

ENGINEERING

Global. Entrepreneurial. Trendsetter.

#GoForIt with MMU

Life Made Easier[™] G



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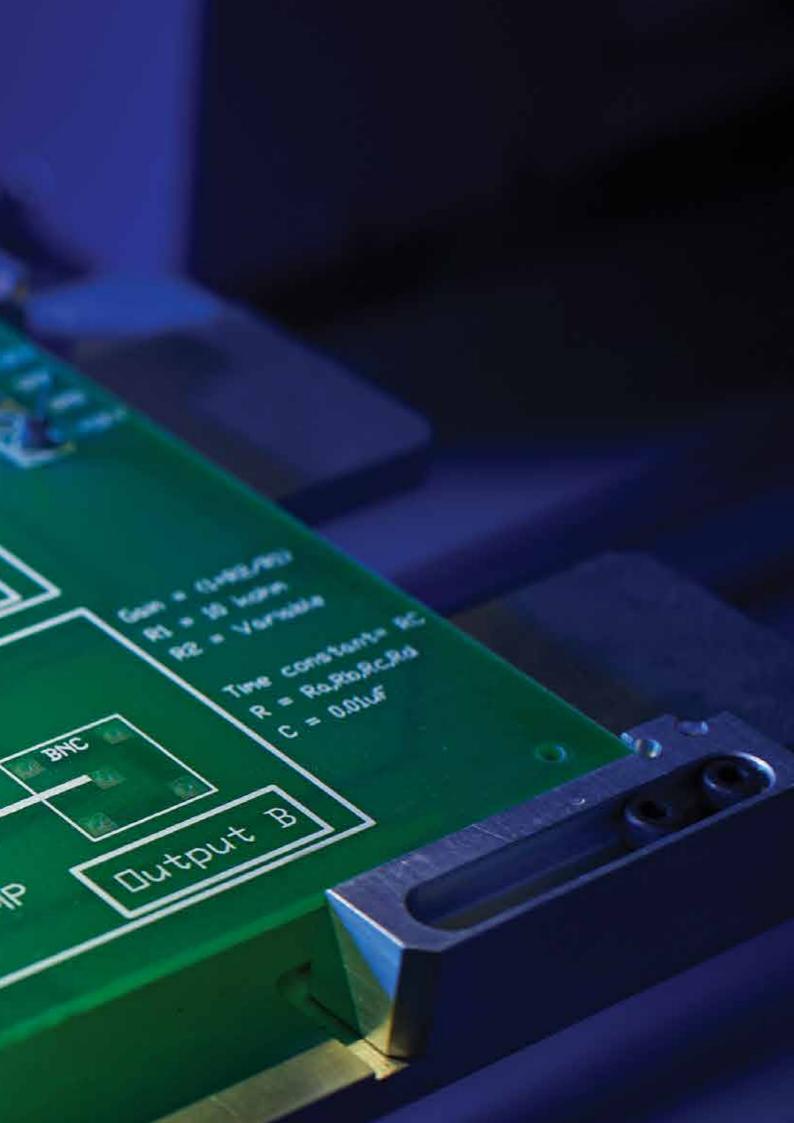
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PROSPECTUS









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"Education is the most powerful weapon used to change the world. Our greatest responsibility as educators is to teach our students to think both intensely and critically. By equipping our students with the right tools, knowledge and skills, they can go out into the world and shape their future.

As a Premier Digital Tech University and being a trendsetter of the private higher learning provider in Malaysia, we are steadfast in preparing our graduates for leadership roles in their respective disciplines and professions."

PROFESSOR DATUK DR. AHMAD RAFI MOHAMED ESHAQ CEO/President, Multimedia University

Engineering at MMU

If you have your heart set on making engineering your career, MMU is the university for you. Listed in the **Top 200 QS World University Rankings** in Electrical and Electronic Engineering for three consecutive years in 2015, 2016 and 2017, MMU offers award-winning, practical and industry-ready degrees that will allow you to make a real and lasting impact as an engineer of the future.

Expertise and knowledge are what we seek to empower our students. We are committed to offer programmes that will enhance your depth and perception as well as employability in the field of Engineering.

With our industry-led curriculum, you will gain not only technical knowledge and skills, but also relevant soft and management skills. Many of your lecturers are professionals and specialists in their fields who will be able to impart real-life experience and solutions to your learning. We also have strong collaborations with global industry leaders who are ready to share their knowledge of cutting-edge innovative technologies to keep you up-to-the-minute with current and future industry needs.

PROMOTING INNOVATION AND ENTREPRENEURSHIP

MMU was the **first private university approved** by the Malaysian government. We adhere to the strictest requirements for a high quality degree; going beyond academic excellence to offer the best, complete and balanced university experience for our students.

A study by Gartner and MSC Malaysia found that MMU is among the **top five universities** preferred by major ICT players for graduate employment - a testament to the quality of our academicians, curriculum, student development programmes and our solid reputation with the industries.

One of the university's primary objectives is to be able to **inspire and innovate others**. We understand that the future lies in technology, and we are adamant to help shape people who will help make a better tomorrow.





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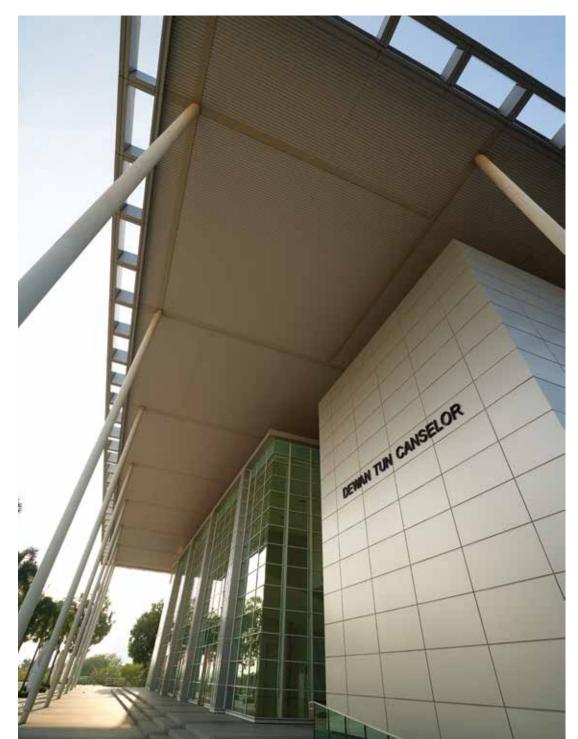
MMU Alumni

"I'm grateful and deeply appreciate the exposure I've received as an MMU student. Without the inspiring opportunities and learning platform that was provided by MMU, I would not have found myself in the shoes of an entreprenure in the clean energy industry today."

