MMU®
MULTIMEDIA UNIVERSITY

LEADING THE
DIGITAL FUTURE

ENGINEERING

TM GROUP

WELCOME TO MMU!

There is U in MMU

At MMU, we are dedicated to cultivating the digital leaders of tomorrow, just like you. Our university has a dynamic and vibrant community, offering you an intellectual adventure to uncover your true potential and make a difference in this world.

Education is a powerful tool for transformation, empowering individuals to achieve their biggest dreams. We firmly believe that there is "U in MMU," and that's why the 'U' (you) element is vital in this institution. Your distinct energy and perspective will enrich our community to drive us forward.

With a wealth of opportunities for learning and growth, MMU is where your journey to success begins. Embrace the spirit of discovery, explore our offerings, and unleash your potential as a future digital leader.

Join us at MMU, where 'U" are at the heart of everything we do. Your journey towards greatness starts here!

I wish you all the best. May you find the success that you are seeking.

Thank you.

Prof. Dato' Dr. Mazliham Mohd Su'ud
President & CEO
Multimedia University

MMU®
MULTIMEDIA UNIVERSITY

ENGINEERING

WELCOME TO ENDLESS ENGINEERING POSSIBILITIES

If you have the passion in making engineering as your career, MMU is the university for you.

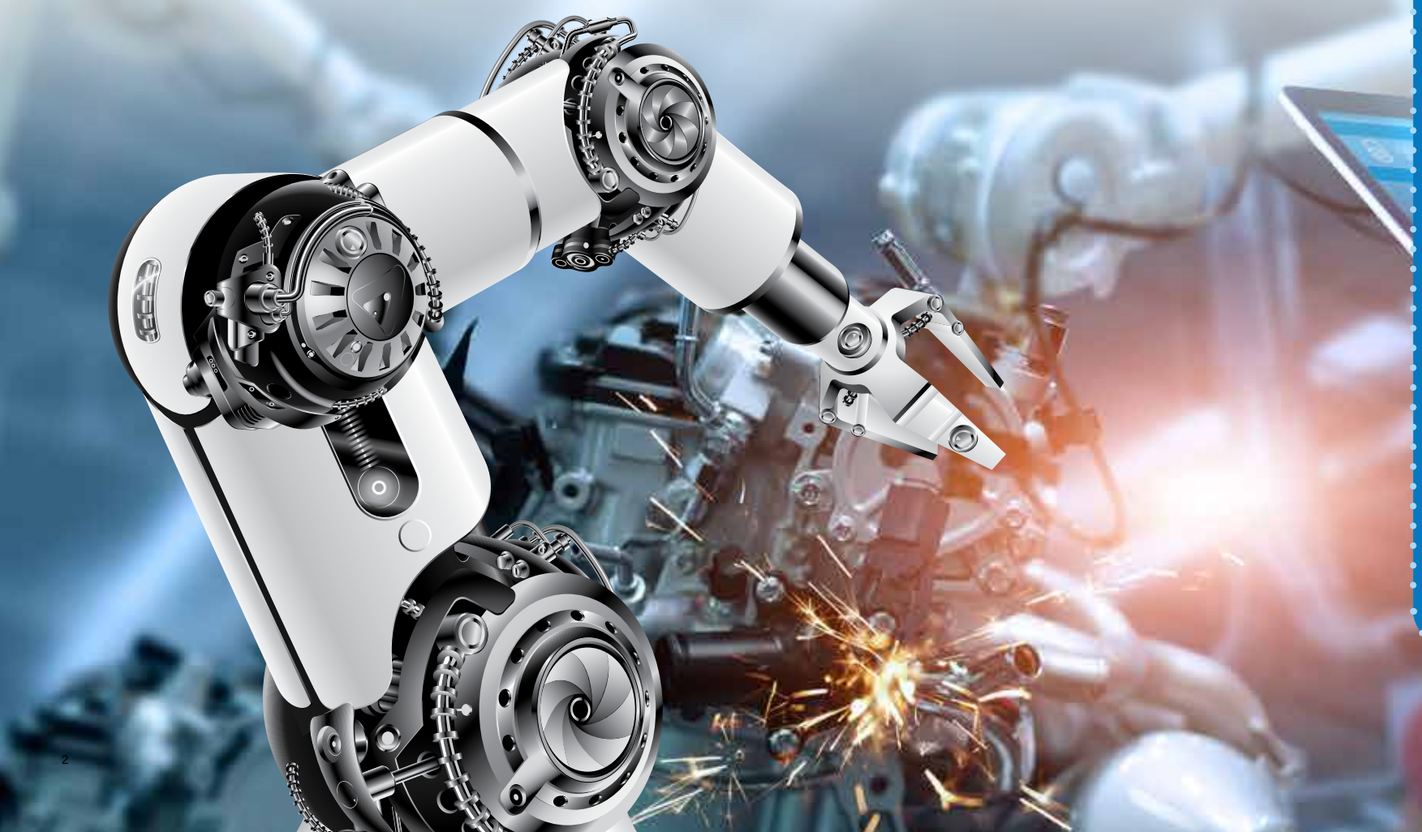
Listed in the Top 200 QS Asia University Rankings since 2017, MMU offers fully-accredited and industry-sought-after engineering degrees that will allow you to make real and lasting impacts as an engineer of the future.

Throughout your journey with us, you will be empowered with knowledge and skills to become competent engineers with numerical and problem-solving skills. Our engineering programmes enhance your employability and prepare you for the world of cutting edge engineering and its applications.

Our industry-led curriculum and industry-based learning approach ensure that graduates gain not only technical expertise, but also relevant managerial and soft skills, enabling them to pursue non-engineering careers in fields as diverse as business and management, finance, IT, law, media and consulting.

You will be mentored by expert instructors who are able to share practical experience and valuable insights. Our programmes also give you the opportunity to study contemporary modules in artificial intelligence, blockchain, cybersecurity, data analytics, 5G, and Internet of Things (IoT). Our strong collaborations with global industry players will broaden your horizon and keep you ahead with current as well as future industry needs.

So, join us and be future-proofed!



