credits
- Dissertation 10 credits

Note: ECC5990 - Dissertation is carried out over two semesters (3+7 credits)

Course Synopsis

COMPULSORY MODULE

ECC5100 | Research Methodology | 3 Credits
Encompasses the fundamental principles of research such as the organization of relevant information, the determination of appropriate research methodology, and the production of research proposal papers.

CORE MODULE (CORE COURSES - MAJOR)

ECC5120 | ICT Project Management | 3 Credits
Covers topics related to project management for ICT related industries.

ECC5301 | Internet of Things | 3 Credits
Covers Internet of Things (IoT) fundamental, network architecture and design incorporating smart objects connectivity, IoT network layer, application protocols and data analytic.

ECC5307 | Machine Learning | 3 Credits
Covers the principles, issues and architectures of machine learning methods which includes several decision trees and neural network based methods.

ECC5701 | Big Data Architecture and Management | 3 Credits
Covers best practices in big data management including architecture, storage, operation, integration and interoperability.

CORE MODULE (CORE COURSES - MINOR)

ECC5501 | New Venture Discovery in Computer Engineering | 3 Credits
Covers important topics for the discovery of new ventures focusing on computer engineering.

MGM5140 | Innovation, Technology Management and Commercialization | 3 Credits
Focuses on the management of innovation, technology and commercialization in the business environment that is constantly challenging.

MGM5230 | Entrepreneurial Marketing | 3 Credits
Introduces marketing strategies and allows students to employ innovative marketing strategies relevant to the entrepreneurial environment.

CORE MODULE (ELECTIVE COURSES - MAJOR) - Choose only three (3) courses

ECC5308 | Deep Learning | 3 Credits
Covers the principles and architecture of deep learning including computation techniques, optimizers, autoencoders, attention and transformers.

ECC5401 | Speech Processing | 3 Credits
Focuses on the speech recognition system design, speech signal and signal processing and speech analysis.

ECC5403 | Imaging System | 3 Credits
Focuses on principles of human vision, image sensors, image displays, elements of a digital image processing system and compression used in image and video system.

ECC5409 | Network Management | 3 Credits
Covers management and monitoring effective computer network systems.

ECC5723 | Network Security | 3 Credits
Covers the principles of computer network security such as cryptography, security policy and design, and intrusion detection.

ECC5802 | Cloud Computing Architecture | 3 Credits
Covers fundamental concept of cloud computing which includes hardware, storage device, computing networking, and system design.

DISSERTATION MODULE

ECC5990 | Dissertation | 10 Credits
Covers essential aspects of preparing and conducting research studies, including developing skills in literature review, applying appropriate methodologies, and collecting and analyzing data.

Fees	Master Without Thesis	
	Malaysian Student	International Student
Basic Fees (1st semester)	RM 1,350	RM 2,400
Basic Fees (2nd and subsequent semester)	RM 1,100	RM 2,150
Credit Fees – Subject to change	RM 370 / credit	RM 450 / credit