



A WHOLE NEW WORLD

Multimedia University is an institution that leads future digital leaders and you are welcome to be part of a dynamic and vibrant community. Get ready to embark into the intellectual adventure with us and we are providing an array of opportunities for you to learn, to grow, to discover who you are, and how you can make a difference in the world.

It is undeniable that education is a great tool to transform lives, where we can achieve our biggest dreams and empower us to become better person. At MMU, the 'YOU' element is vital where you will embrace the spirit of discovery and explore all the things that we have to offer. It is YOU who made us what we are and we are looking forward to the positive energy that YOU bring to our campus.

MMU is You! Join us to become future digital leaders and your success begins here! "

**Prof. Dato' Dr. Mazliham Mohd Su'ud**CEO/ President

## 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.

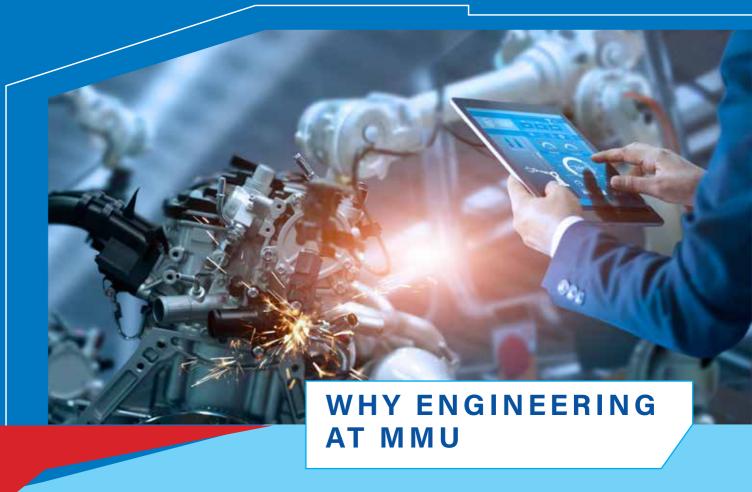
Throughout your journey with us, you will be empowered with knowledge and skills to become competent engineers with numerical and problem-solving skills. Our engineering programmes enhance your employability and prepare you for the world of cutting edge engineering and its applications.

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!





- 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 everevolving tech landscape.
- Our program is accredited by prestigious bodies including MQA, EAC, ETAC, and BEM, ensuring quality education and industry relevance.

- 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.
- 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.

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AWARD-WINNING UNIVERSITY WITH A GLOBAL **OUTLOOK** 

#### **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 2023 and Times Higher Education (THE) World University Rankings 2023. At MMU, our diversity is what makes us unique where you will study alongside with approximately 1,200 international students from 65 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.

**Top 20** among Malaysian universities in QS Asia **University Rankings 2023** 

Awarded Self-Accreditation Status, 2017 by Malaysian Qualification Agency

**TOP 10** among Malaysian Private Universities in Times Higher Education (THE) Asia University Rankings 2023. Top 400 in QS World Ranking by Subject (electrical and electronic) since 2015

Awarded the 5-Star Rating in the SETARA by Ministry of Higher Education (MOHE)

**Awarded CXP Best Customer Experience Awards 2021 & 2022** 

Awarded Gold Medal under the Education and Learning at Putra Brand Awards 2022

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)** 

**Employers' Preferred University by** Talent Bank 2022

**Ground-breaking** developments 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.



AN ENTREPRENEURIAL UNIVERSITY WITH INDUSTRY-READY PROGRAMMES

#### **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 stateof 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.

# A UNIVERSITY THAT IS AN INDUSTRY TRENDSETTER

- 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 (Dirwector of Agmo Studio, a multiaward 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.



## RESEARCH-LED AND 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.

# 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 as soon as possible, 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 would 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, on top of 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 within 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.

