











# APU EMERGES AS THE FIRST QS 5-STARS PLUS UNIVERSITY IN MALAYSIA

APU is the First Malaysian University to achieve an overall rating of Five Stars Plus in the latest QS Stars Rating awards that were presented at the QS Apple Conference on 1st Nov 2021. Five Stars Plus institution must achieve five stars across all categories in addition to achieving minimum highest benchmark score by QS STARS. APU is amongst 19 universities worldwide to achieve this honour.



# RANKED TOP 5 FOR INTERNATIONAL STUDENTS (QS WORLD UNIVERSITY RANKING ASIA 2023)

APU is Ranked Top 5 for International Students, Top 5 for Inbound Exchange, and is amongst the Top 30 Universities for International Faculty. APU is also Ranked amongst the Top 240 Universities in Asia.



**Online Learning** 



# APU AWARDED 5-STAR RATING FOR ONLINE LEARNING

APU awarded 5-Star Rating for Online Learning in the latest QS Stars Rating System - the highest possible rating in this category. It demonstrates APU's continued focus in providing interactive, student-centred, and flexible digital learning using innovative technologies that enable its students to learn seamlessly and meaningfully - anytime, anywhere.

#### **APU'S LIST OF FIRSTS:**

**1st** Local Institute awarded Multimedia Super Corridor Status

**1st** Institute awarded the MSC Research & Development Grant

1st Institute awarded MS ISO 9002 Quality Certification

**1st** Institute appointed Novell Education Academic Partner

1st Institute appointed Authorised Sun Education Centre

**1st** Institute appointed Microsoft Training Partner

**1st** Institute listed in Enterprise 50 Award Programme

1st Institute appointed University Alliance Partner by SAP

1st XR Studio - Mixed & Extended Reality Infrastructure in Asia

**1st** Integrated Cybersecurity Talent Zone in Malaysia



QS defines rating as "The system evaluates universities across a wide range of important performance indicators as set against pre- established international standards. By covering a broader range of criteria than any world ranking exercise, QS Stars™ shines a light on both the excellence and the diversity of the rated institution".

"The QS Stars university rating system audits and rates over 600 universities globally in a broader range of criteria than any world ranking exercise. Comprehensive audits are also independently carried out as part of the rating exercise. QS Stars<sup>TM</sup> shines a light on both the excellence and the diversity of the rated institution. Congratulations to Asia Pacific University (APU) for being the first-ever QS 5-Stars Plus rated institution in Malaysia and being 1 amongst 19 in the world."

Leigh Kamolins - Head of Evaluation, QS Intelligence Unit

#### **OUTSTANDING**

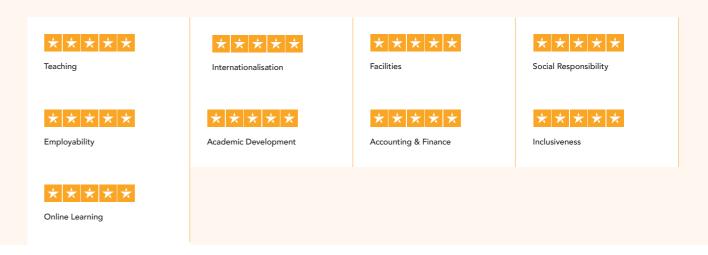




# Rated for Excellence

# Asia Pacific University of Technology & Innovation

The QS Intelligence Unit has, through rigorous and independent data collection and analysis of performance metrics as set out in the QS Stars™ methodology, rated Asia Pacific University of Technology & Innovation as a Five Stars Plus institution.





The QS Stars™ rating system is operated by the QS Intelligence Unit, the independent compiler of the QS World University Rankings® since 2004. The system evaluates universities across a wide range of important performance indicators as set against pre-established international standards. By covering a broader range of criteria than any world ranking exercise, QS Stars shines a light on both the excellence and the diversity of the rated institution.