KO CHUAN ZHEN Co-founder of +SOLAR (Plus Solar Systems Sdn. Bhd.)



AN AWARD-WINNING UNIVERSITY WITH A GLOBAL OUTLOOK



- Be part of a globally ranked university that is listed in the Top 200 QS World University Rankings and continues to strive with solid breakthrough to be at the 179th spot in QS Asia University Rankings.
- Study alongside 1,500 **international students** from more than 70 countries.
- Experience the best and latest technologies from our collaborations with **major ICT players** such as ZTE, Nokia, Intel, Microsoft, Cisco and Motorola.
- Get exposure to some of the best practices of the world's best universities such as MIT, Stanford, Carnegie Mellon, Harvard, USC and Tokyo University.



Top 200 in QS Asia University Rankings 2018



Awarded Self-Accreditation Status, 2017 Malaysian Qualifications Agency (MQA) 2017



Top 3 - Most Entrepreneurial Private University MOHE Entrepreneurial Award (MEA) 2016



97% Employability within 6 months of graduation

Ministry of Higher Education (MoHE) Tracer Study & MOE Kemaskini Status Pekerjaan 2015



MMU's IT Graduates are most preferred by Malaysian Firms

Frost & Sullivan Asia Pacific (MDEC's Malaysian Digital Talent Study 2017 Final Findings)



Premier Digital Tech University Status, 2017

Ministry of Higher Education (MoHE) and Malaysia Digital Economy Corporation (MDEC)

AN ENTREPRENEURIAL UNIVERSITY WITH INDUSTRY-READY PROGRAMMES



A Well-rounded Education

Be empowered with the fundamentals of your field of study that also incorporate entrepreneurial skills and expertise which are relevant to your respective industries and job markets.

Industry in Campus

Be connected and gain benefit from our state-of-the-art labs established by our industry collaboration with ZTE, Microsoft, Intel and many more.



Ready for Industry

Be enthused with Start-up Schemes from the Entrepreneur Development Centre (EDC) to encourage innovation and entrepreneurship ventures.



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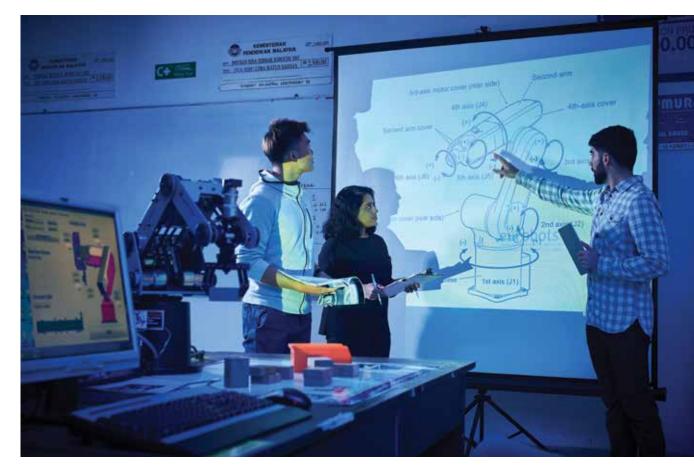
MMU Alumni

"MMU is where I dreamt of having my own business. I built the company together with my roommates in our hostel room and have now managed to expand it to what it is today. The exposure and hands-on experience that MMU graduates have are much better than any other local university graduates."

NOOR HELMI NONG HADZMI CEO and Founder, IX Telecom Sdn. Bhd.

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Engineering







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A UNIVERSITY THAT IS AN INDUSTRY TRENDSETTER

- We offer programmes which are tailored to industry's needs.
- Nearly 50% of our programmes are developed for fast growing industries.
- We produce graduates who are setting new standards in Malaysia's industries. Among our successful alumni are Mohd Nizam Abd Razak, the Creator of BoBoiBoy, who has boosted the animation industry in Malaysia and Tan Aik Keong, Director of Agmo Studio, a multi-award winning mobile app development company.



A VIBRANT AND CONDUCIVE CAMPUS LIFE

- Convenient and comfortable accommodation on-campus and off-campus.
- Intelligent and high-tech labs.
- Digital libraries.
- Set studio and post-production suite.
- Over 100 clubs and societies.
- Extensive infrastructure campus-wide Wi-Fi, health clinics, mosques, 24-hour security, food & beverage outlets and more.
- Comprehensive Sports Centre track & field, indoor sports arena, gym as well as an olympic-sized swimming pool.



Scan this code to view more on our facilities.







TOP MALAYSIAN PRIVATE UNIVERSITY*



* Top 3 in QS Asia University Rankings 2018 among private universities in Malaysia.



Ground-breaking developments in engineering have revolutionised our lives. With exciting new areas as diverse as Telecommunications, Microelectronics, Nanotechnology, Multimedia, Optical Technologies and the dynamics of social media, the career prospects for engineering graduates have never been better. Whatever field of interest you may have in engineering, a degree from the MMU will unlock your potential and kickstart your career as an engineer of the future.

Our mission is to cultivate talents who embrace inquiry, inspiration and innovation via excellent engineering programmes, impactful research and strong industry support.

