A · P · U
ASIA PACIFIC UNIVERSITY
OF TECHNOLOGY & INNOVATION

ENGINEERING

i want

to create the next big idea
@ APU

ENGINEERING

INNOVATIVE
THINKING
CAN CHANGE
YOUR WORLD

INSPIRING YOU
TOWARDS INNOVATION
& AMBITIONS

IT STARTS NOW..... IT STARTS HERE

ENGINEERING PROGRAMMES

DEGREE PROGRAMMES

- B. Eng (Hons) in Electrical and Electronic Engineering
- B. Eng (Hons) in Mechatronic Engineering
- B. Eng (Hons) in Telecommunication Engineering
- B. Eng (Hons) in Petroleum Engineering

APU among the Highest Rated Universities in Malaysia

Being rated at TIER 5 (EXCELLENT) under the SETARA 2011 Ratings by the Ministry of Higher Education (MOHE) and Malaysian Qualifications Agency (MQA), and has maintained this Excellent rating in the latest SETARA 2013 Ratings announced on 17th November 2014.

: Why Us

Asia Pacific University of Technology & Innovation (APU) is amongst Malaysia's Premier Private Universities, and is where a unique fusion of technology, innovation and creativity works effectively towards preparing professional graduates for significant roles in business and society globally. APU has earned an enviable reputation as an award-winning University through its achievements in winning a host of prestigious awards at national and international levels.

6 STAR RATING
OUTSTANDING
MyQuest 2014/15

APIIT amongst the Highest Rated Colleges

TIER 5
EXCELLENT RATING

APU amongst the Highest Rated Universities

NURTURING PROFESSIONALS FOR GLOBAL CAREERS

We nurture our students as professionals to ensure that we prepare you for the global challenges ahead. Your success is our best testimony; **over 95% of our graduates are employed by graduation**.

Established in 1993 / Part of APIIT Education Group

Purpose-built APIIT campus in Technology Park Malaysia

DEGREE PROGRAMMES ACCREDITED BOARD OF ENGINEERS MALAYSIA

ENGINEER YOUR SUCCESS!

APU Engineering Degrees Accredited Internationally by the Washington Accord and Professionally by the Board of Engineers Malaysia (BEM).

OUTSTANDING SUPPORT

Regardless of the programme you choose, you will be supported by highly qualified and enthusiastic professionals. Many enjoy an international reputation for their research and actively engage with leading names in the industry.

RATED NO. 1

IN ASIA AND MALAYSIA FOR **MULTICULTURAL LEARNING EXPERIENCE***

With more than 11,000 students from over 110 countries, we ensure that you will gain memorable experiences alongside the diversified and colourful cultural environment.

Superb employability track record

WORK-READY, WORLD-READY

Study with us and we'll equip you to become a world-ready professional, with the knowledge, attributes, skills and expertise that employers look for.

* Student Barometer Wave 2015, 'Studying with people from other cultures'

- A STYLISH BLEND OF FUNCTIONALITY & ACCESSIBILITY
- A UNIQUE FUSION OF TECHNOLOGY, INNOVATION AND CREATIVITY
- CUTTING-EDGE TECHNOLOGIES
- A WIDE VARIETY OF SPACES TO LEARN, ENGAGE & TRANSFORM

APU'S CAMPUS OF THE FUTURE

An ultra-modern campus built today for the needs of tomorrow

Asia Pacific University of Technology & Innovation (APU). This new Ultra-Modern University Campus in Technology Park Malaysia (TPM) is designed to be the state-of-the-art teaching, learning and research facility providing a conducive environment for students and staff. TPM is the ideal location for this new and contemporary campus due to its strong positioning as Malaysia's primary hub for leading-edge and high-tech developments in a wide variety of areas. It is also located in one of the most rapidly developing areas in Kuala Lumpur, and is well served and accessible through major highways, LRT and other forms of public transportation.

APU's new campus is setting a new benchmark for design excellence among Malaysian Universities, combining an eco-friendly campus with a dynamic blend of technology and innovation to enable professional learning. It is a magnificent teaching & learning space for our Students & Staff designed by our award-winning architects & consultants.

(All illustrations are artist impressions)

Rated No:1 in Asia and Malaysia for multicultural learning experience*

MALAYSIA'S AWARD WINNING UNIVERSITY

Engineering Degrees Accredited under **WASHINGTON ACCORD** (accepted Worldwide)

95%+ Employed by Graduation

11,000 STUDENTS on campus from 110 COUNTRIES

MORE THAN **30,000** GRADUATES & ALUMNI

* Student Barometer Wave 2015, 'Studying with people from other cultures'

- **B. Eng (Hons) in Electrical & Electronic Engineering**
- **B. Eng (Hons) in Telecommunication Engineering**
- **B. Eng (Hons) in Mechatronic Engineering**
- **B. Eng (Hons) in Petroleum Engineering***

WORLDWIDE RECOGNITION UNDER THE WASHINGTON ACCORD

The School of Engineering at APU is one of our fastest growing schools and is gaining popularity among school leavers. This is because all the four engineering programmes offered by the School are current in terms of technology and are market driven, and thus have great employment opportunities.

The vision of the School is to be a leading provider of Engineering and Technology based education with innovative approaches to enhancing lifelong career opportunities. This is emphasised by our mission to provide engineering education based on a theoretical, experimental, and ethical foundation and enhanced by opportunities for participation in research, internships and interdisciplinary study.

For all degrees within the School, APU links with industry helps provide internship training placements for students. Internships are compulsory for all students as per the requirement of the Board of Engineers Malaysia.

** Programme is provisionally accredited by Malaysian Qualifications Agency (MQA).*

INTERNATIONAL RECOGNITION

Engineering Degrees Accredited under the Washington Accord

APU Engineering Degrees are fully accredited by the Board of Engineers Malaysia (BEM) which is a signatory to the Washington Accord.

This accreditation ensures that APU Engineering Graduates will have the following benefits in countries who are signatories of the Washington Accord:

- Opportunities to register as a Graduate Engineer with Board of Engineers Malaysia (BEM) or the relevant professional bodies in other countries who are signatories under the Washington Accord.
- Pathways to becoming a Professional or Chartered Engineer.
- Assurance that graduates are considered as having met international academic standards for engineering practice.

APU Engineering Degrees are Accredited Professionally by the Board of Engineers Malaysia (BEM) and are therefore recognised internationally under the Washington Accord. Recognition under the Washington Accord allows for APU engineering programmes to be recognised by countries such as Australia, Canada, Taiwan, Hong Kong, Ireland, Japan, South Korea, Malaysia, New Zealand, Singapore, South Africa, Turkey, Russia, the United Kingdom and the United States who are all signatories of the accord.

This allows APU graduates to be recognised in these countries for career opportunities towards achieving Professional/ Chartered Engineer status or for further education progression. Furthermore, many countries which are not yet signatories to the Washington Accord also use this as a benchmark in recognising Engineering Degrees.

- B. Eng (Hons) in Electrical & Electronic Engineering
- B. Eng (Hons) in Telecommunication Engineering
- B. Eng (Hons) in Mechatronic Engineering
- B. Eng (Hons) in Petroleum Engineering*

With this achievement, recognition under the Washington Accord enables APU Engineering graduates to work in any country in the world who are also a signatory to the Accord, without the need to re-qualify. The recognition is of utmost importance to the engineering education in Malaysia as graduates from accredited engineering degree programmes from Washington Accord signatory countries are considered as meeting the academic standard for practices in engineering at the international level.

Please refer to http://www.bem.org.my/v3/listofaccreditedprogrammes.html

The above benefits are applicable in the following countries, which are signatory to the Washington Accord:

"Signatories have full rights of participation in the Accord; qualifications accredited or recognised by other signatories are recognised by each signatory as being substantially equivalent to accredited or recognised qualifications within its own jurisdiction"

http://www.ieagreements.org/Washington-Accord/signatories.cfm

- Australia - Represented by Engineers Australia (1989)
- Canada - Represented by Engineers Canada (1989)
- China - Represented by China Association for Science and Technology (2016)
- Chinese Taipei - Represented by Institute of Engineering Education Taiwan (2007)
- Hong Kong China - Represented by The Hong Kong Institution of Engineers (1995)
- India - Represented by National Board of Accreditation (2014)

  (Applies only to programmes accredited by NBA offered by education providers accepted by NBA institutions.)
- Ireland - Represented by Engineers Ireland (1989)
- Japan - Represented by Japan Accreditation Board for Engineering Education (2005)
- Korea - Represented by Accreditation Board for Engineering Education of Korea (2007)
- Malaysia - Represented by Board of Engineers Malaysia (2009)
- New Zealand - Represented by Institution of Professional Engineers NZ (1989)
- Russia - Represented by Association for Engineering Education of Russia (2012)
- Singapore - Represented by Institution of Engineers Singapore (2006)
- South Africa - Represented by Engineering Council of South Africa (1999)
- Sri Lanka - Represented by Institution of Engineers Sri Lanka (2014)
- Turkey - Represented by MUDEK (2011)
- United Kingdom - Represented by Engineering Council UK (1989)
- United States - Represented by Accreditation Board for Engineering and Technology (1989)

"Organisations holding provisional status have been identified as having qualification accreditation or recognition procedures that are potentially suitable for the purposes of the Accord; those organisations are further developing those procedures with the goal of achieving signatory status in due course; qualifications accredited or recognised by organisations holding provisional status are not recognised by the signatories"

http://www.ieagreements.org/Washington-Accord/signatories.cfm

- Bangladesh - Represented by Board of Accreditation for Engineering and Technical Education
- Costa Rica - Represented by Colegio Federado de Ingenieros y de Arquitectos de Costa Rica
- Mexico - Represented by Consejo de Acreditacion de la Ensenanza de la Ingenieria
- Mexico - Represented by Consejo de Acreditación de la Enseñanza de la Ingeniería (CACEI)
- Pakistan - Represented by Pakistan Engineering Council
- Peru - Represented by ICACIT
- Philippines - Represented by Philippine Technological Council

** Programme is provisionally accredited by Malaysian Qualifications Agency (MQA).*

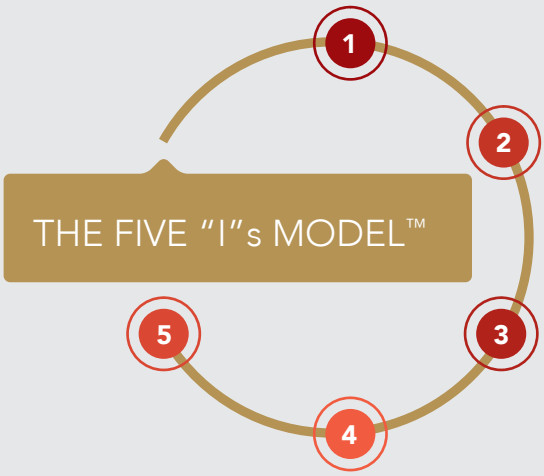
ENGINEERING @ APU

- RESEARCH OPPORTUNITIES FOR STUDENTS
- INDUSTRY-READY GLOBAL GRADUATES
- FREQUENT INDUSTRIAL VISITS & INDUSTRIAL SEMINARS
- HIGHLY-QUALIFIED MEMBERS OF THE FACULTY
- STRONG RELATIONSHIP WITH INDUSTRY PARTNERS

THE AIMS OF THE APU ENGINEERING PROGRAMMES ARE TO:

- A broad education in the fundamentals of engineering principles and professional practices that form a strong flexible base which enables graduates to fill a variety of responsible engineering positions
- Specialised development in one area of concentration that will enable graduates to successfully perform at entry-level engineering positions. Some graduates will prefer and be capable of continuing their education in a graduate school
- A stimulating and accessible course of study necessary to understand the impact of engineering solutions in a global and social context, analysis and contemporary engineering issues which the students can develop and apply in their near future
- An opportunity for students with different abilities and different educational experiences to benefit intellectually and vocationally from their education in engineering courses
- Graduates who are able to demonstrate intelligence, ingenuity, inventiveness and independence in all areas of endeavour
- An intellectually demanding and stimulating programme of study and develop a life-long commitment to learning that develops graduates who are imaginative and innovative and who show initiative and creativity in their work

APU Engineering Degrees are accredited by the **Board of Engineers Malaysia (BEM)**.