Leigh Kamolins, Head of Evaluation

# Inspiring



#### **COMPUTING, TECHNOLOGY MULTIMEDIA & GAMES DEVELOPMENT PROGRAMMES**

#### **DEGREE PROGRAMMES**

- BSc (Hons) in Information Technology
- BSc (Hons) in Information Technology with a specialism in:
- Information System Security
- Cloud Engineering
- Mobile Technology
- Internet of Things (IoT)
- Digital Transformation
- Financial Technology (FinTech)
- Business Information Systems
- · BSc (Hons) in Software Engineering
- BSc (Hons) in Computer Science
- BSc (Hons) in Computer Science with a specialism in:
- Data Analytics
- Digital Forensics
- BSc (Hons) in Computer Science (Cyber Security)
- · Bachelor of Computer Science (Hons) (Intelligent Systems)
- BSc (Hons) in Multimedia Technology
- BSc (Hons) in Multimedia Technology with a specialism in:
- · BSc (Hons) in Computer Games Development

#### APIIT RATED 6-STARS (OUTSTANDING) RATING



APIIT was announced as one of the Top Private Colleges in Malaysia to attain 6-STAR (OUTSTANDING Rating) under the latest Ratings by the Ministry of Higher Education (MOHE) on 18th Dec 2020. MYQUEST is a quality evaluation system assessed by MOHE to evaluate the quality of programmes offered by Malaysian private colleges.

#### APU AWARDED 5-STAR (EXCELLENT) RATING



APU was announced as among the Highest Rated Emerging Universities in Malaysia, being rated 5-STAR (EXCELLENT Rating) under the latest SETARA Ratings by the Ministry of Higher Education (MOHE). APU has maintained this Excellent Rating consecutively in the SETARA 2011, 2013, 2017 as well as in the latest ratings announced on 18th Dec 2020. The SETARA ratings system measures the performance of teaching and learning in universities in Malaysia.

#### APU IS A PREMIER DIGITAL TECH INSTITUTION -MALAYSIA DIGITAL ECONOMY CORPORATION



APU was among the first institute in Malaysia awarded Premier Digital Tech Institution status by the Malaysia Digital Economy Corporation (MDEC) and Ministry of Higher Education (MOHE). APU is recognised for its commitment to offer top-notch digital technology courses and ensuring our highly-skilled graduates continue to flourish and fill future digital job demands locally and globally.

# Experience

APU's iconic campus

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.



#### An Ultra-modern Campus Built Today for the Needs of Tomorrow

Asia Pacific University of Technology & Innovation (APU)'s 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 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.

#### **Malaysia's Award Winning University**

- 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 iconic 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.



MALAYSIA'S UNIVERSITY

Engineering Degrees Accredited under WASHINGTON ACCORD

50,000

FIRST IN MALAYSIA 5-STARS PLUS

\* Student Barometer Wave 2019 (International Students) 'Studying with people from other cultures'.



APU's graduate employability record has consistently been between 95% to 100%; this is a significant symbol of our success and pride in nurturing professionals for global careers.

#### The APU Career Centre connects

#### **Outstanding Support**

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









#### **Industry Ready Graduates**

The APU Career Centre connects and engages with over 12,000 Employers to ensure that our graduates are highly employable in both local and international corporations, as it closely supports APU students in both internship and career placement activities.

#### 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.

Employers are demanding that graduates not just have qualifications, but also have the experience and ability to contribute to the workplace. To meet these demands, APU develops programmes and partnerships with academic and industry partners, with a heavy focus on applied learning. This helps to ensure that the skills and knowledge taught at APU are up-to-date and in high demand.

/ 10 / COMPUTING, TECHNOLOGY, MULTIMEDIA

& GAMES DEVELOPMENT

COMPUTING, TECHNOLOGY, MULTIMEDIA

COMPUTING, TECHNOLOGY, MULTIMEDIA

A GAMES DEVELOPMENT

# Rated Mo.1

in Asia and Malaysia for Multicultural Learning Experience\*







#### **A Hub of Cultural Diversity**

With more than 13,000 students from over 130 countries, we ensure that you will gain memorable experiences alongside the diversifed and colourful cultural environment. We have students from Asia, Central Asia, Middle East, Africa, Europe, Latin America and Oceania. Our International Students Support Centre helps you with the procedure to apply for your Student Pass before coming here. Upon arrival in Kuala Lumpur, you will be greeted with warmth by our friendly staff, who will pick you up and bring you to our campus.

#### **Student Welcome Team**

The Student Welcome Team was established by Asia Pacific University of Technology & Innovation (APU) to improve the arrival experience of international students in Malaysia. "Warm Welcome, Warm Hello, Warm What's up" is the theme of this ASK ME Team.