WHY ENGINEERING AT MMU



One of the **BEST teaching labs** in private universities, equipped with world-class research & teaching facilities



Among the **1st in Malaysia** to offer Nanotechnology

More than 50%

teaching staff are PhD holders and industry professionals

Engineering

More than 40% MMU Engineering students secure jobs **before** graduation and over 97% are employed within 6 months of graduation



Accreditation & Recognition by

Malaysian Qualification Agency (MQA), Engineering Accreditation Council and Board of Engineers Malaysia (BEM)

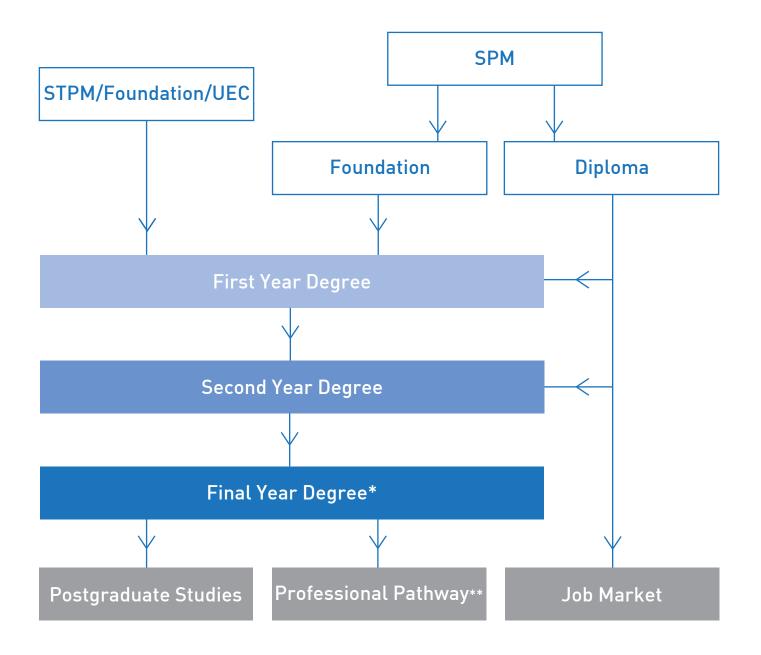


Partnerships with **Global Industry Players** – establishment of Intel Advanced Architecture Lab, Panasonic Computing Lab, Huawei Digital Lifestyle and Innovation Centre, Motorola Wireless Broadband

Technology Lab and ZTE-MMU Regional Training Center

STUDY ROUTE

There isn't just one route to discover and develop your true potential. At MMU, we cater to nearly every possibility.



Final year might differ depending on programme

** Applicable only to Engineering courses



FACULTY OF ENGINEERING

Cyberjaya Campus

Located within Cyberjaya and built on an 80-hectare plot of land with all the advantages of high technology, MMU Cyberjaya is equipped with various intelligent features such as multimedia learning facilities, intelligent building systems, a digital library, and an integrated campus management system. Over 5,000 local and international students have successfully graduated from our Engineering Faculty.



Scan this code to view our faculty video.

Foundation in Engineering

(R/010/3/0087) 12/17 (A8671)

The one-year Foundation in Engineering programme is the preferred route for many Malaysians and international students to access engineering courses in Multimedia University. Set in a campus environment that enriches their preparation for degree studies, the programme's curriculum focuses on delivering preparatory engineering subjects to equip students with strong fundamentals in order to excel with confidence. In addition to analytical and technical knowledge, the programme also focuses on equipping students with critical thinking and interpersonal skills to succeed not only in the undergraduate studies, but more importantly, as independent life-long learners.

After completion of the foundation programme you can opt for a degree programme from either Faculty of Engineering (FOE) or Faculty of Engineering & Technology (FET).

PROGRAMME STRUCTURE FOR FOUNDATION IN ENGINEERING | FOE

Trimester 1

Trimester 2

Trimester 3

- Basic Computing & Programming
- Pre-Calculus
- Trigonometry & Coordinate Geometry
- Mechanics
- Communicative English

- Calculus
- Electricity & Magnetism
- Chemistry
- Introduction to Business Management
- Critical Thinking
- Essential English

- Introduction to Probability & Statistics
- Modern Physics & Thermodynamics
- Academic English

Note: The above programme structure serves as a guide. Courses may differ according to intakes.

Bachelor of Engineering (Hons.) (Electrical)

(R/522/6/0038) 06/19 (MQA/FA4863)

The B.Eng. (Hons.) Electrical programme is a four-year engineering course that prepares students with a broad foundation in a discipline that deals with the generation, transmission, and distribution of electricity. Additionally, electrical engineers are also responsible for the design of related devices such as transformers, generators, power electronics and electric motors.

Students undertake fundamental engineering subjects such as mathematics, computing, electronics and circuit theory before progressing to core electrical subjects such as power generation, transmission and distribution, renewable energy, and energy conversion. Besides that, students are also equipped with knowledge on economics, accounting, management, law, and workplace communication. These subjects are delivered through combined classroom and laboratory work.

Career Prospects: Design Engineer, Project Engineer, Test Engineer, Protection Engineer, Power Engineer, Sales Engineer, High Voltage Engineer, Service Engineer, Electrical Production Engineer, Product Development Engineer, Electrical and Instrument Engineer, PCB Design Engineer, QC Engineer, Field Service Engineer, Electrical Engineering Manager, M&E Engineer, or Oil & Gas Process Engineer, etc.