WHY STUDY ENGINEERING AT MMU

- **Accredited Programs:** All engineering programs are **fully accredited** by the **Engineering Accreditation Council (EAC),** ensuring recognised qualifications.
- **Established Legacy:** With a foundation since 1997, the faculty has produced over **10000 engineering graduates,** showcasing experience and commitment.
- **Successful Alumni:** Many graduates from the faculty have **achieved high-level** positions in the industry, **both locally and internationally,** reflecting the effectiveness of the faculty's education.
- **Highly Qualified Staff:** About **90%** of teaching staff **hold a PhD,** providing expertise, while many possess professional qualifications for practical industry knowledge.
- **High Employability:** Fresh graduates enjoy an **employability rate over 91%,** highlighting the value employers place on their skills and knowledge.
- **World-Class Facilities:** The faculty offers state-of-the-art research and teaching facilities, with **a 5G-enabled campus,** fostering cutting-edge learning experiences.
- **Dynamic Industry Partnerships:** Forge your path alongside with global leaders such as Intel, Panasonic, Huawei, Motorola, ZTE, and Infineon. Benefit from exclusive insights, internships, and collaborative projects that prepare you for the demands of the ever-evolving tech landscape.
- **Cutting-Edge Curriculum:** Gain a competitive edge by preparing for AWS Solutions Architect, Microsoft Azure AI Engineer, and ZTE Technology exams, seamlessly integrated into our curriculum. Prepare for these prestigious exams alongside your academic studies, gaining valuable skills and expertise directly applicable in today's tech-driven industries.
- **Accredited Excellence:** Our program is accredited by prestigious bodies including MQA, EAC, ETAC, and BEM, ensuring quality education and industry relevance.
- **Pioneering 5G Research:** Dive into groundbreaking 5G innovation at our ZTE-MMU NexGen Communication Engineering hub, pioneering the future of telecommunications in Southeast Asia.
- **Global Recognition:** With Washington Accord accreditation, your qualifications are recognized worldwide, opening doors to opportunities across Australia, Canada, Ireland, Japan, South Korea, New Zealand, Russia, Singapore, South Africa, Sri Lanka, China, Turkey, the UK, the USA, and more.

AN AWARD-WINNING UNIVERSITY WITH A GLOBAL OUTLOOK

- **Top 10** among private Malaysian universities in QS World Ranking University Rankings 2024, Top 400 in QS World Ranking by Subject (electrical and electronic) since 2015
- Awarded **Self-Accreditation Status**, 2017 by Malaysian Qualification Agency
- **Top 10** among Malaysian Private Universities in Times Higher Education (THE) Asia University Rankings 2024.
- Awarded the **5-Star Rating in the SETARA** by Ministry of Higher Education (MOHE)
- Awarded **CXP Best Customer Experience Awards 2021, 2022 & 2023**
- Awarded **Platinum Award** under the Education and Learning at **Putra Brand Awards 2023**
- **MMU's IT graduates are the most preferred by Malaysian firms-** Frost& Sullivan Asia Pacific (MDEC's Malaysian Digital Talent Study 2017 Final Findings)
- Awarded **Premier Digital Tech Institution (PDTI) Status** since 2017 by Ministry of Higher Education (MoHE) and Malaysia Digital Economy Corporation (MDEC)
- **Employer's Preferred University** awarded by the Talentbank for three consecutive years from 2022, 2023 & 2024 (6 star in Communication and Broadcasting)
- Awarded **Best Institution Award** at the Anugerah Keusahawanan KPT 2023

Create your success story here!

Multimedia University (MMU) is a leading university in Malaysia and we are also listed in global rankings namely QS World University Rankings 2024 and Times Higher Education (THE) World University Rankings 2024. At MMU, our diversity is what makes us unique where you will study alongside with approximately 1,400 international students from 70 countries.

Not only that, you will also experience the best and latest technologies from our collaborations with major ICT players such as ZTE, Huawei, Nokia, Intel, Microsoft, Cisco, Motorola and others. Expand your study experience through our international linkages with abroad universities such as Northumbria University, Western Sydney University, University of Southern Queensland, Auckland University of Technology, Hull University, Manchester Metropolitan University, University of Essex and many more.

Ground-breaking developments in engineering have revolutionised our lives. With exciting new areas as diverse as Telecommunications, Microelectronics, Nanotechnology, Multimedia, Optical Technologies, Robotics and Automation, Mechanical Technologies, 5G 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.

RESEARCH-LED INDUSTRY-DRIVEN UNIVERSITY

Due to its unique niche as a research-led industry-driven university (RIU), MMU currently has the privilege of serving as one of the nation's leading talent incubators. The university takes immense pride in nurturing and growing students in the digital talent pipeline into competent and responsible members of the workforce, who collectively support both TM's and the nation's growth areas.

The 10 growth areas are Fixed Mobile Convergence (FMC)/ Mobile Content Play, New Convergence growth, SME Digital Ecosystem, Cyber-Security, Smart Services Cloud, Submarine Cables, Content Delivery Network (CDN) dan Data Centre.

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 on Campus

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

Ready for Industry

Be enthused with Start-up Schemes from the Entrepreneurship Development Centre (EDC) and nurture your entrepreneurship mindset.

We offer programmes which are tailored to the industry's needs.

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), Muhammad Usamah Zaid Yasin (Founder & Executive Director of Wau Animation that produces Ejen Ali), Tan Aik Keong (Director of Agmo Studio, a multi-award winning mobile app development company), Ko Chuan Zhen (CEO and co-founder of Plus Xnergy, a multi-award winning clean energy company in Malaysia) and many more.

PREPARING GRADUATES TO BE INDUSTRY READY AND VERSATILE

Gaining Industrial Experience Via I-CADET

The i-Cadet Programme is an initiative of MMU's Industry-University Partnership Programme, which aims to groom students into industry-ready graduates from the moment they began their degree programmes.

Through this initiative, MMU students would be groomed into industry-ready graduates tailored for their industries of choice. The programme will match students with suitable companies, and then, via a series of meetings and projects, would provide them with the actual working environment within their chosen company.

Developing Well Balanced Graduates Through PERMATA DUNIA PERSONA

MMU is deeply involved with the proper development and realization of human capital potential, as this would enable the university to satisfy the needs of the industries for capable manpower.

Our goal is to produce well-balanced graduates of good character that possess desirable qualities, such as having empathy, sensitivity, creativity, readiness, and resilience, as well as having sufficient technical competence. Such graduates from MMU are referred to as our Permata Dunia, and we are confident that such personages would become capable future leaders for their nation as well as their communities.

We contend that MMU is the best place for student development as we continually strive to bring out the best in each student; we imbue in them with deep knowledge of their respective fields of expertise via lectures, co-curricular activities, development initiatives, and lifestyle choices. MMU is fully committed to making every student's time in the university the best time of their lives.

Expanding Horizon With BYOC

Build Your Own Curriculum (BYOC) is a concept to enable students to imbue additional value into their graduation qualifications so that, upon completion of their studies, they would have better chances of having a career path that is not just financially rewarding, but also fulfilling.

The key to BYOC is allowing students to build curriculum in a guided and yet flexible way. Students may stack up courses based on the free elective slots they have, or by choosing a collective minor package offered by the faculties.

Fostering Future Entrepreneurs through eCadet

Our university is dedicated to nurturing dynamic and resilient student entrepreneurs, empowering them to become founders of high-value startups. Through the eCadet initiative, students will receive early exposure and invaluable insights into the realities of the business world and its ecosystem.

They will have the opportunity to cultivate professional networks, receive expert guidance, and enhance their startup skills by connecting with startups, companies, agencies, and accelerators.