#### **A Truly International Community**

Just like the beautiful country in which we are located, APU is a rich blend of traditional and modern styles. We have developed a singular character to embrace those things that set us apart. We pride ourselves on the quality of both our teaching and research as well as having a unique living and learning environment

#### Student Life @ APU

Being a university student can be one of your most exciting expeditions. Higher education opens up a world of new ideas, intellectual growth, new adventures and the building of lifelong friendships. Here at APU, we support you to take the time to explore not only the educational experiences but also the wide range of social, sporting and cultural activities on campus.

Student Barometer Wave 2019 (International Students), 'Studving with people from other cultures'.



APU provides access to world-class resources across a wide range of disciplines. This translates into industry-ready skills and a competitive edge for graduates.





#### **An Integrated Community**

The campus aims to establish a community aspect for the university - where integration is the key. Walkways, classrooms, communal spaces and discussion areas promote connectivity and cultivates exchange of ideas among students from different disciplines and academics, to implement cooperative learning concepts in line with the Industrial Revolution 4.0.









#### **Cutting-Edge Technologies**

The Campus blends technology, integration, innovation and creativity under one roof. It provides not just a learning environment, but also a lively community spot for our students to formulate new ideas, gain intellectual growth and discover new adventures. It is not only a university campus, but also the nurturing ground for world-changing global ideas. All spaces are carefully designed to create an unforgettable learning and lifestyle experience that lasts for a lifetime, while enabling professional learning and cultivating global mindsets. APU, as Malaysia's leading technological university, is the incubator for self-starting and innovative APU graduates. Our educational technology environment supports the development of graduates of this calibre, in which well-equipped computing and engineering laboratories with advanced software, hardware and technologies place students at the forefront of technological excellence.

#### Social Interaction Platforms

Fitness Sweatzone, student lounges, sports facilities and breakout rooms provide spaces for relaxation and socialisation throughout the day. They are carefully designed to create an unforgettable learning and lifestyle experience that lasts for a lifetime, especially for students who are studying away from home

# Our Partner in Quality

De Montfort University (DMU), UK





De Montfort University Leicester (DMU) is a dynamic, 21st-century UK university with a global outlook based in the city of Leicester which is a great place to be a student.

#### Find your new home at DMU

At DMU, our supportive and nurturing community will empower you to realise your dreams. Our courses are carefully designed and taught by expert academics to help you gain the skills needed to enter today's competitive jobs market and succeed in your career.

The university is organised into four faculties; Arts, Design and Humanities, Business and Law, Health and Life Sciences and Computing, Engineering and Media.

Our award-winning careers and employability service, DMU Works provides guaranteed work experience opportunities, including placements, internships and career mentoring.







- DMU has over 150 years of history in providing higher education to students from around the globe.
- Leicester offer everything students could need and it has been named the fourth most vibrant city in the UK (Top Cities Vibrancy Report, 2022), as well as the best city in the East Midlands region to live and work (Good Growth for Cities Index. 2022).
- DMU has been awarded a second term as a United Nations Academic Impact (UNAI) global hub for Sustainable Development Goals (SDGs), aimed at transforming lives around the world.
- Each year, international students from more than 130 countries choose to study at DMU.



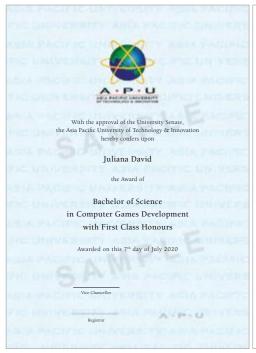


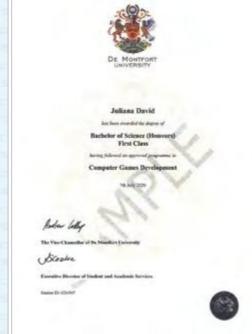
# Double your Advantage





APU-DMU **Dual Degree Programme** 











- APU's partnership with DMU enables students to be awarded Dual Awards - separate degree certificates from each institution - and enhances not just teaching and learning experiences, but also career
- Upon graduation, students will receive 2 Degree Certificates & Transcripts: 1 from APU, Malaysia and 1 from DMU, UK.
- Both degrees are recognised locally & internationally.
- The APU-DMU Dual Degree Programmes are offered under an approved collaboration in accordance with the QAA UK Quality Code for Higher Education for the Assurance of Academic Quality and Standards in Higher Education as published by the United Kingdom Quality Assurance Agency (QAA).