PROGRAMME STRUCTURE

Year 1	Year 2	Year 3	Year 4
Core			
 Engineering Mathematics 1 Electronics 1 Circuit Theory Field Theory Computer & Program Design Engineering Mathematics 2 Electronics 2 Energy Conversion 1 Instrumentation & Measurement Techniques Algorithm & Data Structure Digital Logic Design Electronics 3 	 Engineering Mathematics 3 Microcontroller & Microprocessor Systems Circuits & Signals Electromagnetics Theory Electrical Engineering Materials Power Transmission & Distribution Advanced Microprocessors Energy Conversion 2 Engineering Mathematics 4 Control Theory 	 Analog & Digital Communications Power System Analysis Power Electronics Switchgear & Protection Electric Power Utilisation & Installation Renewable Energy Technology Capstone Project Industrial Training 	 Project Power Stations High Voltage Engineering Electrical Drives Power System Operation & Control
			 Feedback Control Analysis & Design Robotics & Automation Digital Signal Processing Embedded System Design Parallel Processing & Programming
University Subjects			
	 TITAS (Local)/Bahasa Melayu Komunikasi 2 (International) Workplace Communications 	 Engineer & Society Law for Engineers Hubungan Etnik (Local)/ Pengajian Malaysia 3 (International) Project Management 	 Kebangsaan A/Foreign Language Co-Curriculum Business & Entrepreneurship in Malaysia

Bachelor of Engineering (Hons.) (Electronics)

(R/523/6/0167) 06/19 (MQA/FA4864)

22

The four-year B.Eng. (Hons.) Electronics programme focuses on applying theory and technology to solve real-world engineering problems. In this programme, students start off with fundamental subjects such as circuit and signal analysis, computer programming, control theory, and microprocessors. These subjects form the bedrock for more advanced and specialised topics ranging from analogue electronics, physical electronics, and semiconductor devices to embedded systems and electromagnetic interference.

Engineering knowledge is further supplemented with professional development modules such as workplace communications, management, accounting and engineering ethics. The programme is also designed to provide students with opportunities to undergo practical training in the electronics industry and to obtain research experience through undergraduate research projects.

Career Prospects: Application Engineer, Design Solution Engineer, Research & Development Engineer, Firmware/ Embedded Software Engineer, Test Application Developer, Product Engineer, PCB Design Engineer, Process Engineer, System Integration Engineer, Computer System Architect, or Technical Marketing Engineer.

PROGRAMME STRUCTURE

Year 1	Year 2	Year 3	Year 4
Core			
 Engineering Mathematics 1 Circuit Theory Electronics 1 Computer and Programme Design Field Theory Electronics 2 Digital Logic Design Engineering Mathematics 2 Electronics 3 Algorithms and Data Structures Introduction to Machines & Power Systems Instrumentation and Measurement Techniques 	 Engineering Mathematics 3 Microcontroller and Microprocessor Systems Circuits and Signals Electromagnetic Theory Physical Electronics Computer Organisation and Architecture Engineering Mathematics 4 Control Theory Microelectronic Circuit Analysis and Design Electromagnetic Interference 	 Analog and Digital Communications Power Electronics Digital System Advanced Microprocessors Industrial Training Integrated VLSI Systems Capstone Project 	 Data Communications and Networking Processing and Fabrication Technology Digital Integrated Circuits Project
		 Embedded System Design Semiconductor Devices Object Oriented Programming with C++ 	 Analog Integrated Circuits Operating System Advanced Object-oriented Design with Java Software Engineering Mobile Application Development VLSI System Design and Modelling Technique Parallel Processing & Programming Digital Signal Processing
University Subjects			
	 TITAS (Local)/Bahasa Melayu Komunikasi 2 (international) Workplace Communications 	 Engineer and Society Law for Engineers Hubungan Etnik (Local) Pengajian Malaysia (International) 	 Bahasa Kebangsaan A/ Foreign language Co-Curriculum Business & Entrepreneurship in Malaysia

Project Management

Pengajian Malaysia 3

Bachelor of Engineering (Hons.) (Electronics majoring in Telecommunications)

(R/523/6/0168) 06/19 (MQA/FA4865)

This four-year programme trains future engineers in the design, implementation and management of communication systems for processing and transmitting information, as well as creation of applications for mobile systems and Internetbased services. Students will be exposed to the technical fields of analogue and digital communications, antenna and propagation, mobile and satellite communications, telephony, information theory, data communications, electromagnetic waves, optical communications, 4G technologies and beyond.

In addition, there will be intensive training in engineering mathematics, electronics, circuit and signals, computer and microprocessor systems, data communications and networking, electromagnetics, control theory, programming and power systems. A good coverage of subjects in management, economics, accounting and law is also emphasised. Students are required to undergo industrial training, implement capstone and graduate projects to cultivate skills and capabilities in practical problem-solving, system design, project implementation and management. By so doing, graduates are better prepared to address the challenges of an increasingly complex and rapidly evolving telecommunications industry.

Career Prospects: Telecommunications Network Engineer, Telephony Engineer, Switching and Transmission Engineer, Broadcast Engineer, Wireless Hardware Development Engineer, Radio Frequency Design Engineer, Embedded Wireless Software Engineer, Mobile Applications Developer, Telecommunication Equipment Engineer, Project Manager, or Sales & Customer Support Engineer.

PROGRAMME STRUCTURE				
/ear 1	Year 2	Year 3	Year 4	
Core				
 Engineering Mathematics 1 Circuit Theory Electronics 1 Computer and Program Design Field Theory Electronics 2 Engineering Mathematics 2 Algorithms and Data Structures Introduction to Machines and Power Systems Instrumentation and Measurement Techniques Digital Logic Design Electronics 3 	 Engineering Mathematics 3 Microprocessor systems Circuits and Signals Electromagnetics Theory Analog Communications Computer Organisation and Architecture Information Theory and Error Coding Antenna and Propagation Engineering Mathematics 4 Data Communications and Networking 	 Digital Communications Communications Networks Digital Signal Processing Embedded System Design Capstone Project Industrial Training 	 Project Mobile and Satellite Communications Advanced Networking Techniques Control Theory Optoelectronics and Optical Communications 	
		 Java Technology Random Signal and Network Analysis RF Measurement Principles Object Oriented Programming with C++ Security and Cryptography Electromagnetic Interference Mobile Application Development 	 Parallel Processing and Programming VLSI System Design and Modeling Technique RF Circuit Design 	
University Subjects				
	 TITAS (Local)/Bahasa Melayu Komunikasi 2 (International) 	 Engineer & Society Law for Engineers Hubungan Etnik (Local)/ 	 Kebangsaan A/Foreign Language Co-Curriculum 	

Pengajian Malaysia 3

Project Management

(International)

• Business &

Malaysia

Entrepreneurship in

• Workplace Communications

Bachelor of Engineering (Hons.) (Electronics majoring in Computer)

(R/523/6/0166) 06/19 (MQA/FA4866)

For students aiming towards a professional career in computer systems and information technology, this four-year computer engineering programme provides a complete undergraduate training in the design and development of both the hardware and software aspects of computers and digital systems. The curriculum encompasses specialised training in computer organisation and architecture, data science, operating systems, data communications and networking, high-performance computing, artificial intelligence, microprocessor system, computer security, virtual reality and object-oriented programming.