1- INNOVATION

through the design of curriculum, the module content and the learning approaches

2: INTEGRATION

through developing your capabilities to interrelate knowledge and to work in multidisciplinary teams

3: INFORMATION

through developing your knowledge and also your abilities to communicate effectively and persuasively

4: INTERACTIVITY

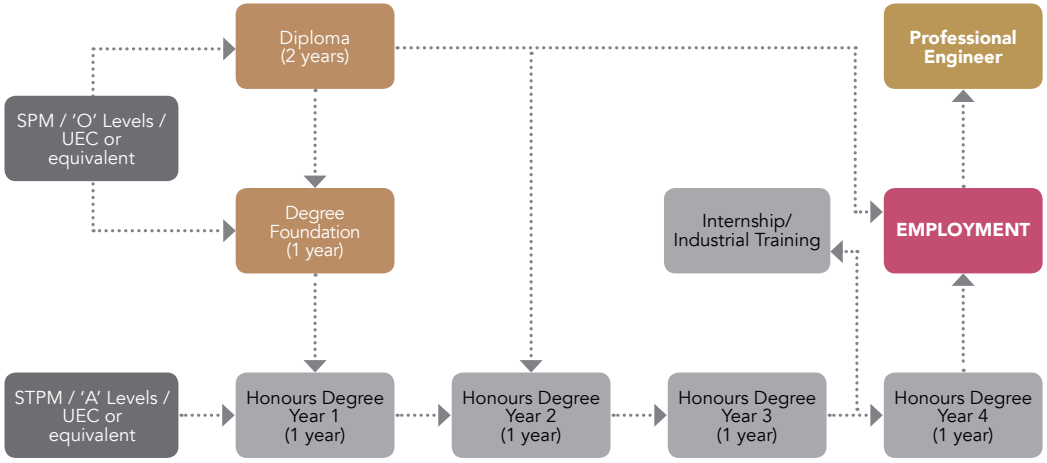
through the use of group work to develop your teamwork skills and through the use of technology to achieve interactivity of devices and people

5: IMAGINATION

in relation to new products, ideas, applications and solutions

PATHWAYS & ADMISSION REQUIREMENTS

Your Study Progression



Admission Requirements

BACHELOR (HONS) DEGREE PROGRAMMES

Programmes	General Requirements
DIRECT ENTRY TO LEVEL 1 OF THE DEGREE:	
STPM	- Pass STPM with at least principal / full pass with Grade C (CGPA 2.0) in Mathematics and Physics or Chemistry and pass SPM with credit in Mathematics and Physics or Chemistry
A-LEVEL	- Pass 'A' Levels with at least a pass in Mathematics and Physics or Chemistry and pass 'O' Levels / GCSE or equivalent with Grade C in Mathematics and one of the science subjects - Physics or Chemistry
UEC	- Pass UEC or Senior Middle Three (SM3) with Grade B in five (5) subjects including Mathematics and one of the relevant science subjects - Physics or Chemistry and a pass in Bahasa Malaysia
MATRICULATION/ FOUNDATION	- Pass The APU Foundation or equivalent - Successful Completion of APU Foundation / Matriculation with a minimum CGPA of 2.0 and completion of SPM/O-Level or equivalent with credit in Mathematics and Physics or Chemistry
DIRECT ENTRY TO LEVEL 2 OF THE DEGREE:	
DIPLOMA	- Successful completion of the APU/APIIT Diploma or - Successful completion of Studies in another recognised institute with academic credits equivalent to Level 1 of an Honours Degree (Subject to the approval of the APU/APIIT Academic Board)

Any qualification that APU accepts as equivalent to the above.

ENGLISH REQUIREMENTS (only applicable to International Students)

Programmes	Requirements
Foundation and Diploma Programmes	• IELTS – 5.5 • TOEFL – 65 (Internet Based Test) I 513 (Paper-Based Test) I 183 (Computer-Based Test) • Any qualification that APU accepts as equivalent to the above.
Bachelor (Hons) Degree Programmes	• IELTS – 6.0 • TOEFL – 79-80 (Internet Based Test) I 550 (Paper-Based Test) I 213 (Computer-Based Test) • Any qualification that APU accepts as equivalent to the above.

Applicants who do not possess the above will be required to sit for the APU English Placement Test, and based on the outcome of the test may be required to attend the APU Intensive English Programme (IEP) prior to commencement of the Degree programme.

** Candidates not having achieved for the required IELTS/TOEFL/MUET competency may still be accepted into the programme with the condition that the candidates MUST appear for the relevant examination prior to the completion of their studies/graduation.*

Note: The above entry requirements may differ for specific programmes based on the latest programme standards published by Malaysian Qualifications Agency (MQA).

APU FOUNDATION PROGRAMME

FLEXIBILITY OF CHOICE

MODULES YOU STUDY

The modules studied help to develop your study skills, introduce you to what you can expect on your degree and also allow you to discover what you can study depending on whether you choose a degree in Accounting, Banking, Finance & Quantitative Studies, Business & Management, Computing & Technology, Engineering, Industrial Design & Brand Management, Animation & Visual Effects, Creative Media Technology and International Studies. The modules are:

SEMESTER 1	**COMMON SEMESTER 1** • English for Academic Purpose • Communication Skills	
ROUTES ▶	**BUSINESS & FINANCE**	**COMPUTING & TECHNOLOGY**
SEMESTER 2	• Introduction to Business • Individual, State & Society • Global Business Trends • Public Speaking in English	• Introduction to Business • Individual, State & Society • Introduction to Visual & Interactive Programming • Public Speaking in English
SEMESTER 3	• Academic Research Skills • Principles of Accounts • Economics for Business • Perspectives in Technology / Further Mathematics**** • Co-Curricular	• Academic Research Skills • Further Mathematics • Introduction to Multimedia Applications • Perspectives in Technology • Co-Curricular
You may then proceed to Level 1 of a Degree of your choice in the following pathways		
PRIMARY PATHWAYS ▶	**- Business & Management** **- Accounting, Finance, Banking & Quantitative Studies** **- Media & Mass Communications**	**- Computing & Technology**
SECONDARY PATHWAYS ▶ Students may also choose the following:	- Computing & Technology - Industrial Design & Brand Management - Animation & Visual Effects - Creative Media Technology - International Studies	- Business & Management - Accounting, Finance, Banking & Quantitative Studies - Media & Mass Communications - Industrial Design & Brand Management - Animation & Visual Effects - Creative Media Technology - International Studies

PATHWAYS TO STAFFORDSHIRE UNIVERSITY (UK) BACHELOR DEGREES

APU Foundation Students will also have the opportunity to pursue Bachelor Degrees at Staffordshire University in the areas of Computing & Technology, Engineering, Design, Animation & VFX, Brand Management, Creative Media, Mass Communication, Accounting, Banking, Finance & Quantitative Studies, Business & Management and International Relations. This is providing, applicants meet the stated admission criteria and English Language Requirements, as determined by Staffordshire University, UK.

YOUR FOUNDATION PATHWAY TO A DEGREE OF YOUR CHOICE

(Please refer to individual course brochure for details and admission requirements.)

CREDIT / GRADE C in SPM / O-Level is required in:

Mathematics

Leading from APU Foundation to your Choice of Degree Studies; please note that a Credit Pass in Mathematics at SPM / O-Level is required for the following programmes:

Computing & Technology

- BSc (Hons) in Information Technology
- BSc (Hons) in Information Technology with a specialism in
  - Information Systems Security
  - Database Administration
  - Cloud Computing
  - Network Computing
  - Mobile Technology
  - Business Information Systems
  - Internet of Things (IoT)
- BSc (Hons) in Software Engineering***
- BSc (Hons) in Computer Science***
- BSc (Hons) in Computer Science with a specialism in Data Analytics
- BSc (Hons) in Intelligent Systems
- BSc (Hons) in Internet Technology
- BSc (Hons) in Multimedia Technology
- BSc (Hons) in Computer Games Development
- BSc (Hons) in Computer Games Development with a specialism in Games Concept Art
- BSc (Hons) Cyber Security*
- BSc (Hons) Forensic Computing*
- BSc (Hons) in Business Information Technology*

Accounting, Banking, Finance & Quantitative Studies

- BA (Hons) in Accounting and Finance
- BA (Hons) in Accounting and Finance with a specialism in Forensic Accounting
- BA (Hons) in Accounting and Finance with a specialism in Taxation
- BA (Hons) in Accounting and Finance with a specialism in Forex and Investments
- BA (Hons) in Accounting and Finance with a specialism in Internal Audit
- Bachelor in Banking and Finance (Hons)
- Bachelor in Banking and Finance (Hons) with a specialism in Financial Planning
- Bachelor in Banking and Finance (Hons) with a specialism in Investment and Risk Management
- Bachelor in Islamic Banking and Finance (Hons)
- BSc (Hons) in Actuarial Studies

* UK 3+0 Degrees offered through APIIT.

** Commencement from 2018 onwards. For further details, kindly refer to our Course Counselors at Student Services Office.