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

PERMATA DUNIA TAKES ON THE WORLD

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

Noor Helmi Nong Hadzmi
Bachelor of Engineering (Hons.) Electronics Majoring in Telecommunications, 2003

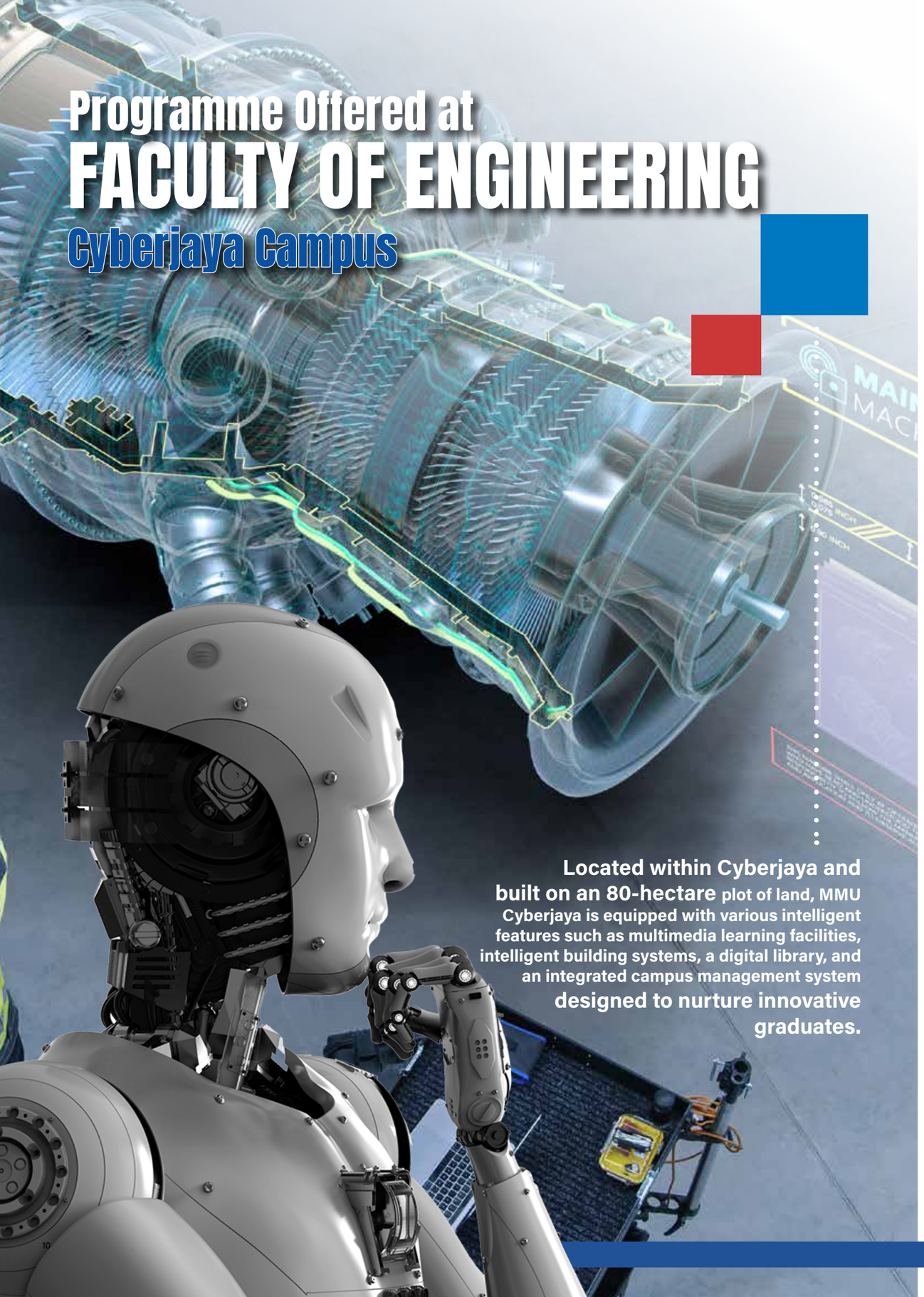
Founder/Chief Executive Officer
IX Telecom

MMU for me was not just about the technical courses and training I received in engineering; more than that, it was the experiences, friendships and character-building that have shaped me into who I am as a human being.

Dr. Koay Jun Yi
Bachelor of Engineering (Hons.) Electronics Majoring in Telecommunications, 2004

Postdoctoral Fellow, Academia Sinica Institute of Astronomy and Astrophysics, Taiwan (Part of the international team that captured the first black hole image)

Programme Offered at
FACULTY OF ENGINEERING
Cyberjaya Campus



Located within Cyberjaya and built on an 80-hectare plot of land, 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 designed to nurture innovative graduates.

Foundation in Engineering

(R2/010/3/0087) 12/22 (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

Trimester 1	Trimester 2	Trimester 3
• Algebra and Trigonometry • Mechanics • Communicative English • Critical Thinking • Physical Computing	• Calculus and Linear Algebra • Essential English • Chemistry • Electricity and Magnetism • Introduction to Business Management • STEM Project	• Academic English • Modern Physics and Thermodynamics • Introduction to Probability and Statistics

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

Bachelor of Engineering (Hons.) Electrical

(R2/522/6/0038) 06/26 (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. With the recent paradigm shift towards renewable and sustainable energy, the prospect for electrical engineers is even brighter. Additionally, electrical engineers are also responsible for the design of smart grids, battery management systems, 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 system analysis and high voltage engineering. In the final year, the students can specialize in either electric vehicle engineering or energy management. Besides that, students are also equipped with knowledge on Artificial Intelligence (AI), Internet of Things (IoT), cybersecurity, robotics and automation, economics, accounting, management, law, and workplace communication. These skills are developed through a holistic combination of various forms of learning activities.

Career Prospects: Design Engineer, Project Engineer, Test Engineer, Protection Engineer, Power Engineer, Electric Vehicle Validation Engineer, Electric Vehicle Systems Integration Engineer, Charging Infrastructure Engineer, Battery Engineer, Energy Manager, Solar Consultant, 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			
• Electronics I • Circuit Theory • Engineering Mathematics I • Electronics II • Energy Conversion I • Field Theory • Engineering Mathematics II • Digital Logic Design • Electronics III	• Computer and Program Design • Microcontroller and Microprocessor Systems • Circuits and Signals • Electromagnetic Theory • Engineering Mathematics III • Algorithms and Data Structures • Instrumentation and Measurement Techniques • Power Transmission and Distribution • Energy Conversion II • Industrial Mathematics	• Power Electronics • Control Theory • Power System Analysis • Project Management • Analog and Digital Communications • Embedded IoT Systems and Application • Electrical Engineering Materials • Electric Power Utilization and Installation • Capstone Project • Industrial Training	• Project • Power Stations • High Voltage Engineering • Electrical Drives **Specialisation: Electric Vehicle Engineering** • Electric Vehicle Technology • Electric Vehicle Charging Station Planning for Installation **Specialisation: Energy Management** • Renewable Energy Technology • Energy Management and Auditing
ELECTIVES			
			• Artificial Intelligence Systems & Applications • Cybersecurity • Introductory Mobile Programming • Digital Signal Processing • Advanced Microprocessors
UNIVERSITY SUBJECTS AND MATA PELAJARAN UMUM (MPU)			
• Communication Skills: English and Business Communications in the Digital Age • Character Building Program: Character Building and Character Development	MPU courses: U1 - Falsafah dan Isu Semasa / MPU2133 Bahasa Melayu Komunikasi 1	U2/U3 - Bahasa Kebangsaan A / Any other courses in the U2 or U3 category	U4 - Co-Curriculum

Note: The above programme structure serves as a guide. Courses may differ according to intakes.
***** Subject to be offered by faculty.***

Articulation Pathway:

The University Of Queensland
AUSTRALIA

Bachelor of Engineering (Hons.) (Electronics)

(R2/523/6/0167) 06/26 (MQA/FA4864)

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 Internet of Things (IoT) systems, artificial intelligence (AI) systems & applications, cybersecurity, robotic & automation 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, AI Engineer, IoT Specialist, System Test Engineer or Technical Marketing Engineer.