Not neglected are rigorous grounding in engineering fundamentals such as circuit and signal analysis, field theory, electronics, control theory, power systems, machines and engineering mathematics. Courses in basic management, economics, accounting and law are included to ensure that graduates are well rounded and marketable to future employers. Capping off the programme in the third and fourth years are the industrial training, capstone and graduate projects, which serve to cultivate skills and capabilities in research, system design, practical problem solving and project management.

Career Prospects: Computer Software Engineer, Cybersecurity Engineer, Computer Network Architect, Big data and Cloud-based Computing Engineer, Internet of Things (IoT) Expert, Systems architecture Designer, or Robotics and Automation Engineer.

Year 1	Year 2	Year 3	Year 4
Core			
 Engineering Mathematics 1 Electronics 1 Circuit Theory Field Theory Computer and Programme Design Engineering Mathematics 2 Electronics 2 Introduction to Machines and Power Systems Instrumentation and Measurement Techniques Algorithms and Data Structures Digital Logic Design Electronics 3 	 Engineering Maths 3 Microcontroller and Microprocessor Systems Circuits and Signals Electromagnetic Theory Computer Organisation and Architecture Database Systems Object Oriented Programming with C++ Digital Signal Processing Engineering Mathematics 4 Data Communications and Networking 	 Analog and Digital Communications Operating Systems Advanced Microprocessors Advanced Computer Architecture and Parallel Computing Security and Cryptography Capstone Project Industrial Training 	 Multimedia Technology and Applications Control Theory Digital Computer Design Project
		 Compiler Construction Software Engineering Computer Graphics and Virtual Reality 	 Digital Image and Video Processing Advanced Object-oriented Design with Java Distributed Information System: Embedded System Design Mobile Application Development Parallel Processing and Programming
University Subjects			
	 TITAS (Local)/Bahasa Melayu Komunikasi 2 (International) Workplace Communications Pengajian Malaysia 3 	 Engineer & Society Law for Engineers Hubungan Etnik (Local)/ Pengajian Malaysia (International) Project Management 	 Bahasa Kebangsaan A/ Foreign Language Co-Curriculum Business & Entrepreneurship in Malaysia

PROGRAMME STRUCTURE

Bachelor of Engineering (Hons.) (Electronics majoring in Optical Engineering)

(R2/523/6/0296) 05/22 (MQA/FA4862)

The Bachelor of Engineering (Hons.) Electronics degree majoring in Optical Engineering programme is accredited by the Engineering Accreditation Council (EAC) and recognised by the Board of Engineers (BEM) Malaysia. This four-year undergraduate programme is designed to support industry needs specifically in the area of electronics, photonics, laser technology, photovoltaic systems, optical fibre technology, optical communication systems, solid-state (LED) lighting technology, display technology, electronics and optoelectronics packaging technology.

In view of that, students will undertake subjects related to basic electronics, digital logic design, circuit and signal analysis, computer programming, power systems and machines, microprocessor systems and interfacing, and computer networking and data communications. Students of this major will also take specialised subjects exclusive to this programme such as laser technology, optical waveguides, optoelectronics devices, optical communications systems, optical metrology and testing, fabrication and packaging technology and optical signal processing.

Career Prospects: Technical or managerial leadership role in electronics engineering specialised in optical engineering or in any field benefiting from their engineering knowledge, such as electronics, computer engineering, semiconductors, optical communications, optoelectronics, laser technology, photovoltaic, solid-state lighting, research and academics.

PROGRAMME STRUCTURE

Year 1	Year 2	Year 3	Year 4
Core Engineering Mathematics 1 Electronics 1 Circuit Theory Field Theory Computer and Programme Design Engineering Mathematics 2 Electronics 2 Introduction to Machines and Power Systems	 Engineering Mathematics 3 Microcontroller and Microprocessor Systems Circuits and Signals Electromagnetic Theory Computer Organisation and Architecture Advanced Microprocessors Fundamental of Optics 	 Analog and Digital Communications Optoelectronic Devices Fabrication and Packaging Technology Digital Signal Processing Optical Metrology and Testing Capstone Project Industrial Training 	 Optical Communication Systems Optical Waveguide and Devices Laser Technology and Applications Data Communications and Computer Networking Optical Signal Processing
 Algorithm and Data Structure Instrumentation and Measurement Techniques Digital Logic Design Electronics 3 	 Physical Electronics Engineering Mathematics 4 Control Theory 	• Industrial fraining	 Optical signal Processing Project
Electives			 Photovoltaic Devices and Systems Solid State Lighting Multimedia Technology and Applications

University Subjects

- TITAS (Local)/Bahasa Melayu Komunikasi 2 (International)
- Workplace Communications
- Engineer & Society
- Law for Engineers
- Hubungan Etnik (Local)/
- Pengajian Malaysia 3
- (International)
- Project Management
- Kebangsaan A/Foreign Language
- Co-Curriculum
- Business &
 Entrepreneurship
- Entrepreneurship in Malaysia

25

Note: The above programme structure serves as a guide. Courses may differ according to intakes

Bachelor of Engineering (Hons.) (Electronics majoring in Nanotechnology)

(R2/523/6/0010) 05/20 (MQA/FA3563)

For students planning for professional careers in the fields of microelectronics and nanoelectronics, the four-year nanotechnology programme provides a complete undergraduate training in electronics and nanoelectronics-related fields, such as nanomaterials, nanosciences, nanofabrication technology, nanoelectronic devices, MEMS/NEMS, and diagnostic technology.