- Personal Development & Study Methods
- Essentials of Web Applications
- Mathematics

ENGINEERING	DESIGN	CREATIVE MEDIA [Commencement from 2018 onwards]	INTERNATIONAL STUDIES
• Introduction to Business • Introduction to Visual & Interactive Programming • Engineering Mathematics • Public Speaking in English	• Imaging/Production Skills for Design • Major Project 1 • Design Theory and Practice 1 • Public Speaking in English	• Writing Skills for Journalists • Introduction to Journalism History & Practice • Global Business Trends • Public Speaking in English	• Introduction to International Relations • Individual, State & Society • Global Business Trends • Public Speaking in English
• Academic Research Skills • Mechanical Science • Engineering Science • Electrical and Electronic Principles • Co-Curricular	• Academic Research Skills • History of Design and Media • Major Project 2 • Design Theory and Practice 2 • Co-Curricular	• Academic Research Skills • Critical International Film Studies • Journalism and Society • English for Journalist • Co-Curricular	• Academic Research Skills • Issues in Development Studies • Economics for Business • Critical International Film Studies • Co-Curricular
- Engineering	**- Industrial Design & Brand Management** **- Animation & Visual Effects**	**- Creative Media Technology**	**- International Studies**
- Computing & Technology - Accounting, Finance, Banking & Quantitative Studies - Business & Management - Media & Mass Communications - Industrial Design & Brand Management - Animation & Visual Effects - Creative Media Technology - International Studies	- Computing & Technology - Accounting, Finance, Banking & Quantitative Studies - Business & Management - Media & Mass Communications - Creative Media Technology - International Studies	- Computing & Technology - Accounting, Finance, Banking & Quantitative Studies - Business & Management - Media & Mass Communications - Industrial Design & Brand Management - Animation & Visual Effects - International Studies	- Computing & Technology - Accounting, Finance, Banking & Quantitative Studies - Business & Management - Media & Mass Communications - Industrial Design & Brand Management - Animation & Visual Effects - Creative Media Technology

CREDIT / GRADE C in SPM / O-Level is required in:

Mathematics

Physics OR Chemistry OR Technical Science

Leading from APU Foundation to your Choice of Degree Studies; please note that a Credit Pass in Mathematics and Physics OR Chemistry at SPM / O-Level is required for the following programmes:

Engineering

- B.Eng (Hons) in Electrical & Electronic Engineering
- B.Eng (Hons) in Telecommunication Engineering
- B.Eng (Hons) in Mechatronic Engineering
- B.Eng (Hons) in Petroleum Engineering

Leading from APU Foundation to your Choice of Degree Studies:

Business & Management

- BA (Hons) in Business Management
- BA (Hons) in Business Management with a specialism in E-Business
- BA (Hons) in International Business Management
- BA (Hons) in Marketing Management
- BA (Hons) in Human Resource Management
- BA (Hons) in Media Marketing
- BA (Hons) in Tourism Management

International Studies*

- BA (Hons) International Relations

Industrial Design and Brand Management*

- BA (Hons) Product Design
- BA (Hons) Transport Design
- BA (Hons) Advertising and Brand Management

Animation & Visual Effects*

- BA (Hons) Animation
- BA (Hons) VFX : Visual Effects and Concept Design
- BSc (Hons) Digital Film and 3D Animation Technology
- BSc (Hons) CGI and Digital Effects

Creative Media Technology*

- BA (Hons) Advertising and Commercial Film Production**
- BA (Hons) Media (Film) Production**
- BSc (Hons) Film Production Technology**

PORTFOLIO REQUIRED

*** Student who choose to progress to BSc (Hons) in Software Engineering or BSc (Hons) in Computer Science will require Foundation from Computing & Technology route or Engineering route.

**** Compulsory for Student who choose to progress to BSc (Hons) in Actuarial Studies.

DIPLOMA PROGRAMME

KPT/JPS (R/23/4/0161) (A8890)11/18

Diploma in ELECTRICAL & ELECTRONIC ENGINEERING

The programme provides an overview of engineering principles, theories, frameworks & practices, in which SPM / O-Level leavers are able to be exposed to the field of engineering, as well as be prepared for employment upon their graduation.

This APIIT Diploma in Electrical & Electronic Engineering is designed to provide:

The Diploma in Electrical and Electronic Engineering programme prepares you for careers in the Electrical, Electronics, Telecommunication, and Manufacturing environments. This programme offers a broad-based study in the areas of electrical and electronic engineering.

- A full range of modules in the electrical and electronic engineering spectrum is provided.
- Other skills necessary for the workplace are also provided. These include communication skills and life-long learning skills.
- You will be equipped with the knowledge and expertise to face the challenges of business development in a wide range of electrical and electronic industries.

SEMESTER 1

In this semester, students will be introduced to preparatory modules which would be essential for them to embark on their journey in completion of their diploma.

Modules

- English for Academic Purpose
- Engineering Mechanics
- Foundation of Engineering Mathematics
- Practical IT Skills
- General Studies module

SEMESTER 2

Continuition from semester 1; students study Mathematics in more depth and are exposed in professional communication and business to prepare them with skills essential to prepare them in the working world.

Modules

- Professional Communications
- Business Environment
- Engineering Mathematics 1

SEMESTER 3

In semester 3, students will continue studying Mathematics. They would also learn to construct simple logic circuits and to apply cocepts of magnetic and electrical field. In addition to these, they would be also learn on atomic structure, properties and failures of materials such as polymers and metal alloy.

Modules

- Engineering Materials
- Engineering Mathematics 2
- Electrical and Electronic Principles

SEMESTER 4

From semester 4 onwards, students are introduced to core engineering modules. They would be learning on calculating currents and voltages in circuits using Kirchoff's Law, network theorems and nodal and mesh analysis.They also learn about various types of instruments used for engineering measurements and has the opportunity to use them; preparing themselves with sufficient knowledge on lab equipments before they experience more labs in coming semesters. Students are also exposed to computer based 3D modelling, Boolean Algebra, Karnaugh map and construction of digital arithmetic circuits.

Modules

- Analysis of Circuits
- Instrumentation and Measurements
- Design Principles
- Digital Electronics

SEMESTER 5

Students are taught on how to write assembly language programmes to programme the microprocessor and microcontroller and also to design, implement and test alorithms in C programming. In addition to this, students are also exposed to analogue circuits and its analysis.

Modules

- Microprocessor and Microcontroller Systems
- Analogue Electronics
- Problem Solving and Program Design using C
- Organisational Behaviour

*In addition to the above, all students are also required to successfully complete General Studies modules as stipulated by the Malaysian Qualification Agency, as well as fulfill credit requirements for Co-Curricular Activities.

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SEMESTER 6

During the final semester, students are taught to understand and solve problems involving three phase circuits, synchronous machines, transformers, transmission lines and power system protection, learn to interpret control process and transform the process into mathematical expression and learn on detailed construction, types, operating characteristics of DC & AC Machines and drives. Students also learn on modulation and demodulation of information carrying signals.

Modules

- Generation, Transmission and Protection
- Control Systems
- Electrical Machines and Drives
- Communication Engineering Principles

Further Studies

Upon successful completion of this programme, you will be eligible to progress into any of the following degree programmes offered at APU and APIIT:

- B. Eng (Hons) in Electrical & Electronic Engineering
- B. Eng (Hons) in Telecommunication Engineering
- B. Eng (Hons) in Mechatronic Engineering

COLLABORATIVE INDUSTRIAL PARTNERS

The School of Engineering at APU is very active in pursuing collaborative partnership with industries with an aim to expose students to professional engineering practices as early as possible in their studies and to provide students opportunities to solve real-world engineering problems as a form of grooming for engineering careers upon graduation. The School of Engineering has been collaborating with industries on two fronts, i.e. to work with professional and industrial institutions, and with multinational corporations and small & medium enterprises (SMEs).

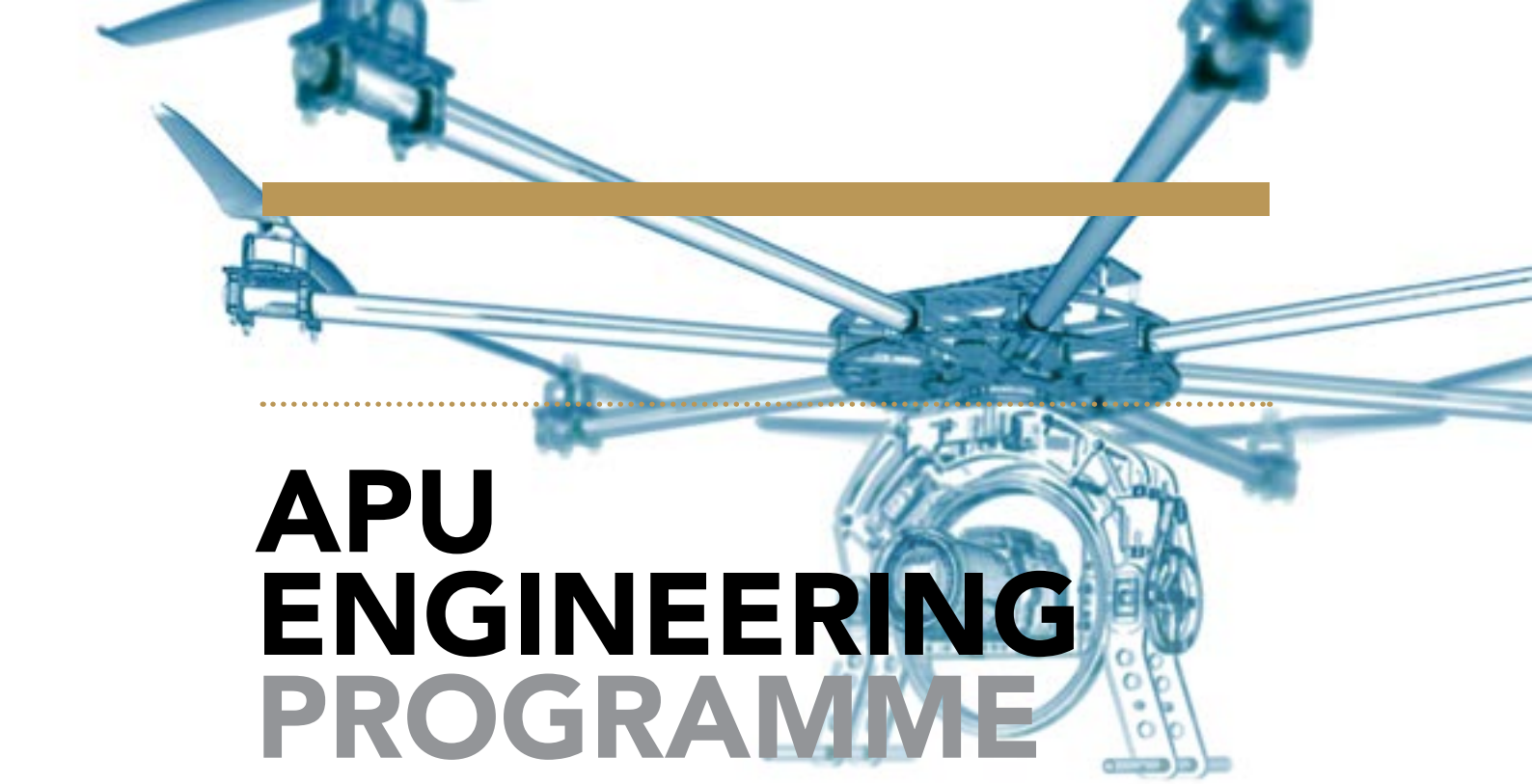
On collaboration with professional institutions, the School of Engineering collaborate closely with the Institution of Engineers Malaysia (IEM). Since then, IEM has been very supportive on all activities organised by the IEM-APU Student Section (IASS) via funding and provision of expertise on technical talks, seminars and workshops. All engineering students are also highly encouraged to participate in IEM activities as Student Member of the institute. The strong ties with IEM has provided students an early appreciation of the roles of engineers and the challenges ahead. For 4 consecutive years, our Final Year students were awarded the IEM Gold Medal Award in which their excellence and outstanding performance were highly recognised by IEM and the members of the industry.

The School of Engineering has also established a MOU with Malaysia Automation Technology Association (MATA) with an aim to expose students to automation technologies via internships, workshops, technical talks and opportunities to work on final-year projects at member companies of MATA. The partnership with MATA has been going from strength-to-strength since 2014, with the successful launch of Automation Technology Day both in 2015 and 2016. The event has provided students great opportunities to seek employment and internship with some of the MATA member companies such as Schneider Electric, Siemens, Festo, Omron, among others. In addition, students also benefitted from the technical talks on Industrial 4.0, Internet of Things (IoT) and workshops on PLC & Pneumatics etc.