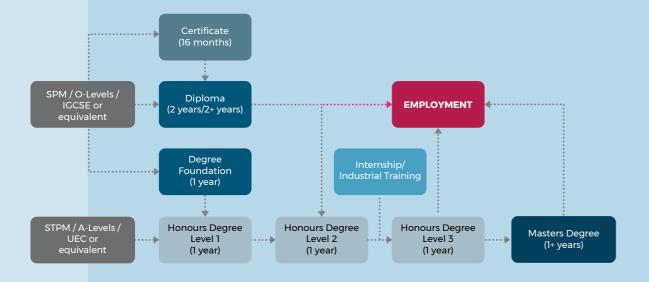








#### YOUR STUDY PROGRESSION



#### **ADMISSION REQUIREMENTS**

#### **BACHELORS (HONS) DEGREE PROGRAMMES**

Entry Qualification	Computer Science / Software Engineering / Cyber Security / Intelligent Systems	Information Technology	Multimedia Technology / Computer Games Development
	eyber occurry / intelligent systems		compater carnes bevelopment
STPM	2 Passes in STPM in Science stream with minimum Grade C (GPA 2.0) in Mathematics and one Science or ICT Subject.     OR     2 Passes in STPM with minimum Grade C (GP 2.0) in any subject with a credit in Additional Mathematics at SPM.     OR     2 Passes in STPM with minimum Grade C (GP 2.0) in any subject with a credit in Mathematics and any one Science or ICT subjects at SPM. Candidates need to do a Pre-Requisite module in Further Mathematics or equivalent in the first semester of Degree Programme.	2 Passes in STPM with minimum Grade C (GP 2.0) in any subject with a Credit in Mathematics at SPM.	2 Passes in STPM with minimum Grade C (GP 2.0) in any subject with a Pass in Mathematics at SPM.      Pass an interview or a portfolio review.      Strong Mathematics would be an added advantage.
A-LEVEL  Overseas qualification that are equivalent to 12th Grade/ A-Level/ HSC are accepted.	2 Passes in A-Level in Science stream with a Pass in Mathematics and one Science or ICT subject.  OR 2 Passes in A-Level with a Credit in Additional Mathematics at SPM/ O-Level/ IGCSE or equivalent OR 2 Passes in A-Level with a Credit in Mathematics and Science or ICT subjects at SPM/ O-Level/ IGCSE or equivalent. Candidates need to do a Pre-Requisite module in Further Mathematics or equivalent in the first semester of Degree Programme.	2 Passes in A-Level and with a Credit in Mathematics at SPM/ O-Level/IGCSE or equivalent.	2 Passes in A-Level and with a Pass in Mathematics at SPM/ O-Level/ IGCSE or equivalent.      Pass an interview or a portfolio review.  *Strong Mathematics would be an added advantage.
UEC	S Grade B Passes in UEC in any subject including Mathematics and one Science or ICT subject.  S Grade B Passes in UEC in any subject including Additional Mathematics.  Grade B Passes in UEC in any subjects with Credit in Mathematics and Science or ICT Subject at SPM or equivalent. Candidates need to do a Pre-Requisite module in Further Mathematics or equivalent in the first semester of Degree Programme.	5 Grade B Passes in UEC in any subjects including Mathematics.	S Crade B Passes in UEC in any subjects including a Pass in Mathematics. Pass an interview or a portfolio review. Strong Mathematics would be an added advantage.
FOUNDATION/ MATRICULATION	A pass in Matriculation or Foundation studies with minimum CGPA of 2.0 with a Credit in Additional Mathematics at SPM/IGCSE/O-Level or its equivalent.  Note: The requirement for the Additional Mathematics can be exempted if the Matriculation or Foundation offers Mathematics module which is equivalent or higher requirement than the Additional Mathematics at SPM level.  OR  A pass in Matriculation or Foundation studies with minimum CGPA of 2.0 and a Credit in Mathematics and Science or ICT subject at SPM/IGCSE/O-Level or its equivalent. Candidates need to do a Pre-Requisite module in Further Mathematics or equivalent in the first semester of Degree Programme.	A pass in Matriculation or Foundation studies with minimum CGPA of 2.0 with a Credit in Mathematics at SPM/ IGCSE/ O-Level or its equivalent.	A pass in Matriculation or Foundation studies with minimum CGPA of 2.0 with a Pass in Mathematics at SPM/IGCSE/O-Level or its equivalent.  Pass an interview or a portfolio review.
ICT RELATED DIPLOMAS	Diploma with a minimum CGPA of 2.50.  Note: Student with CGPA above 2.0 and below 2.5 may be accepted using rigorous assessment conducted by APU and subject to the approval of the Academic Board.	Diploma with a minimum CCPA of 2.50.  Note: Student with CCPA above 2.0 and below 2.5 may be accepted using rigorous assessment conducted by APU and subject to the approval of the Academic Board.	Diploma with a minimum CGPA of 2.0 and a Pass in Mathematics at SPM/IGCSE/O-Level or its equivalent.  Pass an interview or a portfolio review.