In addition, students are also exposed to basic engineering training in circuit and signal analysis, field theory, electronics, control theory, digital logic, communications and engineering mathematics. To better prepare the students for a professional career in engineering, courses in basic management, economics, accounting and law are also included. This programme also provides students with industrial experience and research training by requiring them to complete industrial training and graduate projects.

Career Prospects: Research Engineer/Scientist, Test and Characterisation Engineer, Process and Device Engineer, Product Reliability Engineer, Electronics Engineer, Process Engineer, Quality Control/Assurance Engineer, Failure Analysis Engineer, Field Application Engineer, Telecommunications Engineer, or R&D Engineer.

Year 1	Year 2	Year 3	Year 4
Core			
 Engineering Mathematics 1 Electronics 1 Circuit Theory Field Theory Computer and Programme Design Engineering Mathematics 2 Electronics 2 Introduction to Machines and Power Systems Instrumentation and Measurement Techniques Algorithms and Data Structures Digital Logic Design Electronics 3 	 Engineering Mathematics 3 Microcontroller and Microprocessor Systems Circuits and Signals Electromagnetic Theory Computer Organisation and Architecture Microelectronic Circuit Analysis and Design Advanced Microprocessors Solid State Electronics Engineering Mathematics 4 Control Theory 	 Analog and Digital Communications Optoelectronic Devices Semiconductor Devices Advanced Fabrication Technology Nano-Science Capstone Project 	 Digital Integrated Circuits Diagnostic Technologies Project N/MEMS Data Communications and Computer Networking Nanoelectronic Materials and Devices
Electives			
		 Multimedia Technology and Applications Power Electronics 	
University Subjects			
	 TITAS (Local)/Bahasa Melayu Komunikasi 2 (International) Workplace Communications 	 Engineer & Society Law for Engineers Hubungan Etnik (Local)/ Pengajian Malaysia 3 (International) Project Management 	 Kebangsaan A/Foreign Language Co-Curriculum Business & Entrepreneurship in Malaysia

PROGRAMME STRUCTURE



FACULTY OF ENGINEERING & TECHNOLOGY

Melaka Campus

At the Faculty of Engineering & Technology, we inculcate a strong research culture and promote R&D collaborations with internal and external parties to enable learning innovation.



Scan this code to view our faculty video.

Foundation in Engineering

(R2/010/3/0450) 03/22 (A7857)

The one-year Foundation in Engineering programme is the preferred route for many Malaysians and international students to access engineering courses in Multimedia University. Set in a campus environment that enriches their preparation for degree studies, the programme's curriculum focuses on delivering preparatory engineering subjects to equip students with strong fundamentals in order to excel with confidence. In addition to analytical and technical knowledge, the programme also focuses on equipping students with critical thinking and interpersonal skills to succeed not only in the undergraduate studies, but more importantly, as independent life-long learners.

After completion of the foundation programme, you can opt for a degree programme from either Faculty of Engineering (FOE) or Faculty of Engineering and Technology (FET).

PROGRAMME STRUCTURE FOR FOUNDATION IN ENGINEERING | FET

Trimester 1

Trimester 2

Trimester 3

- Communicative English
- Algebra
- Mechanics
- Physics Lab 1
- Computer Applications & Programming
- General Chemistry
- Trigonometry & Geometry

- Essential English
- Electricity & Magnetism
- Physics Lab 2
- Fundamentals of Business Management
- Critical Thinking
- Calculus

- Academic English
- Modern Physics & Thermodynamics
- Introduction to Probability &
 Statistics

Bachelor of Engineering (Hons.) (Electronics majoring in Telecommunications)

(R/523/6/0100) 12/17 (MQA/FA8758)

This four-year programme trains future engineers in the design, implementation and management of communication systems for processing and transmitting information, as well as creation of applications for mobile systems and Internetbased services. Students will be exposed to the technical fields of analogue and digital communications, antenna and propagation, mobile and satellite communications, telephony, information theory, data communications, electromagnetic waves, optical communications, 4G technologies and beyond.

In addition, there will be intensive training in engineering mathematics, electronics, circuit and signals, computer and microprocessor systems, data communications and networking, electromagnetics, control theory, programming and power systems. A good coverage of subjects in management, economics, accounting and law is also emphasised.

Career Prospects: Telecommunications Network Engineer, Telephony Engineer, Switching and Transmission Engineer, Broadcast Engineer, Wireless Hardware Development Engineer, Radio Frequency Design Engineer, Embedded Wireless Software Engineer, Mobile Applications Developer, Telecommunication Equipment Engineer, Project Manager, or Sales & Customer Support Engineer.

PROGRAMME STRUCTURE

Year 1	Year 2	Year 3	Year 4
Core			
 Computer and Program Design Algorithm & Data Structure Circuit Theory Field Theory Engineering Mathematics I Engineering Mathematics II Electronics I Electronics II Digital Logic Design Electronics III Instrumentation & Measurement Techniques Introduction to Machines & Power Systems 	 Computer Organisation & Architecture Data Communications & Computer Networking Microcontroller & Microprocessor Systems Circuits & Signals Engineering Mathematics III Electromagnetics Theory Control Theory Analog Communications InformationTheory & Error Coding 	 Communications Electronics Project Management for Engineers Antenna & Propagation Electromagnetic Interference Design Project Multimedia & Communications Networks Digital Communications Industrial Training 	 Mobile & Satellite Communications Digital Signal Processing Project
 Knowledge-based Systems Advanced Microprocessors Embedded System Design Practical FPGA Design & Interfacing Optoelectronics & Optical Communications 	 Telemedicine Technology Java Technology Object Oriented Programming with C++ Random Processes & Queueing Theory Semiconductor Packaging & Test Imaging Radar System Digital Wireless Communications 	 Parallel Processing & Programming Radar System Design & Analysis Data & Multimedia Networking 	
University Subjects and Mata P	Pelajaran Umum (MPU)		
Communication Skills/Law/Ethics • Workplace Communications • Law for Engineers • Engineer and Society	 MPU U1 Tamadun Islam & Tamadun Asia (Local) Hubungan Etnik (Local) Bahasa Komunikasi 2 	 MPU U2 Bahasa Kebangsaan A / Any subjects in U2 (Local) Any subjects in U2 (International) 	 MPU U3 Business and Entrepreneurship in Malaysia MPU U4 Co-Curriculum

(International) Pengajian Malaysia 3 (International)

Bachelor of Engineering (Hons.) (Electronics majoring in Robotics & Automation)

(R2/523/6/0035) 11/21 (MQA/FA4749)

The Faculty of Engineering and Technology offers an undergraduate programme leading to the Bachelor of Engineering (Electronics) degree majoring in Robotics and Automation. For students planning on professional careers in the fields of industry automation, this four-year engineering programme provides complete undergraduate training in robotics and automation fields such as advanced robotics, machine vision, applied dynamics, knowledge system and neural computing, digital control system, microprocessor system, automation and power technology.