# 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

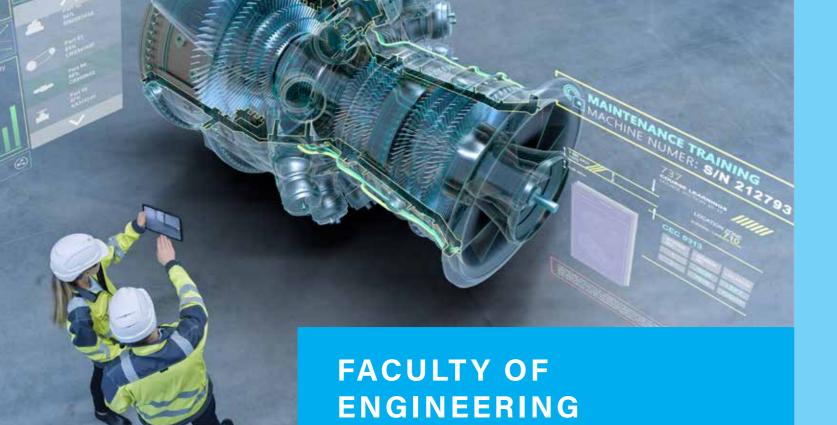
MMU for me was not just about the technical courses and training I received in engineering; more than that, it was the experiences, friendships and characterbuilding that have shaped me into who I am as a human being.

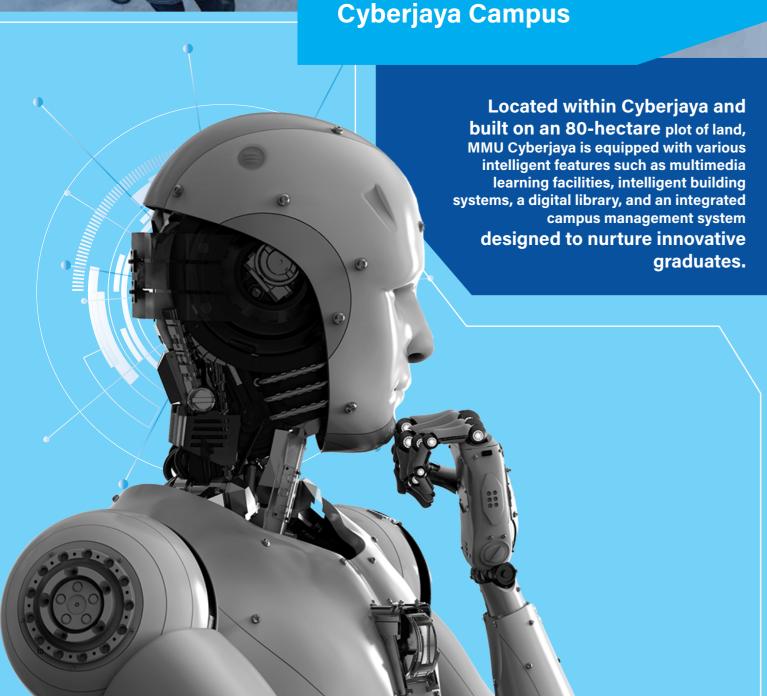
#### Dr. Koay Jun Yi

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)







#### **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**

- Algebra and TrigonometryMechanics

- Physical Computing

#### **Trimester 2**

- Calculus and Linear Algebra
- Essential English

#### **Trimester 3**

- Academic EnglishModern Physics and ThermodynamicsIntroduction 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 (loT), 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	
	ELEC	TIVES		
			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.