Note: Students who do not have a Credit in Additional Mathematics in SPM/ O-Level/ICCSE but have an acceptable achievement in Mathematics related subjects during the Foundation which may be equivalent to SPM/O-Level/ICCSE Additional Mathematics, can be accepted into Degree Programmes. Students can be given preferential entry for ICT related subject in SPM/ O-Level/ ICCSE.

Any qualification that APU accepts as equivalent to the above.

#### **ENGLISH REQUIREMENTS** (only applicable to International Students)

Programmes	Requirements			
Foundation and Diploma Programmes	• IELTS : 4.0 • TOEFL IBT : 30-31 • P	rearson (PTE) : 36 • MUET : Band 3		
Bachelor (Hons) Degree Programmes	· IELTS: 5.0 · TOEFL IBT: 40 · P	rearson (PTE) : 47 • MUET : Band 3.5		

Please note that under Ministry of Higher Education regulations, only students who have achieved the minimum requirement in the English Language proficiency assessment as indicated above will be allowed to continue their studies in the main study programme. Students who do not have the required English Language achievement may apply for a student visa on conditional basis and are allowed to enrol in an English Language Certification programme at APU upon arrival in Malaysia and, subsequently, appear for the IELTS/TOEFL/PTE/MUET assessment.

Students who are unable to obtain the required level of English Competency during the maximum 12 months' period, will not be allowed to pursue their studies in the main programme and will have to return to their home country.

Students from English speaking countries and those with qualifications taught in English (IGCSE, A-Levels, IB, American High School Diploma etc) are exempted from English requirements. Applications for exemption must be accompanied by supporting documents.

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

/ 20 / PATHWAYS & ADMISSION
ADMISSION REQUIREMENTS / 21 /

#### **MODULES YOU STUDY**

The modules studied help 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, Actuarial Studies, Psychology, Business & Management, Computing & Technology, Engineering, Industrial Design, Animation and Visual Effects.

#### **ENRICHING EXPERIENCES - MORE THAN JUST A FOUNDATION**

The APU Foundation Programme lays the pathway towards professional tertiary education. It is a vital transformation point for students; soft skills, general knowledge and preparatory subject fundamentals excellence in a student's education performance, as well as careerreadiness as they move on as global professionals eventually. This is achieved through 4 key areas:

- Leadership & Teamwork
- Problem-Solving Skills
- Social Skills & Responsibilities
- Practical Skills

The unique support system at APU Foundation Programme consist of helpful academic mentors who are committed in ensuring academic achievements, providing pastoral care, advising, mentoring, motivating to ensure that they undergo a smooth transition from secondary education to tertiary learning.