PROGRAMME STRUCTURE

CORE

Year 1

- Engineering Mathematics I
- Electronics I
- Circuit Theory
- Field Theory
- Computer & Program Design
- Engineering Mathematics II
- Electronics II
- Introduction to Machines and Power Systems
- Instrumentation & Measurement Techniques
- Algorithms and Data Structures
- Digital Logic Design
- Electronics III

Year 2

- Engineering Mathematics III
- Circuits and Signals
- Electromagnetic Theory
- Microcontroller and Microprocessor Systems
- Physical Electronics
- Microelectronics Circuit Analysis and Design
- Electromagnetic Interference
- Computer Organization and Architecture
- Industrial Mathematics
- Control Theory

Year 3

- Analog and Digital Communications
- Digital System
- Power Electronics
- Integrated VLSI Systems
- Advanced Microprocessors
- Capstone Project
- Industrial Training

Year 4

- Project
- Digital Integrated Circuits
- Processing and Fabrication Technology
- Data Communications and Computer Networking

ELECTIVES

IC Design
- VLSI System Design and Modelling Technique
- Analog Integrated Circuits
- Semiconductor Devices

Embedded Technology
- Embedded IoT Systems and Application
- AI System & Application
- Object Oriented Programming with C++

Multimedia Technology
- Software Engineering
- Object Oriented Programming with C++
- Advanced Object-oriented Design with Java
- Operating System
- Cybersecurity
- Multimedia Technology and Applications
- Digital Signal Processing
- Introductory Mobile Programming

Nanotechnology
- Diagnostic Technology
- N/MEMS
- Semiconductor Devices

Data Engineering
- Introductory Data Science
- Introductory Data Visualization
- AI System & Application

Note: Elective subjects are subject to change by the faculty. Choose any 3 subjects during year 3 and year 4.

UNIVERSITY SUBJECTS AND MATA PELAJARAN UMUM (MPU)

- Communication Skills: English and Business Communications in the Digital Age
- Character Building Program: Character Building and Character Development

MPU courses:
U1 - Falsafah dan Isu Semasa / MPU2133 Bahasa Melayu Komunikasi 1

U2/U3 - Bahasa Kebangsaan A / Any other courses in the U2 or U3 category

U4 - Co-Curriculum

Note: The above programme structure serves as a guide. Courses may differ according to intakes.
***** Subject to be offered by faculty.***

Articulation Pathway:

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

(R2/523/6/0168) 06/26 (MQA/FA4865)

With graduates' employability in mind, this four-year programme is designed in consultation with industry experts, who contribute to the ongoing development of the programme, keeping it current and relevant to prepare you for an exciting career in telecommunications and computing. Combining fundamental theories with practical experience, our programme equips graduates with competency in the design, implementation, and management of communication systems for information processing and transmission, as well as creation of applications for mobile devices and Internet-based services.

The programme focuses on mobile communications and computing, beginning with intensive, broad-based coverage of engineering mathematics, electronics, circuit and signals, networking, computer and microprocessor systems, and power systems, followed by advanced modules such as industrial mathematics, digital signal processing, communication systems and networks, object-oriented programming, embedded Internet of Things (IoT) systems, artificial intelligence (AI) and cybersecurity. Together with non-technical subjects such as project management, workplace communications and law, as well as the opportunity to undergo industrial training, capstone and graduate projects cultivate graduates with employable skills to address the challenges of the 5G and big data era.

Career Prospects: Wireless System Engineer, Cellular Systems Engineer, AI Engineer, IoT Specialist, Big Data Engineer, Network Engineer, System Test Engineer, Hardware Development Engineer, Radio Frequency Design Engineer, Embedded Wireless Software Engineer, Mobile Applications Developer.

PROGRAMME STRUCTURE

CORE

Year 1

- Engineering Mathematics I
- Circuit Theory
- Electronics I
- Computer & Program Design
- Field Theory
- Electronics II
- Engineering Mathematics II
- Algorithms & Data Structures
- Introduction to Machines and Power Systems
- Instrumentation & Measurement Techniques
- Digital Logic Design
- Electronics III

Year 2

- Engineering Mathematics III
- Microcontroller and Microprocessor Systems
- Circuits & Signals
- Electromagnetic Theory
- Fundamental of Wireless Communications
- Computer Organization & Architecture
- Information Theory and Error Coding
- Antenna & Propagation
- Industrial Mathematics
- Data Communications & Networking

Year 3

- Digital Communications
- Communications Networks
- Digital Signal Processing
- Embedded IoT Systems and Application
- Capstone Project
- Industrial Training

Year 4

- Project
- Analog Communications
- Advanced Networking Techniques
- Control Theory
- Optoelectronics & Optical Communications

ELECTIVES

RF/RAN Network Planner/ Satellite Communications
- RF Measurement Techniques
- Random Signal and Network Analysis
- RF Circuit Design
- Electromagnetic Interference
- Radio Network Planning Towards 5G
- Satellite Communications

Multimedia Technology
- Object Oriented Programming with C++
- Cybersecurity
- Introductory Mobile Programming
- AI System & Application
- Java Technology
- Software Engineering
- Multimedia Technology and Applications

Data Engineering
- Introductory Data Science
- Introductory Data Visualization
- AI System & Application

IC Design
- Digital System
- VLSI System Design & Modeling Technique

Embedded Technology
- AI System & Application
- Object Oriented Programming with C++

Note: Elective subjects are subject to change by the faculty. Choose any 3 subjects during year 3 and year 4.

UNIVERSITY SUBJECTS AND MATA PELAJARAN UMUM (MPU)

- Communication Skills: English and Business Communications in the Digital Age
- Character Building Program: Character Building and Character Development

MPU courses:
U1 - Falsafah dan Isu Semasa / MPU2133 Bahasa Melayu Komunikasi 1

U2/U3 - Bahasa Kebangsaan A / Any other courses in the U2 or U3 category

U4 - Co-Curriculum

Note: The above programme structure serves as a guide. Courses may differ according to intakes.
***** Subject to be offered by faculty.***

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

(R2/523/6/0166) 06/26 (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 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 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.