**Articulation Pathway:** THE UNIVERSITY OF QUEENSLAND

### **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

#### Year 1 Year 2 Year 3 Year 4 CORE Engineering Mathematics I • Engineering Mathematics III Analog and Digital Communications · Circuits and Signals Digital Integrated Circuits Circuit Theory • Electromagnetic Theory Power Electronics Processing and Fabrication Field Theory Computer & Program Design Engineering Mathematics II Technology Integrated VLSI Systems Microcontroller and Microprocessor Advanced Microprocessors Data Communications and Systems - Physical Electronics Computer Networking Microelectronics Circuit Analysis Industrial Training Introduction to Machines and and Design Power Systems - Instrumentation & Measurement Electromagnetic Interference Computer Organization and Algorithms and Data Structures Industrial Mathematics Digital Logic Design Control Theory Electronics III **ELECTIVES Embedded Technology** IC Design Multimedia Technology Nanotechnology **Data Engineering** VLSI System Design and Embedded IoT Systems and Software Engineering Diagnostic Technology · Introductory Data Science Modelling Technique Object Oriented Programming Application N/MFMS Introductory Data Visualization · Analog Integrated Circuits Al System & Application with C++ Semiconductor Devices Al System & Application Advanced Object-oriented Semiconductor Devices Object Oriented Programming Design with Java Operating System Cybersecurity · Multimedia Technology and Applications Digital Signal Processing Introductory Mobile Programming 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: MPU courses: **English and Business** U1 - Falsafah dan Isu Semasa / U2/U3 - Bahasa Kebangsaan A / Any U4 - Co-Curriculum Communications in the Digital Age MPU2133 Bahasa Melayu other courses in the U2 or U3 Komunikasi 1 category • Character Building Program: Character Building and Character Development

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

Year 1	Year 2	Year 3	Year 4
		CORE	
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	Engineering Mathematics III     Microcontroller and Microprocesso Systems     Circuits & Signals     Electromagnetic Theory     Fundamental of Wireless Communications     Computer Organization & Architecture     Information Theory and Error Coding     Antenna & Propagation     Industrial Mathematics     Data Communications & Networking	Digital Communications     Communications Networks     Digital Signal Processing     Embedded IoT Systems and Application     Capstone Project     Industrial Training	Project Analog Communications Advanced Networking Techniques Control Theory Optoelectronics & Optical Communications
## Cybersecurity   Recommunications   RF Circuit Design   Circuit Design			
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	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.

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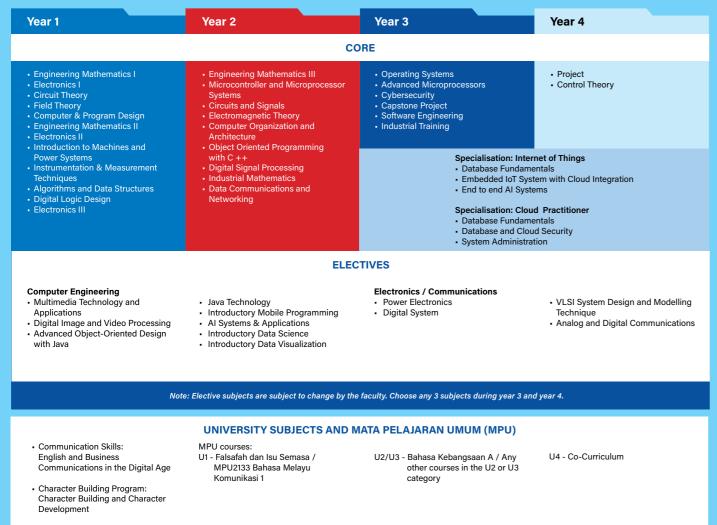
#### **Bachelor of Engineering (Hons.) (Electronics majoring in Computer)** (R2/523/6/0166) 06/26 (MQA/FA4866)

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



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

PROGRAMME STRUCTURE				
Year 1	Year 2		Year 3	
	C	ORE		
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	Linear systems & signa Electromagnetics with a Electrical machines and Robotics - Machine des Introduction to artificial Actuators and sensors Electronics instrumenta Robotics - Modelling ar Feedback control Advanced programming Internship	applications I power systems sign and mechanisms intelligence tion nd control	Mobile robots and drones     Machine learning concepts and technologies     Project I     Project II     Machine vision & image processing	
	ELEC	CTIVES		
Elective 1 Elective 2 Elective 3 Elective 4 Elective5	Hardware Track  • IOT systems & applicati • Electronic prototyping a  • Making embedded syst • Industrial automation ar  • Signal and power integri	and PCB layout ems nd digital control	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: U1 - Falsafah dan Isu Semasa / MPU2133 Bahasa Melayu Komunikasi 1	U2/U3 - Bahasa Kebangsa other courses in t category		

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 quide. Courses may differ according to intakes.