The School of Engineering also champions industrial collaboration with companies, be it multinational corporations or SMEs. The companies typically provide final-year project (FYP) titles for qualified 4th Year students to work on. A number of projects have been initiated and completed successfully with companies such as Top Glove, ABB, Daikin R&D, Mawea Industries, ERL Maintenance Support, Signal Transmission, among others. In addition, many such projects resulted from the proactive efforts of the lecturers in establishing Memorandum of Agreements (MOAs) with companies. All these have resulted in a win-win situation whereby companies benefit from the outcome of the research and development efforts while students are able to solve real-work complex engineering problems by leveraging on resources and expertise from the industries.

Final-Year Student and Mentor Winning ITEX Gold and Best Sustainability Awards. On Wind Turbine in FYP Collaboration with ERL Maintenance Sdn. Bhd.

Our Final Year Engineering students have attained the IEM Gold Medal for 4 consecutive years.



APU ENGINEERING PROGRAMME

B. ENG (HONS) IN ELECTRICAL & ELECTRONIC ENGINEERING

An Electrical or Electronic Engineer maybe responsible for research, design, development, manufacturing and management of complex hardware and software systems and reliable, cost effective devices, many involving the use of new information and computer intensive technologies. These include:

- Integrated electronic systems
- Renewable energy systems
- Generation, transmission and distribution of electrical power
- Instrumentation in electrical and electronic systems
- Manufacturing
- Microelectronics
- Photoelectronics

B. ENG (HONS) IN TELECOMMUNICATION ENGINEERING

Telecommunication Engineers design, develop, test and maintain telecommunication systems to ensure fast and steady transmission and receiver of information.. Telecommunication engineering will appeal to those who are interested in the following field:

- Satellite and mobile communication
- Signal processing
- Optical fibres and photonics
- Real-time embedded systems
- Data networks, data coding, compression, encryption and transmission
- Microwave & RF Communications

B. ENG (HONS) IN MECHATRONIC ENGINEERING

Mechatronic Engineering is concerned with the creation, design and building of intelligent machines. This new breed of engineer has to master skills in mechanical, electronic and computer engineering and work in a hybrid manner, meeting an ever-increasing need in industry where complexity of projects is rising and resources are limited. The main areas of activity are:

- Fundamental design and build - ways of embedding intelligence and interfacing to the real world
- Process control - plant condition monitoring and control
- Advance robotics and intelligent Machines
- Image Processing and collision avoidance
- Industrial system such as CIM system, CAD/CAM system
- Design and develop a Mechatronics system

B. ENG (HONS) IN PETROLEUM ENGINEERING

Petroleum engineers travel to where petroleum reservoirs are known to exist. They define and develop the reservoirs, and produce oil and gas with maximum profitable recovery. Petroleum engineering allows one to specialize in several different oil & gas specialties, each with its own unique challenges and rewards. The careers and job activity areas are as a:

- Drilling engineer, working with geologists and contractors in designing and supervising drilling operations.
- Production engineer, developing processes and equipment to optimize oil and gas production.
- Reservoir engineer and help determine ideal recovery processes, estimate the number of wells that can be economically drilled, and simulate future performance using sophisticated computer models.
- Manager, an entrepreneur, economist, or environmental/safety specialist.

PROGRAMME EDUCATIONAL OBJECTIVES

PEO	ELECTRICAL AND ELECTRONIC ENGINEERING (EEE)	MECHATRONIC ENGINEERING (ME)	TELECOMMUNICATION ENGINEERING (TE)	PETROLEUM ENGINEERING (PE)
PEO1	Be a practicing engineer contributing to the development of Electrical or Electronic Engineering while demonstrating professionalism.	Be a practicing engineer contributing to the development of Mechatronic Engineering while demonstrating professionalism.	Be a practicing engineer contributing to the development of Telecommunication or Electronic Engineering while demonstrating professionalism.	Be a practicing engineer contributing to the development of Petroleum Engineering while demonstrating professionalism.
PEO2	Pursue engineering innovation via career advancement opportunities and/ or advanced studies in Electrical or Electronic Engineering.	Pursue engineering innovation via career advancement opportunities and/ or advanced studies in Mechatronic Engineering.	Pursue engineering innovation via career advancement opportunities and/ or advanced studies in Telecommunication or Electronic Engineering.	Pursue engineering innovation via career advancement opportunities and/ or advanced studies in Petroleum Engineering.

PROGRAMME OUTCOMES

The students, upon completion of their study, should attain the following outcomes:

PO1 - Ability to gain and apply principles of Mathematics, Science and Engineering to the solutions of complex engineering problems.

PO2 - Ability to undertake complex engineering problem identification and apply engineering principles to solve them.

PO3 - Ability to select and use suitable tools and techniques for complex engineering problems.

PO4 - Ability to investigate complex engineering problems using research techniques.

PO5 - Ability to design innovative solutions for complex engineering problems.

PO6 - Ability to communicate effectively and professionally on complex engineering activities.

PO7 - Ability to comprehend and demonstrate good practices of engineering in sustainable development and environmental considerations for the solutions of complex engineering problems.

PO8 - Ability to engage in professional engineering practice for safety, health, social, cultural and legal responsibilities in devloping solutions for complex engineering problems.

PO9 - Ability to execute the responsibilities of an Engineer professionally and ethically.

PO10 - Ability to function effectively as a team leader or a member in a team within a multi-disciplinary settings.

PO11 - Ability to recognize the need for, and be able to engage in independent and life-long learning towards continuous professional development.

PO12 - Ability to demonstrate entrepreneurship skills, engineering project management and economic decision making in multidisciplinary environments.

B. Eng (Hons) in **ELECTRICAL & ELECTRONIC ENGINEERING**

KPT/JPS(R2/522/6/0060)(MQA/FA4013)12/17

Duration:
4 years full-time

This programme is specifically designed to provide students with:

- High-quality undergraduate engineering education by providing students with a curriculum that is firmly grounded in electrical & electronic engineering fundamentals.
- A study in both the areas of electronics fundamentals as well as electrical power systems including the areas of generation, transmission and distribution of electrical energy.

Career options

- Electrical Engineer
- Power Engineer
- Design Engineer
- Product Engineer
- Electronics Engineer
- QA/QC Engineeer
- Sales Engineer
- Support Engineer
- R&D Engineer
- Power Plant Engineer
- Optical Engineer
- Transmission Engineer

At a glance

YEAR 1

Students will understand the basic principles of engineering in the areas of Circuit Analysis, Engineering Materials, Engineering Statics & Dynamics and Engineering Design. Other modules aim to provide the basic academic skills required to meet the demands of employers, as well as thorough grounding in principles of IT and management. Important and relevant skills for managing activities and for their own independent learning are also introduced.

YEAR 2

Here, students start specialising in modules that develop the necessary underlying knowledge and skills in Electrical & Electronic Engineering with modules such as Electromagnetic Field Theory, Engineering Software & Applications, Analogue Electronics, Digital Electronics, Signals & Linear Systems, Electrical Machines 1& 2 and Electrical Power Utilisation. Engineering Mathematics is provided for the better understanding of the engineering modules.

YEAR 3

Specialised knowledge and skills in the areas of Control Engineering, Communication Engineering Principles, Multimedia Applications, Computer Architecture, Microprocessor Systems & Embedded Software, Numerical Methods and Statistics, Generation, Transmission and Distribution of Electrical Power, Power Electronics & Drives and Power System Analysis are the critical focus of this level. There is further development of the ability to apply relevant engineering skills with strong critical thinking and analysis. Independent learning continues in all modules.

INTERNSHIP

Students will undertake an Internship/Industrial Training for a minimum period of 12 weeks to prepare them for a smooth transition from the classroom to the working environment.

YEAR 4

The final year Engineering modules provide the necessary industry application and technological skills which become very useful for employment upon graduation. Students' personal and professional development, technical capability and understanding of how to innovate, generate and manage the creation of new ideas will be enhanced. Students will deliver several Engineering Projects where they will demonstrate higher level critical thinking, analysis and solutions development skills which will enhance their employability.

Module outline

YEAR 1
Common Modules
- Analysis of Circuits
- Engineering Materials
- Introduction to Management
- Engineering Mathematics 1
- Introduction to C Programming
- Engineering Mathematics 2
- Instrumentation & Measurement
- Engineering Design
- Engineering Statics & Dynamics

YEAR 2
Common Modules
- Analogue Electronics
- Engineering Mathematics 3
- Electromagnetic Field Theory
- Digital Electronics
- Engineering Software Applications
- Signals and Linear Systems

Specialised Modules
- Electrical Machines 1
- Electrical Power Utilization
- Electrical Machines 2

YEAR 3
Common Modules
- Control Engineering
- Communication Engineering Principles
- Multimedia Applications
- Computer Architecture
- Numerical Methods & Statistics
- Microprocessor Systems & Embedded Software

Specialised Modules
- Generation, Transmission & Distribution of Electrical Power
- Power Electronics & Drives
- Power System Analysis

Elective Modules (choose 1)
- Digital Signal Processing
- Optical Communication Networks

INTERNSHIP (12 weeks)

YEAR 4
Common Modules
- Engineering Project Management
- Project Phase I (Investigation)
- Project Phase II (Implementation)
- Group Design Project
- Engineer in Society

Specialised Modules
- Analogue Integrated Circuits and Systems
- High Voltage Engineering

Elective Modules (choose 1)
- Product Creation Technology
- VLSI Design

MOHE Compulsory Subjects *
- Malaysian Studies
- Moral Studies
- Tamadun Islam dan Tamadun Asia (TITAS)
- Bahasa Malaysia
- Co-curriculum
- Ethic Relations

*(*All students are required to successfully complete the General Studies modules as stipulated by the Malaysian Qualification Agency upon graduation)*

B. Eng (Hons) in TELECOMMUNICATION ENGINEERING

KPT/JPS(R/523/6/0116)(MQA/FA4014)12/17

Duration:
4 years full-time

This programme is specifically designed to provide students with:

- High-quality undergraduate engineering education by providing students with a curriculum that is firmly grounded in telecommunication engineering fundamentals.
- A study in the areas of telecommunication engineering which covers the structure of mobile computing systems, telecommunication systems & networks, and software systems.
- The technical skills to cover the ever demanding expertise in the fields of microwave and optical Transmission, satellite communications and RF communications.

Career options

- RF Engineer
- Network Engineer
- Test Engineer
- Electronics Engineer
- Sales Engineer
- Product Engineer
- Support Engineer
- R&D Engineer
- Infrastructure / Utility Engineer
- Optical Engineer
- Telecommunication Engineer

At a glance

YEAR 1

Students will understand the basic principles of engineering in the areas of Circuit Analysis, Engineering Materials, Instrumentation & Measurement and Engineering Design. Other modules aim to provide the basic academic skills required to meet the demands of employers, as well as thorough grounding in principles of IT and management. Important and relevant skills for managing activities and for their own independent learning are also introduced.

YEAR 2

Here, students start specialising in modules that develop the necessary underlying knowledge and skills in Telecommunication Engineering with modules such as Electromagnetic Field Theory, Engineering Software & Applications, Analogue Electronics, Digital Electronics, Analogue Communication, Digital Communication, Introduction to Electrical Systems, Signals & Linear Systems and more. Engineering Mathematics is provided for the better understanding of the engineering modules.