PROGRAMME STRUCTURE

Year 1

CORE

- Engineering Mathematics I
- Electronics I
- Circuit Theory
- Field Theory
- Computer & Program Design
- Engineering Mathematics II
- Electronics II
- Introduction to Machines and Power Systems
- Instrumentation & Measurement Techniques
- Algorithms and Data Structures
- Digital Logic Design
- Electronics III

Year 2

CORE

- Engineering Mathematics III
- Microcontroller and Microprocessor Systems
- Circuits and Signals
- Electromagnetic Theory
- Computer Organization and Architecture
- Object Oriented Programming with C ++
- Digital Signal Processing
- Industrial Mathematics
- Data Communications and Networking

Year 3

CORE

- Operating Systems
- Advanced Microprocessors
- Cybersecurity
- Capstone Project
- Software Engineering
- Industrial Training

Specialisation: Internet of Things
- Database Fundamentals
- Embedded IoT System with Cloud Integration
- End to end AI Systems

Specialisation: Cloud Practitioner
- Database Fundamentals
- Database and Cloud Security
- System Administration

Year 4

CORE

- Project
- Control Theory

ELECTIVES

Computer Engineering
- Multimedia Technology and Applications
- Digital Image and Video Processing
- Advanced Object-Oriented Design with Java
- Java Technology
- Introductory Mobile Programming
- AI Systems & Applications
- Introductory Data Science
- Introductory Data Visualization

Electronics / Communications
- Power Electronics
- Digital System
- VLSI System Design and Modelling Technique
- Analog and Digital Communications

Note: Elective subjects are subject to change by the faculty. Choose any 3 subjects during year 3 and year 4.

UNIVERSITY SUBJECTS AND MATA PELAJARAN UMUM (MPU)

- Communication Skills: English and Business Communications in the Digital Age
- Character Building Program: Character Building and Character Development

MPU courses:
U1 - Falsafah dan Isu Semasa / MPU2133 Bahasa Melayu Komunikasi 1

U2/U3 - Bahasa Kebangsaan A / Any other courses in the U2 or U3 category

U4 - Co-Curriculum

Note: The above programme structure serves as a guide. Courses may differ according to intakes.
***** Subject to be offered by faculty.***

Bachelor of Science (Honours) Intelligent Robotics

(N/523/6/0318) 01/26 (MQA/PSA14238)

The Bachelor of Science (Honours) Intelligent Robotics is a 3-year programme that strikes on exquisite balance between the fundamentals of engineering and hands-on, practical skills. This unique multi-disciplinary program combines electronics, robotics, artificial intelligence, automation, and computer programming. It adopts a modern learning approach with early exposure to real world applications. Graduates will be agile knowledge workers in the IR4.0 age and beyond, highly sought after by the industry.

Career Prospects: RRobotics System Designer/Programmers, AI and Machine Learning Developer, Embedded System Designer, Control and Automation Specialist, Field Application Technologist, Printed Circuit Board (PCB) Designer, Production and Planning Engineer, Industry 4.0 Technologist

PROGRAMME STRUCTURE

Year 1

CORE

- Engineering calculus
- Computer and programming
- Micro-controllers & micrprocessors
- Electrical circuits
- Basic electronics
- Differential equations
- Digital design
- Linear algebra and numerical methods
- Rapid modelling
- Analog electronics

Year 2

CORE

- Linear systems & signals
- Electromagnetics with applications
- Electrical machines and power systems
- Robotics – Machine design and mechanisms
- Introduction to artificial intelligence
- Actuators and sensors
- Electronics instrumentation
- Robotics – Modelling and control
- Feedback control
- Advanced programming
- Internship

Year 3

CORE

- Mobile robots and drones
- Machine learning concepts and technologies
- Project I
- Project II
- Machine vision & image processing

ELECTIVES

Elective 1
Elective 2
Elective 3
Elective 4
Elective5

Hardware Track
- IOT systems & applications
- Electronic prototyping and PCB layout
- Making embedded systems
- Industrial automation and digital control
- Signal and power integrity

Software Track
- Cybersecurity
- Software engineering fundamentals
- Introduction to data science
- Neural networks and deep learning
- Robot programming

UNIVERSITY SUBJECTS AND MATA PELAJARAN UMUM (MPU)

- Communication Skills: English and Business Communications in the Digital Age
- Character Building Program: Character Building and Character Development

MPU courses:
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U2/U3 - Bahasa Kebangsaan A / Any other courses in the U2 or U3 category

U4 - Co-Curriculum

Note: The above programme structure serves as a guide. Courses may differ according to intakes.
***** Subject to be offered by faculty.***

** Malaysians who have fulfilled the Bahasa Malaysia requirement (either having passed Bahasa Malaysia with a credit at SPM level; or having passed the MPU3213 Bahasa Kebangsaan A) shall be required to take a 3CH MPU U2 subject. Student who opt to take a foreign language course within the MPU U2 category must ensure that he/she does not have formal education in the chosen foreign language.*

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

Programme Offered at
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. We are creating a learned community that collects, preserves and disseminates knowledge in multimedia-related areas. 60% of our academic staff members are PhD holders. Our curriculum is consistently being improved after getting input from our industrial panel members. To-date we have close to 20 appointed industrial panel members from Huawei, ZTE, TMOne, Petronas, MIMOS, Motorola, EDOTCO, +Solar, INTOTEST, AFA Technologies, INCHZ IOT, Honda Assembly, Prosper Capital Holdings, Daikin, BODIBASIXS MFG and many more. Our external examiners from renowned universities local and abroad are also constantly giving us feedback on best practices. All our programmes are recognised by accrediting bodies such as the Malaysian Qualifications Agency (MQA), Engineering Accreditation Council (EAC) and Engineering Technology Accreditation Council (ETAC). FET houses the ZTE-MMU Training Centre for 5G research and application which is one of its kind in South East Asia. The 5G-supported ZTE-MMU Training Centre will pave the way for more next generation mobile communication teaching and research activities to be conducted as well as build the pathway for more use case applications for IoT as well as smart manufacturing.