## 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 loT 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**

- Communicative English
- Machania
- Mechanics
- Mechanics Laboratory
- Computer Applications
- General Chemistr
- Trigonometry and Geometry

## Trimester 2

- Electricity and Mag
- Floatronics Loboratory
- Fundamentals of Pusiness Managemen
- Critical Thinking
- Calculus

#### **Trimester 3**

- Academic English
- Modern Physics and Thermodynamics
  Introduction to Probability and Statistics
- ness Management

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

#### 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 Design     Engineering Mechanics II: Dynamics     Thermodynamics	Final Year Project (Part 1)     Project Management	• Industrial Training	Final Year Project (Part 2)     Engineering in Society     Measurement and Instrumentation     Introduction to Industrial Revolution 4.0	
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 quide. 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	
	FLECTIVE MODIL	II FS (Choose 1 Subject)		
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 Engineering (Honours) Electronics majoring in Telecommunications**

(R2/523/6/0100) 12/22 (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 Internet-based 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, Internet of Things (IoT), 4G and 5G technologies.

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
	co	DRE	
Algorithm & Data Structure     Circuit Theory     Computer and Program Design     Digital Logic Design     Engineering Mathematics I     Electronics I     Electronics II     Field Theory     Introduction to Machines & Power System	Circuits & Signals Computer Organization & Architecture Data Communications & Computer Electromagnetic Theory Electronics III Engineer & Society Engineering Mathematics III Fundamentals of Communications Information Theory & Error Control Coding Instrumentation & Measurement Techniques Microcontroller & Microprocessor Systems	Antenna & Propagation     Communications Electronics     Control Theory     Design Project     Digital Signal Processing     Electromagnetic Interference     Multimedia & Communications     Networks     Mobile & Satellite Communications     Industrial Training     Project Management for Engineers	Optoelectronics and Optical Communications Project (Part 1) Project (Part 2)

#### **ELECTIVE MODULES (Choose 1 Subject)**

- Advanced Microprocessors Digital Wireless Communications
- Embedded System Design
- Java Technology
- Knowledge-based Systems
- Practical FPGA Design & Interfacing Object Oriented Programming with

- Radar System Design & Analysis

MPU courses:

Komunikasi 2

- Random Processes & Queueing Theory
- Semiconductor Packaging & Test Telemedicine Technology
  - - Imaging Radar System

    - Parallel Processing & Programming

- · IoT Design and Interfacing Data & Multimedia Networking
  - Artificial Intelligence and Applications Theory of Inventive Problem Solving

• Radio Network Planning towards 5G

#### **UNIVERSITY SUBJECTS AND MATA PELAJARAN UMUM (MPU)**

#### Communication Skills/Law/Ethics: • Engineer and Society

- Fundamentals of Digital Competence for Programmers
- **Character Building Program:**

**Environmental Society** 

· Character Building courses

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

(TRIZ)

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

## **Bachelor of Engineering (Honours) Electronics majoring in Robotics and 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 (Honours) Electronics 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, 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     Electronics I     Electronics II     Field Theory     Introduction to Machines & Power System      Analog & Digital Communication     Circuits & Signals     Control Theory     Electronagnetic Theory     Electronics III     Engineering Mechanics     Engineering Mechanics     Engineering Mathematics III     Instrumentation & Measurement Techniques     Microcontroller & Microprocessor Systems     Power Technology	Computer Organization & Architecture Design Project Digital Signal Processing Machine Vision Manufacturing & Operations Management Project Management for Engineers	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
- Quality EngineeringIoT Design and Interfacing

  - Theory of Inventive Problem Solving (TRIZ)