In addition, the students are also exposed to basic engineering training in circuit and signal analysis, field theory, electronics, control theory, power systems, machines, communications and engineering mathematics. To better prepare the students for the engineering professional career, courses in basic management, economics, accounting and law are also included. This programme also provides students with industrial experience and research training by requiring students to complete industrial training and graduation projects.

Career Prospects: Robotics Engineer, Industrial Automation, Control Engineer, Automotive Engineer, Manufacturing Engineer, Production Engineer, Mechatronics Engineer, Engineering Academician or Researcher.

Year 1	Year 2	Year 3	Year 4
Core			
 Computer and Programme Design Algorithm & Data Structure Circuit Theory Field Theory Engineering Mathematics I Engineering Mathematics II Electronics I Electronics II Electronics III Digital Logic Design Instrumentation & Measurement Techniques Introduction to Machines & Power Systems 	 Computer Organisation & Architecture Microcontroller & Microprocessor Systems Circuits & Signals Engineering Mathematics III Power Technology Electromagnetic Theory Control Theory Engineering Mechanics Analog & Digital Communication 	 Multimedia Technology & Applications Project Management for Engineers Design Project Robotics Automation Machine Vision Industrial Training 	 Manufacturing & Operation Management Advanced Robotics Project
Elective Modules (Choose 4 Sub	jects)		
Elective 1 • Data Communications & Computer Networking • Knowledge-based Systems • Communications Electronics • Semiconductor Packaging & Test • Theory of Machines • Electromagnetic Interference • Introduction to CIM • Digital Signal Processing		Elective 2 Java Technology Advanced Microprocessors Embedded System Design Object Oriented Programming wit Practical FPGA Design and Interfa Quality Engineering Digital Control Systems	
University Subjects and Mata Pe	elajaran Umum (MPU)		
Communication Skills/Law/Ethics • Workplace Communications • Law for Engineers • Engineer and Society	 MPU U1 Tamadun Islam & Tamadun Asia (Local) Hubungan Etnik (Local) Bahasa Komunikasi 2 (International) Pengajian Malaysia 3 (International) 	 MPU U2 Bahasa Kebangsaan A / Any subjects in U2 (Local) Any subjects in U2 (International) 	 MPU U3 Business and Entrepreneurship in Malaysia MPU U4 (FET) Co-Curriculum

PROGRAMME STRUCTURE

Bachelor of Engineering (Hons.) (Mechanical)

(R2/521/6/0027) 10/20 (MQA/FA8758)

B.Eng (Hons.) Mechanical is one of the top in-demand disciplines of engineering. Mechanical engineers are relatively versatile and knowledgeable in various fields (both technical and managerial), which increase their value and demand in the job market. Students enrolling in this course will be equipped with the knowledge and skills to apply principles and fundamentals in Engineering Mathematics, Applied Mechanics, Thermal/Fluid Sciences, and Material Science to solve complex engineering problems.

Career Prospects: Mechanical Engineer, Manufacturing/Operations Engineer, Equipment Engineer, Oil & Gas Engineer, Energy Engineer, Researcher Engineer, Project Engineer.

PROGRAMME STRUCTURE

Year 1	Year 2	Year 3	Year 4
Core			
 Computer & Programme Design Engineering Mathematics I Engineering Mathematics II Basic Electrical Technology Applied Statics Principles of Thermodynamics Strength of Materials Applied Dynamics Materials Sciences Workshop Technology Engineering Drawing I Measurement and Instrumentation 	 Engineering Mathematics III Introduction to Electrical Power and Machines Fluid Mechanics Manufacturing and Operations Management Applied Thermodynamics Engineering Drawing II Mechanical Design I Mechanics of Materials Control Engineering 	 Microprocessor Systems & Interfacing Fluid Dynamics CAD/CAM Computational Method for Mechanical Engineering Mechanical Design II Heat Transfer Integrated Design Project Industrial Training 	 Theory of Machines Industrial Management Mechanical Vibrations Project
Elective Modules (Choose 3 Su	bjects)		
 Semiconductor Packaging & Test Energy Technologies Finite Element Method Quality Engineering 	 Tribology Operations Research Computational Fluid Dynamics Robotics and Automation 	 Materials Engineering Ergonomic and Human Factor Heating, Ventilation and Air Conditioning Systems Internal Combustion Engines Quality Management 	
University Subjects and Mata P	Pelajaran Umum (MPU)		
Communication Skills/Law/Ethics • Workplace Communications	<i>MPU U1</i> • Tamadun Islam & Tamadun	MPU U2 • Bahasa Kebangsaan A / Any	MPU U3 • Business and Entrepreneurship

- Law for Engineers
- Engineer and Society
- Tamadun Islam & Tamadun
- Asia (Local) • Hubungan Etnik (Local)
- Bahasa Komunikasi 2 (International)
- Pengajian Malaysia 3 (International)
- Bahasa Kebangsaan A / Any subjects in U2 (Local)
- Any subjects in U2 (International)
- MPU U4 (FET)
 - Co-Curriculum

in Malaysia

31

Diploma in Electronic Engineering

(R/523/4/0203) 01/20 (A5832)

This course suits those who are interested in mainstream electronic design and support. The diploma programme is designed to provide students with a good understanding of the electronics-related fields as well as offer opportunities to undergo practical training in the industry to obtain hands-on experience in the final year projects.