Foundation in Engineering

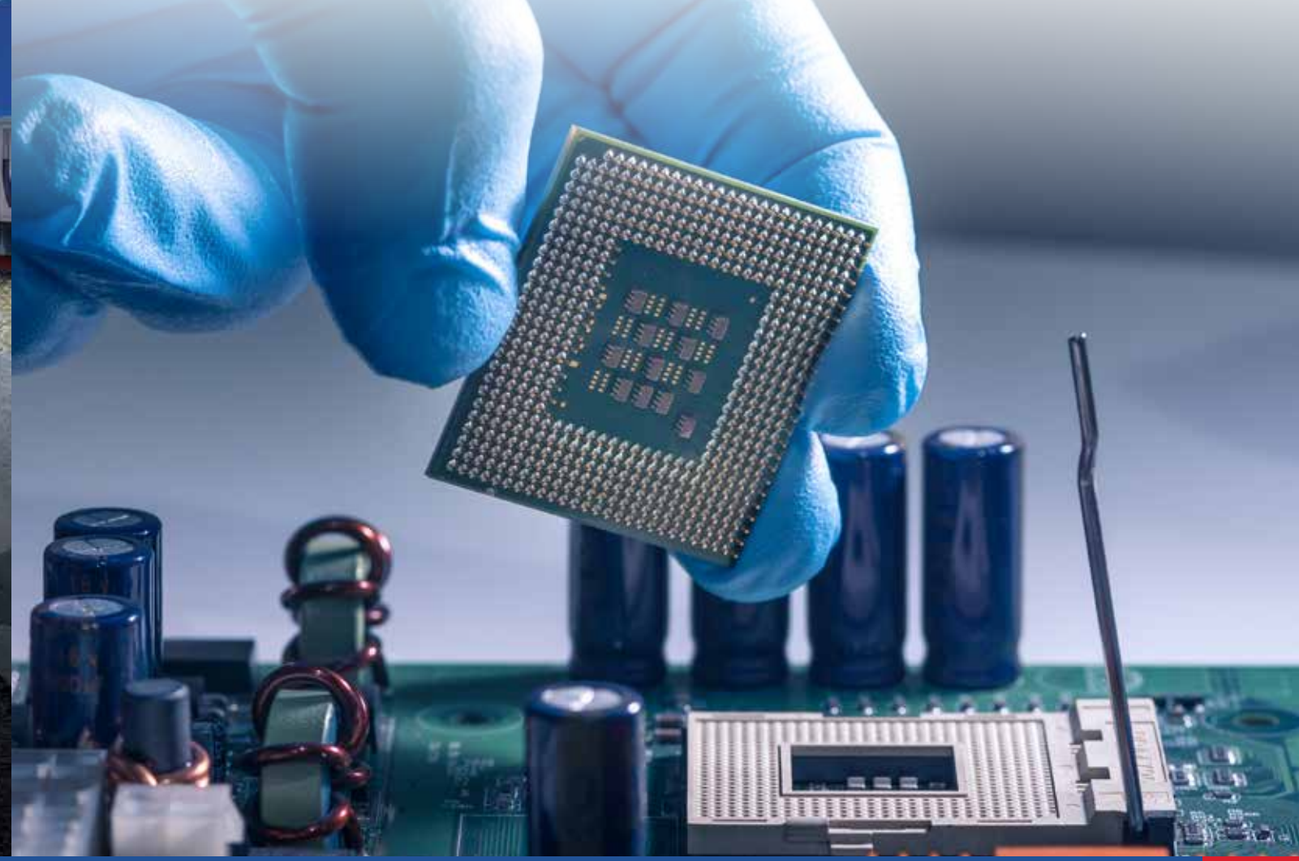
(R2/010/3/0450) 03/22 (A7857)

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, students can opt to pursue with bachelor's degree programme from Faculty of Engineering & Technology (FET) in Melaka campus or Faculty of Engineering (FOE) in Cyberjaya campus.

PROGRAMME STRUCTURE FOR FOUNDATION IN ENGINEERING | FET

Trimester 1	Trimester 2	Trimester 3
• Communicative English • Algebra • Mechanics • Mechanics Laboratory • Computer Applications and Programming • General Chemistry • Trigonometry and Geometry	• Essential English • Electricity and Magnetism • Electronics Laboratory • Fundamentals of Business Management • Critical Thinking • Calculus	• Academic English • Modern Physics and Thermodynamics • Introduction to Probability and Statistics

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



Diploma in Mechanical Engineering

(N/521/4/0184) 03/25 (MQA/PA13460)

This newly introduced programme is designed to meet the expectations and needs of the industry. One of the main reasons for this new course to be offered was the favourable market survey responses from industries on the employability of diploma graduates from the mechanical engineering field. Mechanical engineering is one of the top in-demand disciplines of engineering due to the graduates being versatile and knowledgeable in many different fields.

The diploma programme is designed to provide students not only with the necessary academic and technical understanding of the related mechanical engineering-related fields but also challenge the students to experience invaluable practical training in the industry. Students are given the opportunity to obtain valuable hands-on experience through lab experiments, group projects and in their final year projects.

Upon completion of this Diploma in Mechanical Engineering programme, students can opt to pursue further studies in the Mechanical Engineering degree programme offered by the Faculty of Engineering and Technology (FET) or to join the workforce in the industry as a qualified diploma graduate. The programme is also recognized by the Engineering Technology Accreditation Council (ETAC) under Board of Engineers Malaysia. Graduates of this programme will qualify to apply for Inspector of Works (IoW) from BEM.

Career Prospects: Mechanical Technician, Manufacturing/Process Engineering Assistant, Equipment Supervisor, Oil & Gas Supervisor, HVAC Supervisor, Energy Engineering Assistant, Automotive Technician, Machine Design Supervisor, Project Engineering Assistant, R&D Technician etc.

PROGRAMME STRUCTURE

Trimester 1	Trimester 2	Trimester 3	Trimester 4
CORE			
• Basic Electrical Technology • Computer Applications • Engineering Workshop Technology • Physics for Engineering	• Algebra & Trigonometry • Chemistry for Engineering • Engineering Drawing	• Calculus • Engineering Mechanics I: Statics	• Engineering Mathematics • Program Design • Materials Science • Computer-Aided Drafting • Strength of Materials

Trimester 5	Trimester 6	Trimester 7	Trimester 8
CORE			
• Fluid Mechanics • Engineering Mechanics II: Dynamics • Thermodynamics	• Final Year Project (Part 1) • Project Management	• Industrial Training	• Final Year Project (Part 2) • Measurement and Instrumentation • Introduction to Industrial Revolution 4.0 • Engineering in Society

ELECTIVE MODULES (Choose 1 Subject)

▪ **Introduction To CAD/CAM** ▪ **Introduction To Quality Management** ▪ **Introduction To Operations Management**

UNIVERSITY SUBJECTS AND MATA PELAJARAN UMUM (MPU)

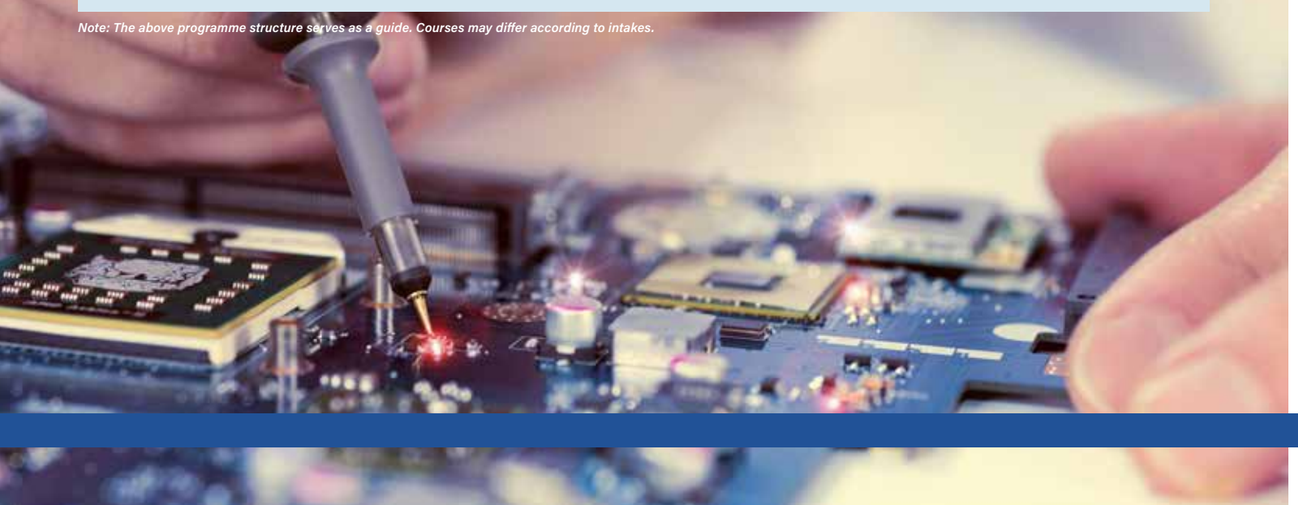
- Communication Skills: English and Business Communications in the Digital Age
- Character Building Program: Character Building courses
- Environmental Society