• Object Oriented Programming with C++

Practical FPGA Design and Interfacing

#### **UNIVERSITY SUBJECTS AND MATA PELAJARAN UMUM (MPU)**

#### Communication Skills/Law/Ethics: Engineer and Society

- Law for Engineers
- Fundamentals of Digital Competence
- Character Building Program: Character Building courses
- **Environmental Society**

- MPU courses: III -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
- U4 Co-Curriculum

Note: The above programme structure serves as a quide, Courses may differ according to intakes



### **Bachelor of Engineering (Honours) Mechanical**

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

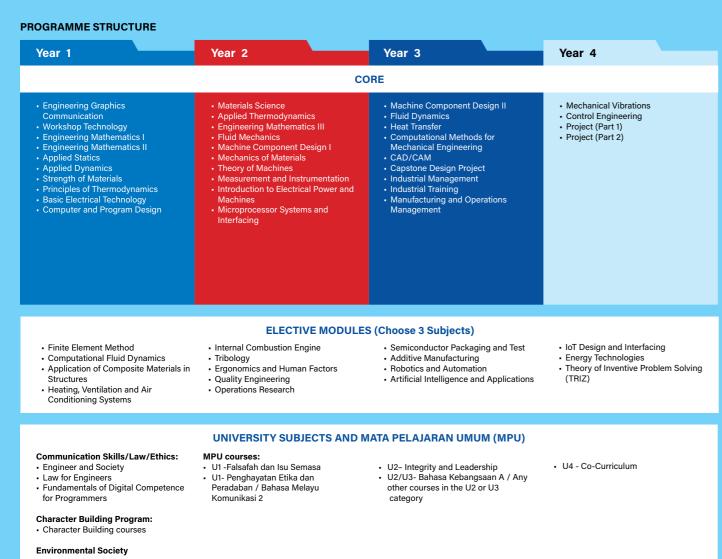
"When the Mechanical rest, the World rust"

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 B.Eng (Hons.) Mechanical 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.



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

University	Programme	Minimum Entry Requirements
Melaka	Diploma  Diploma in Electronic Engineering  Diploma in Mechanical Engineering	<ol> <li>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</li> <li>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</li> <li>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</li> <li>Recognised Certificate in Engineering/Engineering Technology or its equivalent.*</li> </ol> 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 two (2) science subjects;  OR  ii. Pass UEC with a minimum of Grade B in Mathematics, English and two (2) science subjects.
CYBERJAYA MELAKA	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  Bachelor of Engineering (Hons) Mechanical Bachelor of Engineering (Hons) Electronics majoring in Telecommunications Bachelor of Engineering (Hons) Electronics majoring in Robotics and Automation	<ol> <li>Pass Foundation/Matriculation studies in related field from a recognised institution; OR</li> <li>Pass STPM or its equivalent with a minimum of Grade C (GP 2.00) in Mathematics and Physics; OR</li> <li>Pass A-Level with a minimum of Grade D in Mathematics and Physics. OR</li> <li>Pass UEC with a minimum of Grade B in at least five (5) subjects inclusive of Mathematics and Physics; OR</li> <li>Recognised Diploma in Engineering / Engineering Technology or its equivalent with minimum CGPA 2.00; OR</li> <li>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.*</li> </ol>
CYBERJAYA	• Bachelor of Science (Hons) Intelligent Robotics	<ol> <li>Pass Foundation / Matriculation studies in related field from a recognised institution with a minimum CGPA of 2.50; OR</li> <li>Pass STPM or its equivalent with a minimum Grade C (GP 2.00) in any 3 subjects inclusive of Mathematics and Physics; OR</li> <li>Pass A-Level with a minimum of Grade D in any three (3) subjects inclusive of Mathematics and Physics; OR</li> <li>Pass UEC with a minimum of Grade B in at least five (5) subjects inclusive of Mathematics and Physics; OR</li> <li>Recognised Diploma in the related field with a minimum CGPA of 2.50 or its equivalent;* OR</li> <li>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.**</li> </ol> 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.

# TOGETHER, WE LEAD THE DIGITAL FUTURE



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