SEMESTER 1	COMMON SEMESTER 1  • English for Academic Purposes  • Communication Skills  • Personal Development & Study Methods  • Essentials of Web Applications  • Mathematics					
ROUTES	BUSINESS, FINANCE & PSYCHOLOGY	COMPUTING & TECHNOLOGY	ENGINEERING	DESIGN		
SEMESTER 2	Introduction to Business     Fundamental of Finance     Global Business Trends     Public Speaking in English	Introduction to Business     Introduction to Computer Architecture & Networking     Introduction to Visual & Interactive Programming     Public Speaking in English	Engineering Science     Engineering Mathematics     Introduction to Visual & Interactive Programming     Public Speaking in English	<ul> <li>Fundamentals of Drawing</li> <li>Life Drawing</li> <li>Design Studies</li> <li>Public Speaking in English</li> <li>Major Project 1</li> </ul>		
SEMESTER 3	Academic Research Skills Economics for Business Perspectives in Technology / Further Mathematics** Co-Curricular Choose one of the following modules: Principles of Accounts Discovering Media in the Digital Age Psychology & Behavioral Science	Academic Research Skills     Further Mathematics     Introduction to Multimedia Applications     Co-Curricular     Choose one of the following modules:     Perspectives in Technology     Discovering Media in the Digital Age     Psychology & Behavioral Science	Academic Research Skills     Mechanical Science / Engineering     Chemistry     Perspectives in Technology     Electrical and Electronic Principles     Co-Curricular	Academic Research Skills     History of Design and Media     Introduction to Digital Photography     Major Project 2     Co-Curricular Studies		
You may then proceed to Level 1 of a Degree of your choice in the following pathways						
PRIMARY PATHWAYS	Business & Management     Accounting, Finance, Banking & Actuarial Studies     Media, Communication & Psychology	- Computing & Technology - Multimedia & Games Development	- Engineering	- Industrial Design, Visual Effects, Animation & Digital Advertising		
SECONDARY PATHWAYS Students may also choose the following:	- Computing & Technology - Multimedia & Games Development - Industrial Design, Visual Effects, Animation & Digital Advertising - International Relations	Business & Management     Accounting, Finance, Banking & Actuarial Studies     Industrial Design, Visual Effects, Animation & Digital Advertising     International Relations     Media, Communication & Psychology	- Computing & Technology - Multimedia & Games Development - Accounting, Finance, Banking & Actuarial Studies - Business & Management - Industrial Design, Visual Effects, Animation & Digital Advertising - International Relations - Media, Communication & Psychology	Computing & Technology     Multimedia & Games Development     Accounting, Finance, Banking & Actuarial Studies     Business & Management     International Relations     Media, Communication & Psychology		

#### 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 / IGCSE is required in:



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

#### **Computing & Technology**

- · BSc (Hons) in Information Technology · BSc (Hons) in Information Technology
- with a specialism in
- Information System Security
- Cloud Engineering Mobile Technology
- Internet of Things (IoT) - Digital Transformation
- Financial Technology (FinTech)
- Business Information Systems BSc (Hons) in Computer Science\*
- · BSc (Hons) in Computer Science with a specialism in
- Data Analytics\*
- Digital Forensics\*
- BSc (Hons) in Computer Science (Cyber Security)\*

BSc (Hons) in Computer Games Development

- BSc (Hons) in Software Engineering\*
- Bachelor of Computer Science (Hons) (Intelligent Systems)

**Multimedia & Games Development** 

· BSc (Hons) in Multimedia Technology

BSc (Hons) in Multimedia Technology

with a specialism in VR/AR

#### Accounting, Banking, Finance & Actuarial

- · Bachelor of Accounting and Finance (Honours)
- Bachelor of Accounting and Finance (Honours)
- with a specialism in
- Forensic Accounting
- Forex and Investments
- Accounting Technology
- Bachelor in Banking and Finance (Hons) Bachelor in Banking and Finance (Hons)
- with a specialism in

A Pass in Mathematics at SPM / O-Level / IGCSE is required

(Strong Mathematics would be an added advantage

- Investment Analytics
- Financial Technology
- Bachelor of Science (Honours) in Actuarial Studies
- Bachelor of Science (Honours) in Actuarial Studies with a specialism in
- Data Analytics

for these programmes

- Financial Technology

#### **Mathematics**

**Mathematics** 



· Bachelor of Computer Engineering with Honours

· Bachelor of Petroleum Engineering with Honours

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

Physics OR Chemistry OR Technical Science

is required for the following programmes:

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

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 / IGCSE

· Bachelor of Engineering in Electrical & Electronic Engineering with Honours

• Bachelor of Engineering in Mechatronic Engineering with Honours

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

#### Psychology

· Bachelor of Science (Honours) in Psychology

Leading from APU Foundation to your Choice of Degree Studies:

#### Business, Management, Marketing, Digital Marketing & Tourism

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

#### Media and International Relations

- · Bachelor of Arts (Honours) in Media and Communication Studies
- · BA (Hons) in International Relations

#### Industrial Design, Animation & Visual Effects

- Bachelor of Arts (Honours) in Industrial Design
- Bachelor of Arts (Honours) in Visual Effects
- Bachelor of Arts (Honours) in Animation
- Bachelor of Arts (Honours) in Digital Advertising



- Students who choose to progress to Computer Science. Software Engineering, Data Analytics, Cyber Security, Digital Forensics, and Intelligent Systems programmes will be required to undertake Foundation Pathways from the Computing & Technology route or Engineering route if the student does not have a credit in Additional Mathematics at SPM/O-Level/ICCSE or equivalent
- \*\* Further Mathematics module is Compulsory for students who choose to progress to Bachelor of Science (Honours) in Actuarial Studies.