MPU courses:
U1 - Falsafah dan Isu Semasa / MPU2133 Bahasa Melayu Komunikasi 1

U2/U3 - Bahasa Kebangsaan A / Any other courses in the U2 or U3 category

U4 - Co-Curriculum

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



Diploma in Electronic Engineering

(R2/523/4/0263) 01/25 (A5832)

Diploma in Electronic Engineering programme suits those who are interested in mainstream electronic design and support. This program is designed to provide a balanced curriculum in terms of theoretical knowledge and hands-on practice in learning electronics-related courses. Towards the end of the programme, students are to undergo Industrial Training in gaining real life working experience, and expected to design their own prototype in solving real life problems through the Final Year Project.

Upon completion of this Diploma in Electronic Engineering programme, students can opt to pursue further studies in Bachelor's Degree programmes in Faculty of Engineering and Technology (FET) in Melaka campus or Faculty of Engineering (FOE) in Cyberjaya campus as well as to join the workforce in the industry as a qualified diploma graduate.

The programme is also recognized by the Engineering Technology Accreditation Council (ETAC) under Board of Engineers Malaysia. Graduates of this programme will qualify to apply for Inspector of Works (IoW) from BEM.

Career Prospects: Electronic Technician, Process Engineering Assistant, Equipment Supervisor, Energy Engineering Assistant, Laboratory Technician, Systems Design Supervisor, Project Engineering Assistant, R&D Technician etc.

PROGRAMME STRUCTURE

Trimester 1	Trimester 2	Trimester 3	Trimester 4
CORE			
• Engineering Workshop • Electronics 1 • Circuit Theory • Computer Applications	• Algebra & Trigonometry • Electronics 2 • Digital Fundamentals	• Calculus • Electronics 3	• Engineering Mathematics • Program Design • Power Electronics • Field Theory • Industrial Electronics

Trimester 5	Trimester 6	Trimester 7	Trimester 8
CORE			
• Analog & Digital Communication Systems • Network Analysis • Electrical Measurement & Instrumentation Techniques • Microcontroller Technology	• Final Year Project (Part 1) • Project Management • Engineering in Society	• Industrial Training	• Final Year Project (Part 2) • Introduction to Machines & Power Systems

ELECTIVE MODULES (Choose 1 Subject)

▪ **Control Systems** ▪ **Introduction to Python Programming**
▪ **Introduction to Hardware Description Language**

UNIVERSITY SUBJECTS AND MATA PELAJARAN UMUM (MPU)

- Communication Skills: English and Business Communications in the Digital Age
- Character Building Program: Character Building courses
- Environmental Society

MPU courses:
U1 - Falsafah dan Isu Semasa / MPU2133 Bahasa Melayu Komunikasi 1

U2/U3 - Bahasa Kebangsaan A / Any other courses in the U2 or U3 category

U4 - Co-Curriculum

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

Bachelor of Electronics Engineering (Robotics and Automation) with Honours

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

The Faculty of Engineering and Technology offers an undergraduate programme leading to the Bachelor of Electronics Engineering (Robotics and Automation) with Honours. 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, artificial intelligence, additive manufacturing, microprocessor system, automation, power technology and Internet of Things (IoT).

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 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 final year project geared towards making them industry ready in this era of Industry 4.0.

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

PROGRAMME STRUCTURE

Year 1	Year 2	Year 3	Year 4
CORE			
• Algorithm & Data Structure • Circuit Theory • Computer and Program Design • Digital Logic Design • Engineering Mathematics I • Engineering Mathematics II • Electronics I • Electronics II • Field Theory • Introduction to Machines & Power System	• Analog & Digital Communications • Circuits & Signals • Control Theory • Electromagnetic Theory • Electronics III • Engineering Mechanics • Engineering Mathematics III • Instrumentation & Measurement Techniques • Microcontroller & Microprocessor Systems • Power Technology	• Automation • Computer Organization & Architecture • Design Project • Digital Signal Processing • Machine Vision • Manufacturing & Operations Management • Project Management for Engineers • Robotics • Industrial Training	• Advanced Robotics • Project (Part 1) • Project (Part 2)

ELECTIVE MODULES (Choose 4 Subjects)

- Artificial Intelligence and Applications
- Communications Electronics
- Data Communications & Computer Networking
- Electromagnetic Interference
- Introduction to Computer Integrated Manufacturing
- Multimedia Technology & Application
- Semiconductor Packaging & Test
- Theory of Machines
- Additive Manufacturing
- Advanced Microprocessors
- Digital Control Systems
- Embedded System Design
- Java Technology
- Object Oriented Programming with C++
- Practical FPGA Design and Interfacing
- Quality Engineering
- IoT Design and Interfacing
- Theory of Inventive Problem Solving (TRIZ)

UNIVERSITY SUBJECTS AND MATA PELAJARAN UMUM (MPU)

Communication Skills/Law/Ethics:
- Engineer and Society
- Law for Engineers
- Fundamentals of Digital Competence for Programmers

MPU courses:
- U1 -Falsafah dan Isu Semasa
- U1- Penghayatan Etika dan Peradaban / Bahasa Melayu Komunikasi 2
- U2– Integrity and Leadership
- U2/U3- Bahasa Kebangsaan A / Any other courses in the U2 or U3 category
- U4 - Co-Curriculum

Character Building Program:
- Character Building courses

Environmental Society

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

Bachelor of Mechanical Engineering with Honours

(R3/521/6/0027)10/27 (MQA/FA8757)

"When the Mechanical rest, the World rust"

Mechanical engineering, one of the broadest and most versatile engineering disciplines, is the application of science and technology to create solutions to the real-world problems through the study of objects and systems using the principles of motion, force and energy. Mechanical engineers play the key role to solve today's problems and create tomorrow's solutions in various areas such as transportation, energy, semiconductor, agriculture, health care, climate change, and many more.

The four-year Bachelor of Mechanical Engineering with Honours programme equips the students with fundamental knowledge and hands-on skills and experience necessary to meet the competitive market demand. The curriculum focuses on the thorough grounding in engineering mathematics, applied mechanics, thermofluids science, materials science, machine design and mechanisms, and control engineering. Third and fourth year of the study cover capstone design project, industrial training and final year project, which train the students with the capabilities and skills in system design, practical problem solving, research and project management.