After completion of the diploma programme, you can opt for a related degree programme from either Faculty of Engineering (FOE) or Faculty of Engineering and Technology (FET).

PROGRAMME STRUCTURE

Trimester 1	Trimester 2	Trimester 3	Trimester 4
 Engineering Mathematics 1 Electric Circuit Computer Applications for Engineering English Analog Electronics 1 	 Engineering Mathematics 2 Digital Electronics Analog Electronics 2 Contemporary Management & Entrepreneurship U4 	 Analog Electronics 3 Field Theory U2 	 Computer Programming Electrical Measurement and Instrumentation Technique Network Analysis Industrial Electronics U3
Trimester 5	Trimester 6	Trimester 7	
 Microcontroller Technology Power Electronics Project - Part 1 Effective Communication Skills U1 	• Industrial Training	 Analog and Digital Communication System Electrical Machines and Power Systems Project - Part 2 Elective 	
University Subjects	_	_	_
U1 – Pengajian Malaysia 2 (Local) / Bahasa Melayu Komunikasi 1 (International)	U3 – Introduction to Cultural Practices in Malaysia / Fundamental of Islamic		

(International) U2 – Basic Academic Writing / Grooming and Professional Etiquette / Chinese for Basic Communication / Korean for Basic Communication / French for Basic Communication / Bahasa Kebangsaan A U3 – Introduction to Cultural Practices in Malaysia / Fundamental of Islamic Leadership in Malaysia / Family and Society in Malaysia U4 – Personal Social Responsibility

MINIMUM ENTRY REQUIREMENTS

Foundation in Engineering

- Pass SPM / O-level or its equivalent with minimum grade C in at least five (5) subjects, inclusive of English, Mathematics and one Engineering-related subjects; OR
- Pass UEC with minimum grade B in at least four (4) subjects inclusive of Mathematics, English and one Engineeringrelated subjects; OR
- Other equivalent qualification recognised by the Malaysian Government.

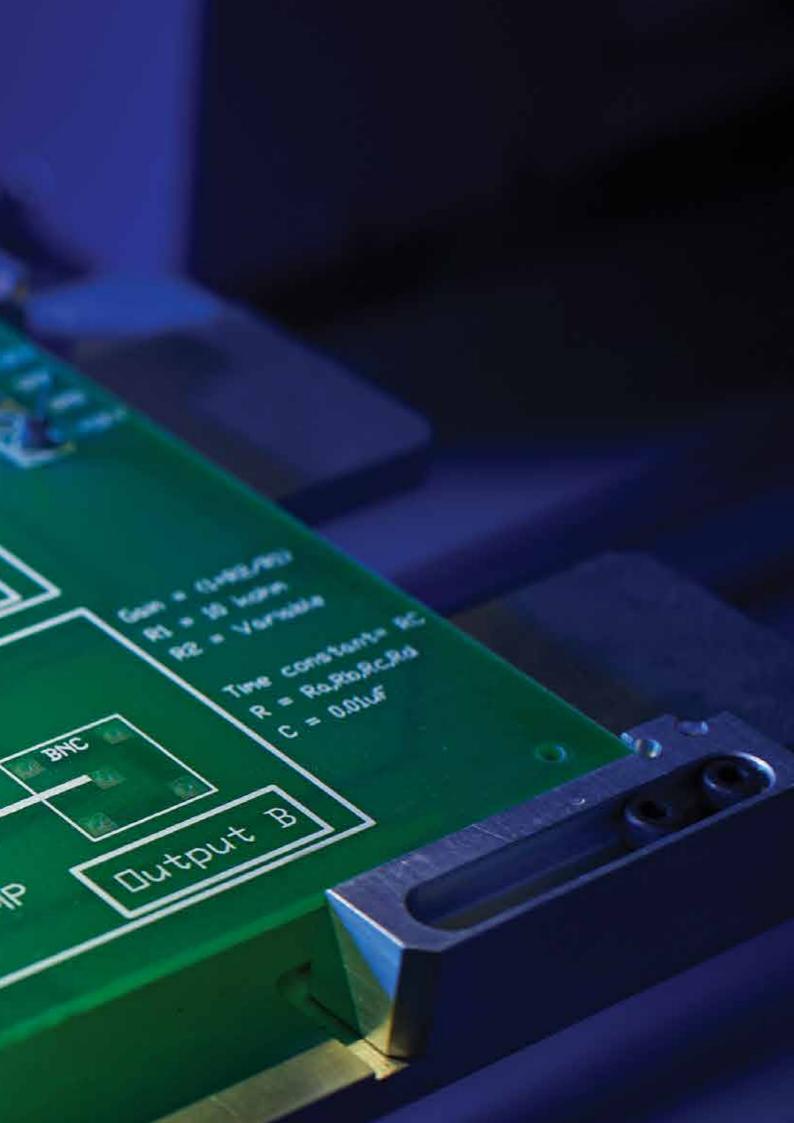
Diploma in Electronic Engineering

- Pass SPM / O-level or its equivalent with minimum grade C in at least four (4) subjects, inclusive of Mathematics and one Science / Engineering subject and a pass in English; OR
- Pass UEC with minimum grade B in at least three (3) subjects inclusive of Mathematics and one Science subject; OR
- Pass Certificate in a related field from a recognised institution.

Bachelor of Electrical (Hons.) / Electronics (Hons.) / Mechanical Engineering (Hons.)

- Pass Foundation / Matriculation in a related field from a recognised institution; OR
- Pass STPM / A-Level or its equivalent with three (3) Principals inclusive of Mathematics and Physics; OR
- Pass UEC with minimum grade B in at least five (5) subjects inclusive of Mathematics and Physics; OR
- Pass Diploma in a related field from a recognised institution.

 All programmes offered by Faculty of Engineering and Faculty of Engineering & Technology require a minimum score of 5.0 in IELTS or its equivalent. Global. Entrepreneurial. Trendsetter.



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