YEAR 3

Specialised knowledge and skills in the areas of Control Engineering, Multimedia Applications, Computer Architecture, Microprocessor Systems & Embedded Software, Digital Signal Processing, Numerical Methods and Statistics, Antenna & Propagation, Modern Communication Systems, and Optical Communication & Networks are the critical focus of this level. There is further development of the ability to apply relevant engineering skills with strong critical thinking and analysis. Independent learning continues in all modules.

INTERNSHIP

Students will undertake an Internship/Industrial Training for a minimum period of 12 weeks to prepare them for a smooth transition from the classroom to the working environment.

YEAR 4

The final year Engineering modules provide the necessary industry application and technological skills which become very useful for employment upon graduation. Students' personal and professional development, technical capability and understanding of how to innovate, generate and manage the creation of new ideas will be enhanced. Students will deliver several Engineering Projects where they will demonstrate higher level critical thinking, analysis and solutions development skills which will enhance their employability.

Module outline

YEAR 1
Common Modules
- Analysis of Circuits
- Engineering Materials
- Introduction to Management
- Engineering Mathematics 1
- Introduction to C Programming
- Engineering Mathematics 2
- Instrumentation & Measurement
- Engineering Design

YEAR 2
Common Modules
- Analogue Electronics
- Engineering Mathematics 3
- Electromagnetic Field Theory
- Digital Electronics
- Engineering Software & Applications
- Signals and Linear Systems
- Introduction to Electrical Systems

Specialised Modules
- Analogue Communication
- Digital Communication

YEAR 3
Common Modules
- Control Engineering
- Multimedia Applications
- Computer Architecture
- Numerical Methods & Statistics
- Microprocessor Systems & Embedded Software
- Digital Signal Processing

Specialised Modules
- Antenna & Propagation
- Modern Communication System
- Optical Communication & Networks

INTERNSHIP (12 weeks)

YEAR 4
Common Modules
- Engineering Project Management
- Project Phase I (Investigation)
- Project Phase II (Implementation)
- Group Design Project
- Engineer in Society

Specialised Modules
- Microwave & RF Communication

Elective Modules (choose 2)
- Analogue Integrated Circuits and Systems OR VLSI Design (Sem 1)
- Satellite and Mobile Communication OR DCCS (Sem 2)

MOHE Compulsory Subjects *
- Malaysian Studies
- Moral Studies
- Tamadun Islam dan Tamadun Asia (TITAS)
- Bahasa Malaysia
- Co-curriculum
- Ethic Relations

*(*All students are required to successfully complete the General Studies modules as stipulated by the Malaysian Qualification Agency upon graduation)*

B. Eng (Hons) in **MECHATRONIC ENGINEERING**

KPT/JPS (R/523/6/0191)(MQA/FA4084)12/19

Duration:
4 years full-time

This programme is specifically designed to provide students with:

- High-quality undergraduate engineering education by providing students with a curriculum that is firmly grounded in Mechatronic engineering fundamentals.
- A study of basic engineering sciences and fundamentals of mechanical, electrical, electronics and computer engineering. Students will be able to integrate these four disciplines.
- The technical skills to design, analyse and test "intelligent" products or processes that incorporate suitable controller, sensor and mechatronic devices for robotics and automation.

Career options

- Automation Engineer
- Mechatronic Engineer
- Mechanical Engineer
- Service Engineer
- QA/QC Engineer
- Sales Engineer
- Support Engineer
- R&D Engineer
- Manufacturing Engineer
- IoT Engineer
- Robotics Engineer
- Plant Engineer
- Design Engineer

At a glance

YEAR 1

Students will understand the basic principles of engineering in the areas of Circuit Analysis, Engineering Materials, Instrumentation & Measurement and Engineering Design. Other modules aim to provide the basic academic skills required to meet the demands of employers, as well as thorough grounding in principles of IT and management. Important and relevant skills for managing activities and for their own independent learning are also introduced.

YEAR 2

Here, students start specialising in modules that develop the necessary underlying knowledge and skills in Mechatronic Engineering with modules such as Electromagnetic Field Theory, Engineering Software & Applications, Analogue Electronics, Digital Electronics, Sensor & Actuators, Introduction to Electrical System, Signals & Linear Systems and Strength of Materials. Engineering Mathematics is provided for the better understanding of the engineering modules.

YEAR 3

Specialised knowledge and skills in the areas of Machine Design, CAD/CAM, Control Engineering, Communication Engineering Principles, Microprocessor Systems & Embedded Software, Power Electronic & Drives and Numerical Methods and Statistics are the critical focus of this level. This is a further development of the ability to apply relevant engineering skills with strong critical thinking and analysis. Independent learning continues in all modules.

INTERNSHIP

Students will undertake an Internship/Industrial Training for a minimum period of 12 weeks to prepare them for a smooth transition from the classroom to the working environment.

YEAR 4

The final year Engineering modules provide the necessary industry application and technological skills which become very useful for employment upon graduation. Students' personal and professional development, technical capability and understanding of how to innovate, generate and manage the creation of new ideas will be enhanced. Students will deliver several Engineering Projects where they will demonstrate higher level critical thinking, analysis and solutions development skills which will enhance their employability.

Module outline

YEAR 1
Common Modules
- Analysis of Circuits
- Engineering Materials
- Introduction to Management
- Engineering Mathematics 1
- Introduction to C Programming
- Engineering Mathematics 2
- Instrumentation & Measurement
- Engineering Design
- Engineering Statics & Dynamics

YEAR 2
Common Modules
- Analogue Electronics
- Introduction to Electrical Systems
- Engineering Mathematics 3
- Electromagnetic Field Theory
- Digital Electronics
- Engineering Software & Applications
- Signals and Linear Systems

Specialised Modules
- Strength of Material
- Sensor & Actuators
- Intermediate Robotics

YEAR 3
Common Modules
- Control Engineering
- Communication Engineering Principles
- Numerical Methods & Statistics
- Microprocessor Systems & Embedded Software

Specialised Modules
- Advanced Robotics
- CAD/CAM
- Machine Design
- PLC & Pneumatic System
- Fluid Mechanics

Elective Modules (choose 1)
- Digital Signal Processing
- Power Electronics & Drives

INTERNSHIP (12 weeks)

YEAR 4
Common Modules
- Engineering Project Management
- Project Phase I (Investigation)
- Project Phase II (Implementation)
- Engineer in Society
- Group Design Project

Specialised Modules
- Product Creation Technology
- Thermodynamics and Heat Transfer

MOHE Compulsory Subjects *
- Malaysian Studies
- Bahasa Malaysia
- Moral Studies
- Co-curriculum
- Tamadun Islam dan Tamadun Asia (TITAS)
- Ethic Relations

*(*All students are required to successfully complete the General Studies modules as stipulated by the Malaysian Qualification Agency upon graduation)*

B. Eng (Hons) in **PETROLEUM ENGINEERING**

KPT/JPS(N/544/6/0004)10/20

Duration:
4 years full-time

This programme is specifically designed to provide students with:

- High quality undergraduate engineering education that combines petroleum, gas and exploration engineering to cater for the ever-demanding oil and gas industry.
- The ability to apply engineering principles to the design, development and operation of systems for locating, extracting, processing and refining crude petroleum and natural gas, including mining and drilling systems, processing and refining systems and facilities, storage facilities, transportation systems, and related environmental and safety systems.
- Preparation for students in psychomotor skills, critical thinking skills and good communication skills.

Career options

- Field Engineer
- Production Engineer
- Commissioning Engineer
- Reservoir Engineer
- Well Engineer
- Drilling Engineer
- Process Engineer
- Oil & Gas Design Engineer
- Plant Engineer
- Well Testing Engineer

At a glance

YEAR 1

Students will understand the basic principles of engineering in the areas of Petroleum Engineering, Petroleum Geology, Engineering Materials etc. Other modules aim to provide the basic academic skills required to meet the demands of employers, as well as thorough grounding in principles of IT and management. Important and relevant skills for managing activities and for their own independent learning are also introduced.

YEAR 2

Here, students start specialising in modules that develop the necessary underlying knowledge and skills in Petroleum Engineering with modules such as Rocks & Fluid Properties, Formation Evaluation & Well Logging etc. Other modules such as Introduction to Electrical System, Strength of Materials are provided for the better understanding of the Electronic & Mechanical engineering skills.

YEAR 3

Specialised knowledge and skills in the areas of Drilling Engineering, Reservoir Engineering, Well Design & Completion, Sustainable Development, Production Engineering, Well Testing, Reservoir Simulation and Numerical Methods & Statistics are the critical focus of this level. There is further development of the ability to apply relevant engineering skills with strong critical thinking and analysis. Independent learning continues in all modules.

INTERNSHIP

Students will undertake an Internship/Industrial Training for a minimum period of 12 weeks to prepare them for a smooth transition from the classroom to the working environment.

YEAR 4

The final year Engineering modules provide the necessary industry application and technological skills which become very useful for employment upon graduation. Students' personal and professional development, technical capability and understanding of how to innovate, generate and manage the creation of new ideas will be enhanced. Students will deliver several Engineering Projects where they will demonstrate higher level critical thinking, analysis and solutions development skills which will enhance their employability.

Module outline

YEAR 1
Common Modules
- Engineering Materials
- Engineering Statics and Dynamics
- Introduction to Management
- Engineering Mathematics 1
- Introduction to C Programming
- Engineering Mathematics 2
- Engineering Design

Specialised Modules
- Fundamental of Petroleum Engineering
- Petroleum Geology

YEAR 2
Common Modules
- Engineering Mathematics 3
- Introduction to Electrical Systems
- Strength of Materials

Specialised Modules
- Fluid Mechanics
- Thermodynamics & Heat Transfer
- Element of Reservoir Rock and Fluid Properties
- Formation Evaluation & Well Logging
- Reservoir Engineering
- Safety in Oil & Gas Engineering

YEAR 3
Common Modules
- Numerical Methods & Statistics

Specialised Modules
- Drilling Engineering
- Reservoir Engineering
- Well Design & Completion
- Sustainable Development
- Production Engineering
- Well Testing
- Reservoir Simulation

INTERNSHIP (12 weeks)