Specialised electives expose the students to the knowledge and experience on the current research and technology trends encompassing renewable energy, composite materials, numerical analysis, machine design and tribology, HVAC, ergonomics, quality and operations research, and IR 4.0-related courses such as additive manufacturing, robotics and automation, IoT design and interfacing, and artificial intelligence and applications. In addition to the technical subjects, professional development courses such as workplace communication, engineering ethics, law, project management and economics are also emphasised in the programme to develop and supply well-rounded mechanical engineers to the market.

Career Prospects: Mechanical Engineer, R&D Engineer, M&E Consulting Engineer, Automotive Engineer, HVAC Engineer, Oil & Gas Engineer, Energy Engineer, Machine Design Engineer, Manufacturing Engineer, Process Engineer, Equipment Engineer, Automation Engineer, Project Engineer, Engineering Academician, Researcher, etc.

PROGRAMME STRUCTURE

Year 1	Year 2	Year 3	Year 4
CORE			
• Engineering Graphics Communication • Workshop Technology • Engineering Mathematics I • Engineering Mathematics II • Applied Statics • Strength of Materials • Principles of Thermodynamics • Basic Electrical Technology • Computer and Program Design	• Materials Science • Applied Thermodynamics • Engineering Mathematics III • Fluid Mechanics • Machine Component Design I • Mechanics of Materials • Theory of Machines • Measurement and Instrumentation • Introduction to Electrical Power and Machines • Microprocessor Systems and Interfacing	• Machine Component Design II • Fluid Dynamics • Heat Transfer • Computational Methods for Mechanical Engineering • CAD/CAM • Capstone Design Project • Industrial Management • Industrial Training • Manufacturing and Operations Management	• Mechanical Vibrations • Control Engineering • Project (Part 1) • Project (Part 2)

ELECTIVE MODULES (Choose 3 Subjects)

- Finite Element Method
- Computational Fluid Dynamics
- Application of Composite Materials in Structures
- Heating, Ventilation and Air Conditioning Systems
- Internal Combustion Engine
- Tribology
- Ergonomics and Human Factors
- Quality Engineering
- Operations Research
- Semiconductor Packaging and Test
- Additive Manufacturing
- Robotics and Automation
- Artificial Intelligence and Applications
- IoT Design and Interfacing
- Energy Technologies
- Theory of Inventive Problem Solving (TRIZ)

UNIVERSITY SUBJECTS AND MATA PELAJARAN UMUM (MPU)

Communication Skills/Law/Ethics:
- Engineer and Society
- Law for Engineers
- Fundamentals of Digital Competence for Programmers

MPU courses:
- U1 -Falsafah dan Isu Semasa
- U1- Penghayatan Etika dan Peradaban / Bahasa Melayu Komunikasi 2
- U2– Integrity and Leadership
- U2/U3- Bahasa Kebangsaan A / Any other courses in the U2 or U3 category
- U4 - Co-Curriculum

Character Building Program:
- Character Building courses

Environmental Society

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

Campus	Programme	Minimum Entry Requirements
MELAKA	**Diploma** ▪ **Diploma in Electronic Engineering** ▪ **Diploma in Mechanical Engineering**	I. Pass SPM/O-Level or its equivalent with a minimum of Grade C in at least three (3) subjects inclusive of Mathematics and one Science/Technical/Vocational subject and a Pass in English; **OR** II. Pass UEC with a minimum of Grade B in at least three (3) subjects inclusive of Mathematics and one Science/Technical/Vocational subject and a Pass in English; **OR** III. Pass STPM or its equivalent AND a Pass in Mathematics, English and one relevant Science/ Technical/Vocational subject at the SPM Level or its equivalent; **OR** IV. Recognised Certificate in Engineering/Engineering Technology or its equivalent.* *Note:* **One (1) year of relevant experience or a minimum of one (1) trimester of bridging programme is required for recognised related Vocational and Technical/Skills Certificate or its equivalent.*
CYBERJAYA MELAKA	**Foundation** ▪ **Foundation in Engineering**	I. Pass SPM/O-Level or its equivalent with a minimum of Grade C in at least five (5) subjects inclusive of English, Mathematics and one Engineering-related subject; **OR** II. Pass UEC with a minimum of Grade B in at least four (4) subjects inclusive of Mathematics, English and one Engineering-related subject; **OR** III. Other equivalent qualifications recognised by Malaysian Government.
CYBERJAYA	**Bachelor** ▪ **Bachelor of Engineering (Hons) Electrical** ▪ **Bachelor of Engineering (Hons) Electronics** ▪ **Bachelor of Engineering (Hons) Electronics majoring in Computer** ▪ **Bachelor of Engineering (Hons) Electronics majoring in Telecommunications**	I. Pass Foundation/Matriculation studies in related field from a recognised institution; **OR** II. Pass STPM or its equivalent with a minimum of Grade C (GP 2.00) in Mathematics and Physics; **OR** III. Pass A-Level with a minimum of Grade D in Mathematics and Physics. **OR** IV. Pass UEC with a minimum of Grade B in at least five (5) subjects inclusive of Mathematics and Physics; **OR** V. Recognised Diploma in Engineering / Engineering Technology or its equivalent with minimum CGPA 2.00; **OR** VI. Pass DKM /DLKM/DVM with a minimum CGPA of 2.50. Candidates with CGPA below 2.50 MUST have at least two (2) years of work experience in the related field.* *Note:* **DKM /DLKM/DVM candidates may be required to undergo Bridging Programme as an additional requirement.*
MELAKA	▪ **Bachelor of Mechanical Engineering with Honours** ▪ **Bachelor of Electronics Engineering (Robotics and Automation) with Honours**	
CYBERJAYA	▪ **Bachelor of Science (Hons) Intelligent Robotics**	I. Pass Foundation / Matriculation studies in related field from a recognised institution with a minimum CGPA of 2.50; **OR** II. Pass STPM or its equivalent with a minimum Grade C (GP 2.00) in any 3 subjects inclusive of Mathematics and Physics; **OR** III. Pass A-Level with a minimum of Grade D in any three (3) subjects inclusive of Mathematics and Physics; **OR** IV. Pass UEC with a minimum of Grade B in at least five (5) subjects inclusive of Mathematics and Physics; **OR** V. Recognised Diploma in the related field with a minimum CGPA of 2.50 or its equivalent;* **OR** VI. Pass DKM /DLKM/DVM with a minimum CGPA of 2.50. Candidates with CGPA below 2.50 MUST have at least two (2) years of work experience in the related field.** *Note:* **Candidates with CGPA below 2.50 but above 2.0 may be admitted subject to a rigorous internal assessment process.* ***DKM /DLKM/DVM candidates may be required to undergo Bridging Programme as an additional requirement.*

Faculty of **ENGINEERING**

Cyberjaya campus

Faculty of **ENGINEERING AND TECHNOLOGY**

Melaka campus

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