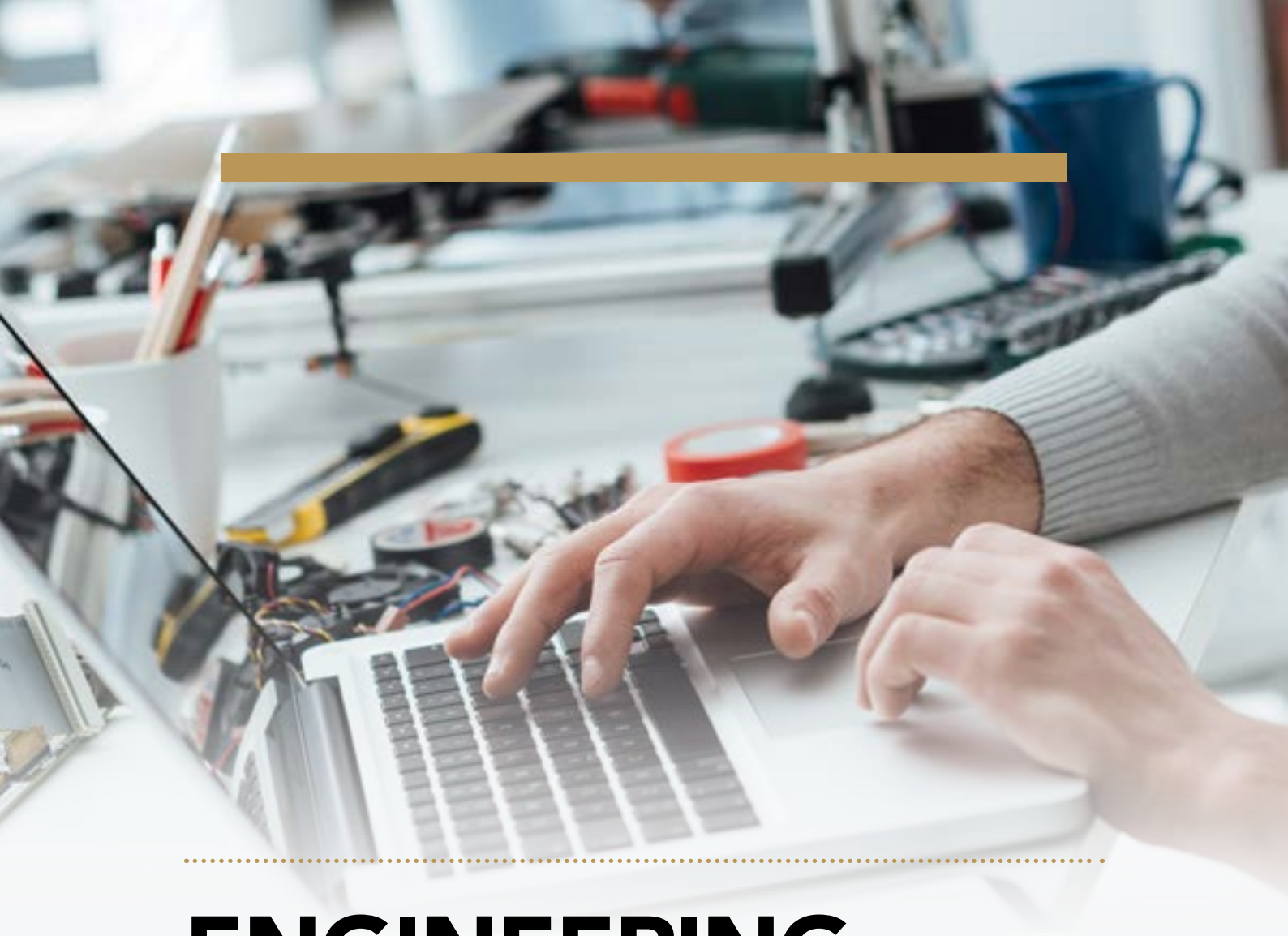
YEAR 4
Common Modules
- Engineering Project Management
- Project Phase I (Investigation)
- Project Phase II (Implementation)
- Engineer in Society

Specialised Modules
- Field Development Project

Elective Modules (choose 2)
- Advanced Drilling Engineering OR Advance Well Completion
- Gas Engineering OR Enhanced Oil Recovery

MOHE Compulsory Subjects *
- Malaysian Studies
- Moral Studies
- Tamadun Islam dan Tamadun Asia (TITAS)
- Bahasa Malaysia
- Co-curriculum
- Ethic Relations

*(*All students are required to successfully complete the General Studies modules as stipulated by the Malaysian Qualification Agency upon graduation)*



ENGINEERING YOUR SUCCESS

APU'S SCHOOL OF ENGINEERING,
OUR ULTIMATE FORMULA TO SUCCESS:

OUTCOME BASED CURRICULUM

+

VALUE ADDED SKILLS TRAINING

+

STUDENT INDUSTRIAL ACTIVITIES

+

PROFESSIONAL DEVELOPMENT

ENGINEERING PROGRAMME STRENGTHS



OUTCOME BASED EDUCATION

Our curriculum is a collaborative effort, between our team of academicians and our Industry Advisory Panel (IAP). We design our curriculum based on the needs of the industry, to ensure Employability Edge among our students, while maintaining our standards, by ensuring our programmes are full-accreditation compliant.

Our programme delivery is based on Outcome Based Education (OBE), in which high graduate employability is our end result.

VALUE-ADDED SKILLS TRAINING

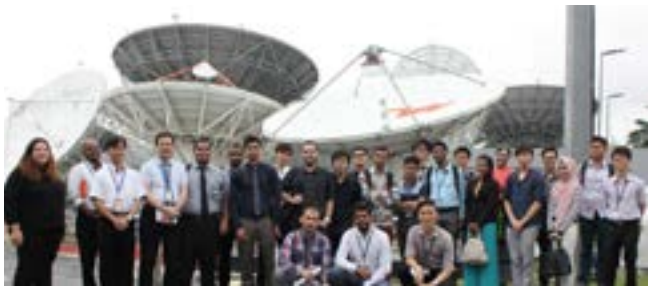
Apart from technical knowledge in the Engineering field, we highly believe that students should also possess life skills such as critical thinking, communication and professionalism. Our Problem Based Learning (PBL) leads to producing critical and innovative graduates, in which multiple wins in various industry-standard-competitions are our best testaments of success.

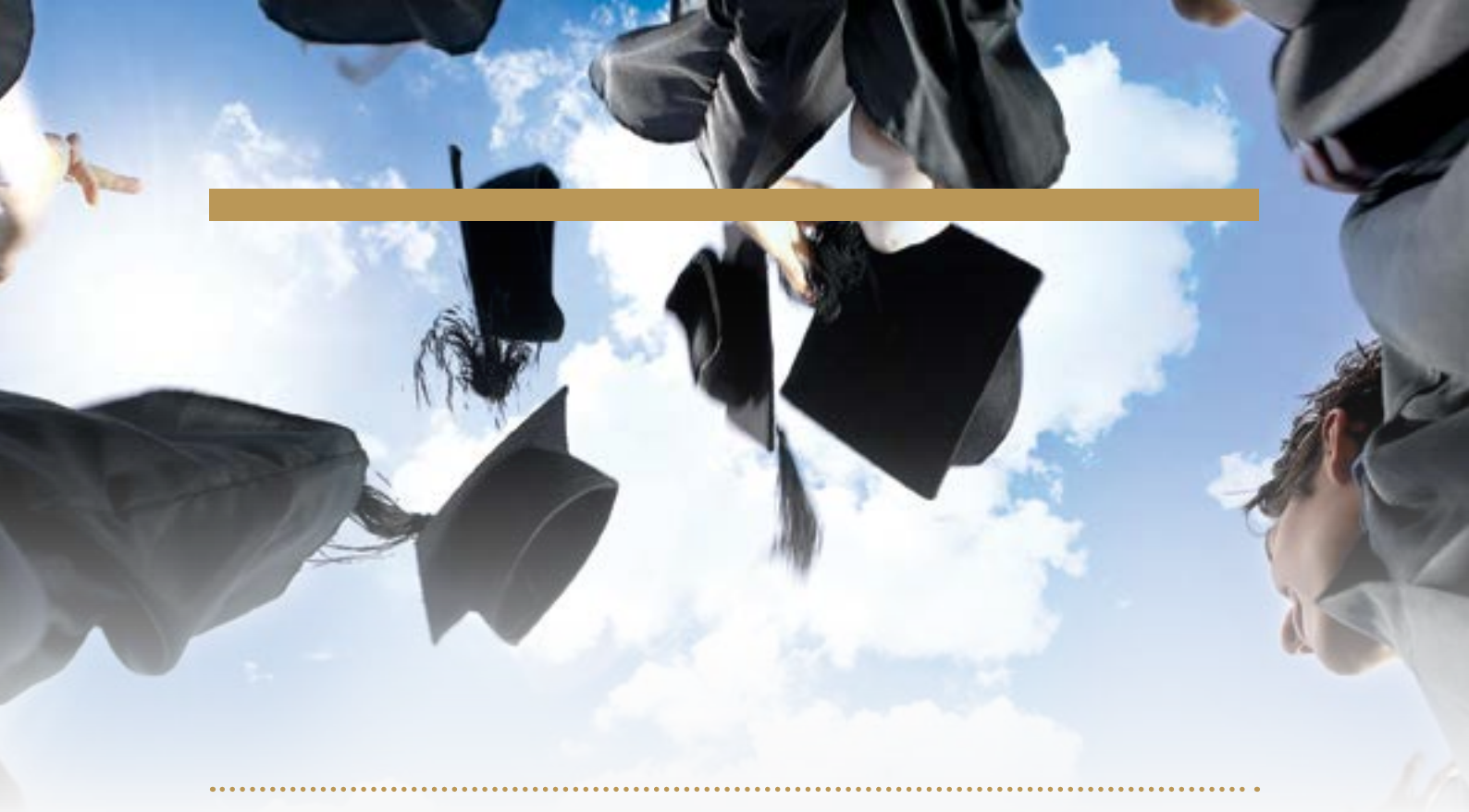
STUDENT EXPERIENCES

Our academicians believe that learning should not be confined within classrooms and lecture halls. As early as the first year of their study, students possess the opportunities to gain hands-on exposure to the industry, to experience life as a professional engineer, as well as to build connections with professional engineers through regular industrial visits to manufacturing plants, factories, sites and offices of our industry partners, such as MEASAT, Top Glove, ABB and more.

The IEM-APU Student Section (IASS) is a committee for the students by the students. Since its establishment in 2015, IASS never failed to organize monthly technical events in collaboration with IEM, to boost students' managerial skills, innovation and presentation skills while learning to manage and organize professional-standard events from A to Z.





95%+ OF OUR GRADUATES ARE EMPLOYED BY GRADUATION

KENNY YONG CHEE YEEN (Malaysia)
B.Eng (Hons) Mechatronic Engineering, Class of 2013
Project Engineer - Schneider Electric Industries Malaysia

"APU exposes me to work place professionalism from the very beginning, it has shaped me to be the employee I am today. I did not understand the full extend to the ways of university till the day I stepped into the working world and for that, I am appreciative today. APU is the university that produces graduates that is ready and more equipped than others to face the world."

SABRINA, FONG KAH YAN (Malaysia)
B.Eng (Hons) in Mechatronic Engineering, Class of 2013
Process Engineer - NXP Semiconductor (formerly known as Freescale Semiconductor)

"Receiving my degree from APU gave me the skills and knowledge needed in my engineering career. But untimely, APU and its faculty members prepared me for the professional working environment and instill independence and importance of continuous learning that made me a successful engineer I am today."

WHAT OUR ALUMNI SAY...

LIW SUN HUNG (Malaysia)
B.Eng (Hons) in Telecommunication Engineering, Class of 2014
Product Engineer - Huawei Technologies, Malaysia

"As the beginning of a journey, the first thing you should do is to throw away your map on hand and start with you own drawing. APU is where my innovative path with sparkling ideas begun."

ELAHEH SHAKERI (Iran)
B.Eng (Hons) in Mechatronic Engineering, Class of 2016
Project Engineer - Coesia Group, Italy

" Today I'm proud to be considered as the best of the best engineering graduates in the globally leading supplier of high-tech machinery. APU was where I created my future in."

AWAIS FAROOQI (Pakistan)
B. Eng (Hons) in Mechatronic Engineering, Class of 2014
Co-Founder - Technocentric Solutions Sdn Bhd

"Whichever industry I have been to, after my engineering degree from APU I am always valued by the proficient engineers for my practical & innovative knowledge of technology, APU has given me a virtuous platform as an engineer to work independently for the course projects. This self-governing process of earning knowledge has developed me to become a best research and development assistant to any industry for its enhancement both in technology and business-sector."

MOHAMMAD BILAL GOOLFREE (Mauritius)
B. Eng (Hons) in Mechatronic Engineering, class of 2016
Application Engineering - IME Technology Sdn Bhd

"I stepped in APU as a shy, reserved person and throughout the years, I had built up my personality to becoming an individual that people looked up to for advice and motivation - thanks to the numerous clubs and societies that I had the chance to join. Had it not been for the nearly 5 years I spent in APU, I'd still be struggling to tackle simple issues in daily life. No doubt that formal classes are important, but the real education starts outside, by interacting with others. Indeed, there were ups and downs in this memorable journey. But if I had the chance, I would experience it all over again. As my father rightly said, University is where you start living."

ANDREW TEH BOON KHENG (Malaysia)
B. Eng (Hons) in Mechatronic Engineering, Class of 2015
Technical Support Engineer - Keyence Corporation

"APU provided me a fabulous platform to equip myself to enter the industrial world, from organizing various engineering events to managing a team. Studying at Asia Pacific University has given me a lot of memorable and happy moments. It provided many opportunities for students to learn and explore. In the university's engineering community, IEM-APU Student Section, I was one of the committee representatives to assist in different events such as seminar coordination, industrial visit arrangements and technical workshops to skill up other studetns and so on. It was such an honour to be enrolled in Asia Pacific University and be involved in this student section, as I could develop my management skills .The student section established a bridge between our internal communities and other universities to reinforce students' experiences during their university life. These experiences made my student life eventful and valuable during my study at Asia Pacific University."

APU WORLD-CLASS R&D AND INNOVATION

Academic Research

For our staff, learning is a continuous journey where we keep abreast with the latest knowledge in a variety of fields. Our academic staff publish papers and present them at conferences worldwide. Some of the areas of research include:

- Regenerative Power
- Renewable/Green Energy
- Sustainable Development
- Rapid Prototyping
- Material Science
- Modeling of Quantum Dot Systems
- Silicon-based Microdosimeter Applications
- Humanoid Robot development
- Active RFID System in Multi-Hop Wireless Sensor Network
- Automatic Object Retrieval Systems Based on Speech Dictation Technology
- Robotics Haptic and Tactile Sensor development
- Robotics Vision development
- Biomedical Robotics
- Seismic Imaging
- Reservoir Engineering
- Noise Filtration
- Sub-Sea Cable Trenching

INNOVATIVE INDUSTRY-BASED RESEARCH CENTRES @ APU

Asia Pacific Centre of Robotics Engineering

The APCORE (Asia Pacific Center of Robotics Engineering) is an initiative by APU School of Engineering to develop the robotic engineering field within the school. The center undertakes research in various areas of robotics especially humanoid robot development, robotic sensors, robotic vision and biomedical robotics. This will involve lectures by industrial experts and in-house research activities in these areas. The center is also a meeting point for students and lecturers to share ideas and assess their work, as well as a platform for collaboration with industry to keep the research and technology used to be relevant and current. APCORE aims to help lecturers and students to gain knowledge with get hands on experience through involvement in continuous development of robotics technology. Some of projects conducted by APCORE include the development of tele-presence and humanoid robot, participations in international exhibitions and competitions..

Asia Pacific Centre of Analytics (APCA)

Asia Pacific Centre of Analytics – APCA is established in association of multi-discipline expertise from various schools in APU. The vision of APCA is to establish the foundation to develop young data scientists to meet the demands in Malaysia and global. The expertise and experience cover areas of Data Management, Machine Learning, Behavioral Studies, Business Cases, Statistics and Engineering. The formation directs to broad activities in Big Data ecosystem, in line with National vision to make Big Data Analytics the catalyst for nation's economic development: Creating new area in BDA studies, Embedding BDA topics into Undergraduate and Postgraduate studies, Development of Educational and Industrial Framework, Creating Project Marketplace, Research project commercialization and crowdfunding, Consultancy and Training Services.

Centre for Research and Development of IoT (CREDIT)

The establishment of Centre for Research and Development of IoT (CREDIT) is a significant milestone that supports the objectives of the Malaysia National IoT Strategic Roadmap initiative. CREDIT aims to provide students and academic staff the opportunities to access IoT-related knowledge and know-how through various activities. It also acts as a hub to support commercialising potential state-of-the-art solutions resulting from R&D projects. Additionally it allows students to be engaged in a current key requirement sector which will increase employability rates.

APU IEEE Student Branch

APU IEEE Student Branch, which is part of the Malaysia Section under Region 10 (Asia and Pacific), was formulated in 2014. As a member of IEEE, APU students have a wide variety of resources and valuable opportunities to advance their knowledge and future career. APU Student Branch provides numerous educational, technical, and professional development for its members through special projects, activities, meetings, tours and field trips. Following three student technical chapters namely Computer Society, Communication Society and Computational Intelligence are also established under the Student Branch which offer the opportunity for APU student members to network with peers, develop activities for professional development, and share expertise through technical exchange.

APU Motorsports Club

The Club focuses on performance and eco-friendly competitions. The academic staff and students work on constructing efficient cars based on materials study, structural engineering, engine optimum performance and control mechanisms for local races such as EIMA, GT 128, IPMA and Formula Y.

PREPARING STUDENTS FOR THE INDUSTRY

INTERNSHIPS & INDUSTRIAL TRAINING

Prior to starting the final year of study APU students will do internship or industrial training placements for 12 weeks. This is to enable students to gain industrial or professional learning experiences to develop transferable skills for employability so as to enhance their future value to employers. Familiarity with all common processes is essential and exposure at a practical level to a wide variety of processes is required at a level appropriate to young professional. Whilst it is clearly desirable for students to get a feel for the skills involved, the central aim is to achieve appreciation. Industrial training is a key component of learning in an integrated academic curriculum.

Taking this exposure as an important element in the curriculum APU ensures the smooth process of facilitation by starting the process a semester by guiding and nurturing the students via workshops and classes dedicated to;

1. Development of a CV
2. Attending Interviews
3. Working professionally and ethically at a organization

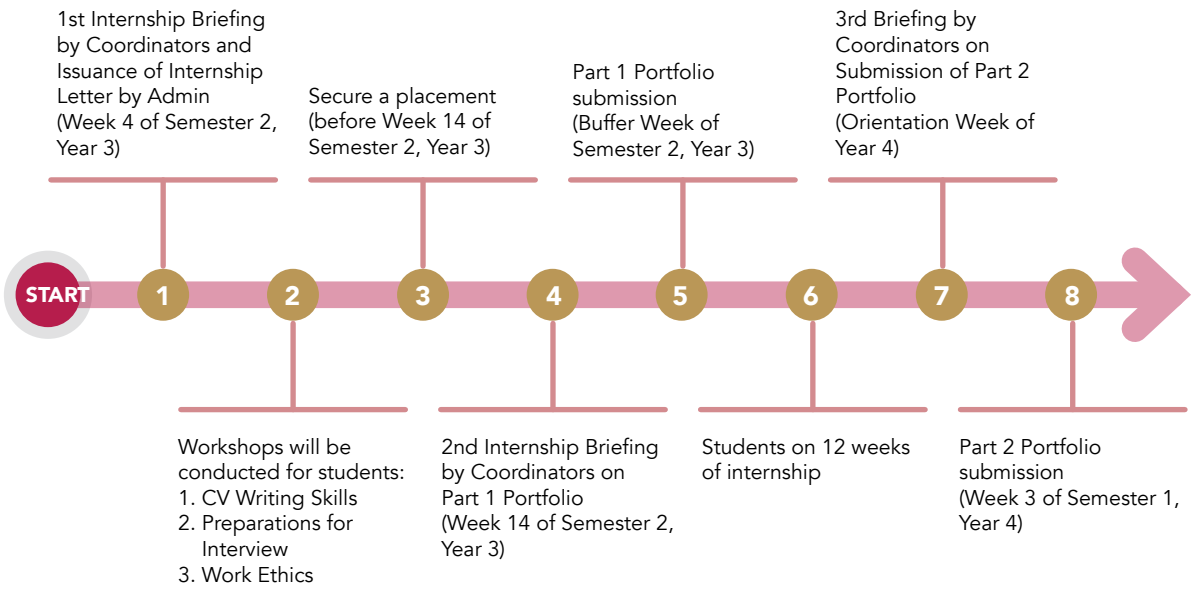
APU also has dedicated Internship Officers per school and a company pool bank in which student can choose from in terms of writing in or direct placements.

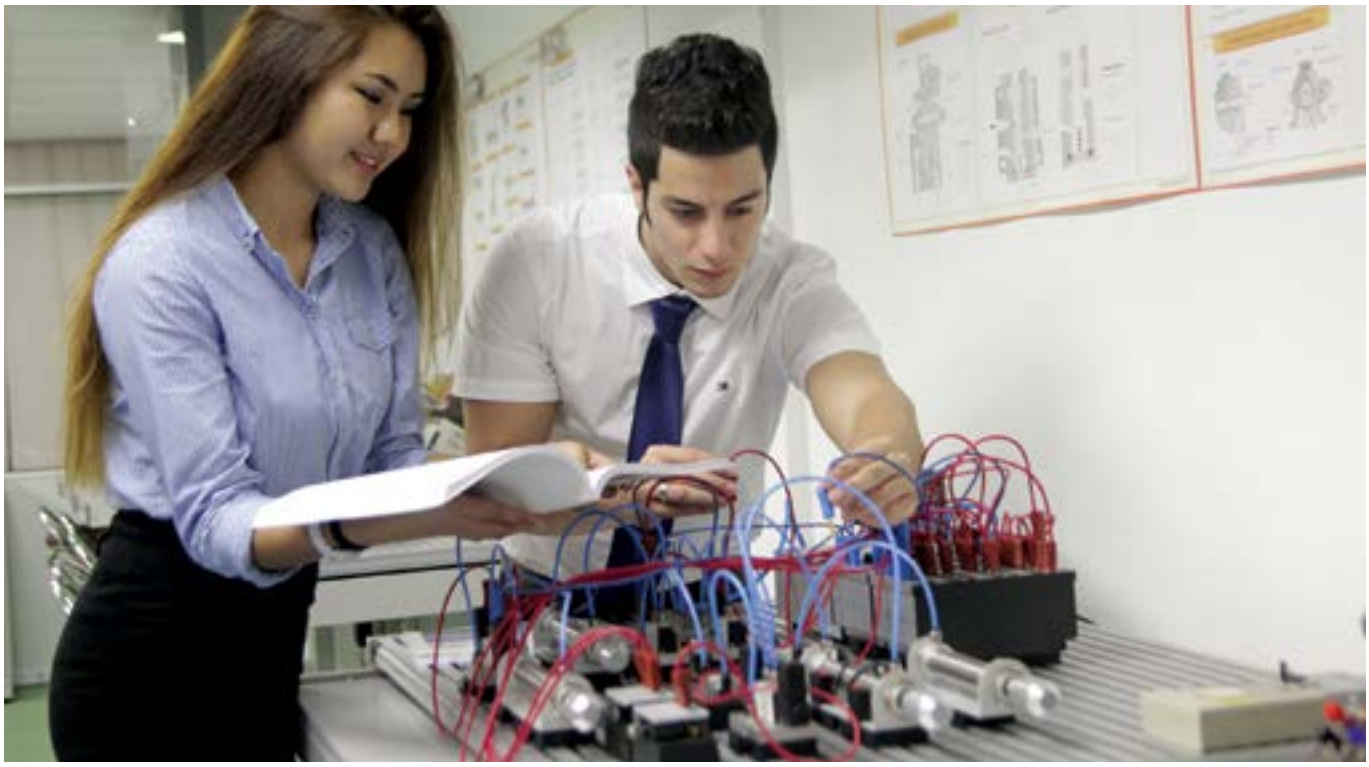
FINAL YEAR PROJECTS (FYP)

FYPBaNK – An online facility to support students' development of their final year project to meeting industry standards, to enhance employability and to assist student in ensuring projects are fit for purpose at the final year of study.

It is a facility web-based integrated system that facilitates the project management responsibilities carried out by the APU FYP students, supervisors, second markers, FYP administrators and project managers.

The companies who have and are contributing to FYPBaNK are INFOPRO SDN BHD, Bank Negara Museum and Art Gallery, DLoop Empeiria Sdn Bhd, Everly Group, GCA, Hilti, LOW Health Care Services, MAD Incubator, MIMOS Wireless Innovation Lab, Neruti Technology Sdn Bhd, REDtone, Signal Transmission (M) Sdn Bhd, Top Glove Sdn Bhd. Students are allowed to work on an industrial FYP proposals selected from the FYPBaNK. Our FYP students have successfully completed the industrial projects selected from the FYPBaNK. The end-product of each industrial project is being used by the real users.





STATE-OF-ART ENGINEERING EQUIPMENT ☆☆☆☆☆☆☆

WORLD-CLASS FACILITIES ☆☆☆☆☆☆☆☆☆☆

BEING A LEADER HAS NEVER STOPPED US
FROM TRYING HARDER

AWARDS & ACCOLADES

APIIT Education Group is the proud recipient of

PRIME MINISTER'S AWARD

and Export Excellence Award (Services) for Industry Excellence Awards - March 2011

The APIIT Education Group received the prestigious Prime Minister's Industry Excellence Award from the Prime Minister of Malaysia, Dato' Seri Mohd Najib Tun Razak. Only one organisation was selected to receive the Prime Minister's Industry Excellence Award from among nearly 30 other award recipients in 8 different categories.

The Industry Excellence Awards, organised by the Ministry of International Trade & Industry (MITI), recognises and rewards organisations for organisational excellence including competitiveness, innovativeness, market presence and export performance. Winning the Prime Minister's Industry Excellence Award is a significant milestone and an honour for APU as a leader in higher education. The award truly reflects our commitment and focus on quality, innovation, graduate employability and internationalisation.

MAKING HISTORY - AWARDS AND ACHIEVEMENTS


Awards received by the university and our students at local, regional and international competitions are a testimony to their knowledge, skills and professional attributes.

INSTITUTE OF ENGINEERS MALAYSIA (IEM) AWARD
2017 - Gold Award
2016 - Gold Award
2015 - Gold Award
2014 - Gold Award

NTERNATIONAL INVENTION, INNOVATION & TECHNOLOGY EXHIBITION (ITEX)
2017 - Silver Award for the Invention, Innovation and Technology category
2016 - Gold Award for the Invention, Innovation and Technology category
2016 - Silver Award for the Invention, Innovation and Technology category
2015 - Gold Award for the Invention, Innovation and Technology category
2015 - Bronze Award for the Invention, Innovation and Technology category
2014 - Gold Award for the Invention, Innovation and Technology category
2014 - Bronze Award for the Invention, Innovation and Technology category
2013 - Silver Medals for the Invention, Innovation and Technology category
2013 - Gold medals for the innovator category

INTERNATIONAL ENERGY INNOVATION COMPETITION (EIC) SINGAPORE
2017 - Merit Prize
2015 - 1st Runner-up
2015 - 4th Place

ABB INTERVASITY INNOVATION CHALLENGE
2016 - Grand Prize

ANGELHACK GLOBAL HACKATHON (MALAYSIA)
2016 - Grand Prize

GAMIFICATION HACKATHON
2016 - Champion
2016 - Gold Medal

BIG APP CHALLENGE
2016 - Champion
2016 - 1st Runner Up
2016 - 2nd Runner Up
2015 - Top 5 Finalist
2014 - 1st Runner-up

F-SECURE IT SECURITY CHALLENGE
2016 - Champion

I-HACK
2016 - Champion (Forensic Challenge)
2016 - Champion (Hack & Defence)

DIGITAL GAMES COMPETITION
2016 - Champion
2016 - 1st Runner Up

SEDEX (SCIENCE AND ENGINEERING DESIGN EXHIBITION CUM COMPETITION)
2016 - Gold Medal
2016 - Gold Medal
2016 - Bronze Medal

JOM HACK: SMART CITIES WITH LORA
2016 - Champion

ASIA PACIFIC ICT AWARDS (APICTA) MALAYSIA (MULTIMEDIA DEVELOPMENT CORPORATION)
2016 - Top Award for 'Best of Tertiary Student Project'
2013 - Top Award for 'Best of Tertiary Student Project'
2012 - Top Award for 'Best of Tertiary Student Project'
2011 - Winner of 'Special Jury Award' by the Prime Minister
2011 - Top Award for 'Best of Tertiary Student Project'
2011 - 2 Merit Awards for 'Best of Tertiary Student Project'
2010 - Top Award for 'Best of Tertiary Student Project'
2008 - Top Award for 'Best of e-Inclusion & e-Community'
2005 - Top Award for 'Best of Applications & Infrastructure Tools'
2004 - Top Award for 'Best of Education & Training'
2004 - Top Award for 'Best of Applications & Infrastructure Tools'
2004 - Merit Award for 'Best of Research & Development'
2003 - Merit Award for 'Best of Research & Development'
2002 - Merit Award for 'Best of Smart Learning Applications'
2001 - Merit Award for 'Best of Smart Learning Applications'
2000 - Merit Award for 'Best of Smart Learning Applications'
2000 - Top Award for 'Best of Student Projects'
1999 - Merit Award for 'Best of Student Projects'

INVENTION & INNOVATION COMPETITION FOR PRIVATE INSTITUTIONS OF HIGHER LEARNING (PERINTIS)
2016 - Silver Award
2016 - Bronze Award
2016 - Bronze Award
2016 - Bronze Award

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GREENTECH YOUTH INNOVATION CHALLENGE
2016 - 2nd Place

ATOS GLOBAL IT CHALLENGE
2016 - 1st Runner Up

MAKING HISTORY - AWARDS AND ACHIEVEMENTS

SCHNEIDER ELECTRIC'S 'GO GREEN IN THE CITY' COMPETITION - MALAYSIA

2016 - 1st Runner-up
2016 - 2nd Runner-up
2015 - 1st Runner-up
2014 - 1st Runner-up

INNOVATIVE PRACTICES IN EDUCATION & INDUSTRY EXHIBITION (I-PEINX)

2016 - Bronze Award

INTERNATIONAL ASIA PACIFIC ICT AWARDS (APICTA)

2016 - Merit Award for 'Best of Tertiary Student Project'
2012 - Merit Award for 'Best of Tertiary Student Project'
2011 - Merit Award for 'Best of Tertiary Student Project'
2010 - Merit Award for 'Best of Tertiary Student Project'
2004 - Merit Award for 'Best of Education & Training'
2004 - Merit Award for 'Best of Applications & Infrastructure Tools'

E-GENTING PROGRAMMING COMPETITION (R&D DIVISION, EGENTING)

2015 - Distinction Award for 'Software Program Design and Development'
2015 - Merit Award for 'Software Program Design and Development'
2014 - Merit Award for 'Software Program Design and Development'
2014 - Merit Award for 'Software Program Design and Development'
2006 - First Prize for 'Software Program Design and Development'
2004 - First Prize for 'Software Program Design and Development'
2003 - First Prize for 'Software Program Design and Development'
2002 - Merit Award for 'Software Program Design and Development'

UTP-HAX NATIONAL HACKING COMPETITION

2015 - 1st Runner-up
2014 - 1st Runner-up
2014 - 4th Place
2014 - 1st Runner-up

PATHFINDER ROBOT COMPETITION

2015 - 1st Runner-up
2015 - Creativity Award

INTERNATIONAL CONFERENCE ON INFORMATION, SYSTEM AND CONVERGENCE APPLICATIONS (ICISCA)

2015 - 1 Gold Award
2015 - 1 Bronze Award

MAKEWEEKEND ROBOTICS CHALLENGE 2013

2013 - Winner of Water Drone Competition
2013 - Winner of Awesomeness Challenge

THE BRANDLAUREATE – SMES BEST BRANDS AWARDS

2012 - Winner of Corporate Branding Award in Education

MALAYSIA CYBERSECURITY AWARDS (CYBERSECURITY MALAYSIA)

2013 - Award for 'Information Security Training Provider of the Year'
2012 - Award for 'Information Security Training Provider of the Year'
2009 - Award for 'Information Security Training Provider of the Year'

MICROSOFT IMAGINE CUP (MICROSOFT INC.)

2012 - Winner of Microsoft Imagine Cup (Malaysia)
2012 - Top Award for 'MDeC Special Innovation'
2011 - Winner of Microsoft Imagine Cup (Malaysia)
2011 - 1st Runner-up of Microsoft Imagine Cup (Malaysia)
2011 - 2nd Runner-up of Microsoft Imagine Cup (Malaysia)
2011 - Top Award for 'MDeC Special Innovation'
2011 - Top Award for 'Presentation Superstars'
2010 - Winner of Microsoft Imagine Cup (Malaysia)
2010 - Top 6 finalists at World Championship in Poland
2010 - Top Award for 'Best Presentation Team'
2010 - Top Award for 'Best Implementation of Multipoint'
2004 - 3rd Prize Award for 'System Government Elections Software'

MALAYSIAN GREENTECH AWARDS 2012 (MINISTRY OF ENERGY, GREEN TECHNOLOGY & WATER)

2012 - Silver Award for 'GreenTech University'

NAPEI AWARDS (NATIONAL ASSOCIATION OF PRIVATE EDUCATION INSTITUTIONS, MALAYSIA)

2011 - Award for Educational Excellence
2007 - Award for Educational Excellence
2004 - Award for Educational Excellence

MALAYSIA FROST & SULLIVAN TECHNOLOGY INNOVATION AWARD 2010 (WON BY APU GRADUATES)

2010 - Award for 'Emerging Human Computer Interface Technologies'

ITEX 2009 AWARDS - WON BY APU GRADUATES (INTERNATIONAL INVENTION, INNOVATION & TECHNOLOGY EXHIBITION)

2009 - Gold Award for 'Best Invention - SmartSurface'
2009 - Special Award for Corporate Invention

MSC MALAYSIA CREATIVE INDUSTRY AWARDS 2009 (GAMES CATEGORY - STUDENT)

2009 - Award for 'Best Game Design'
2009 - Award for 'Best Technical'

MINISTRY OF EDUCATION EXCELLENCE AWARDS (MINISTRY OF EDUCATION, MALAYSIA)

2003 - Award of Excellence in Research & Development
2003 - Award of Excellence for Development of Overseas Centres

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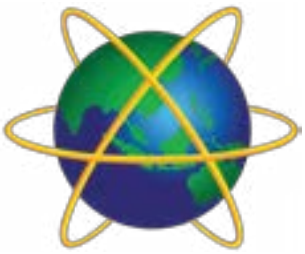
OF TECHNOLOGY & INNOVATION



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APIIT EDUCATION GROUP

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