Students who have completed Foundation from other routes apart from the above are required to do a Pre-Requisite module in Further Mathematics or equivalent in the first semester of the Degree Programme. provided they also still have Credit in Maths and Science or ICT subject at SPM / O-Level / ICCSE or equivalent

## FOUNDATION IN COMPUTING (ODL)

- 100% ONLINE Open & Distance Learning (ODL)





This APU Foundation in Computing (ODL) is specifically designed to provide: • Theories and concepts to equip students to be competent and knowledgeable in their field of study • The ability to apply digital and numeracy skills to process information and interpret data in their field of study Students with positive values and the ability to effectively communicate and function as a good team player. • Students the ability to identify self-improvement opportunities and develop

#### **SEMESTER 1**

Semester 1 offers modules where students are introduced to the main skills areas of Language, Communication, Personal Skills, Numerical and IT Skills. Students are able to develop their soft skills that are essential for oral and written presentations of ideas and concepts as well as other skills which are essential for employability and lifelong learning.

#### Modules

- English for Academic Purposes
- Communication Skills
- · Personal Development and Study
- Essentials of Web Applications
- Mathematics

#### **SEMESTER 2**

The second semester exposes students further into the concepts of technology and principles of programming. With this knowledge, students are able to design and implement software solutions irrespective of platforms, language or application domain. Basic concepts of organization and its role will also be introduced, and their interpersonal skills will be further developed through public

#### Modules

- Introduction to Business
- Introduction to Computer Architecture and Networking
- Introduction to Visual and Interactive Programming
- Public Speaking in English

#### **SEMESTER 3**

The final semester provides students with fundamental knowledge and skills in areas of multimedia and technology which helps students to make an informed decision on their pathway in the area of study.

Their mathematical knowledge and skills will be extended in this semester to prepare for degree study. Students will also have an opportunity to explore academic research, equipped with the necessary skills and techniques.

#### Modules

- Academic Research Skills
- Perspectives in Technology
- Introduction to Multimedia Applications
- Further Mathematics



- The Foundation in Computing with ODL (Open & Distance Learning) allows students to learn from anywhere - this power of freedom is an ideal option for students who wish to have the freedom of choice in their learning
- The delivery will consist of combination of online classes, meetings and consultation through Microsoft Teams, coupled with Asynchronous learning on APU's Learning Management System.

#### **Further Studies**

Upon successful completion of this programme, you will be eligible to progress into any of the following degree pathways offered at APU. Students will also have the option to opt-in for the APU-DMU Dual Degree Scheme.

- BSc (Hons) in Information Technology with a specialism in:
- Information System Security
- Mobile Technology
- Internet of Things (IoT)
- Digital Transformation
- Financial Technology (FinTech)
- Business Information Systems
- BSc (Hons) in Software Engineering
- BSc (Hons) in Computer Science (Cyber Security)
- BSc (Hons) in Computer Science
- Intelligent Systems
- specialism in Data Analytics

- Business, Management, Marketing &
- Accounting, Finance, Banking &

- Media, Communication & Psychology

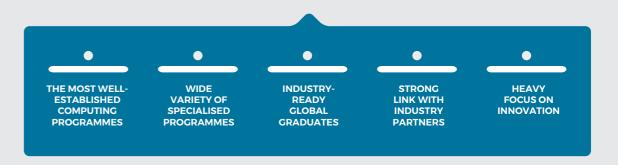
- BSc (Hons) in Information Technology
- Cloud Engineering

- Bachelor of Computer Science (Hons)
- BSc (Hons) in Computer Science with a
- BSc (Hons) in Computer Science with a specialism in Digital Forensics

#### Secondary pathways:

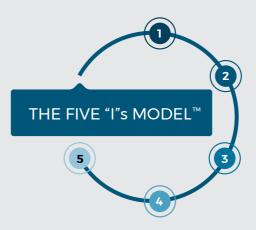
- **Actuarial Studies**
- Industrial Design, Visual Effects, **Animation & Digital Advertising**
- International Relations

# Computing, Technology Games Development



#### THE AIMS OF THE APU COMPUTING. TECHNOLOGY. MULTIMEDIA & **GAMES DEVELOPMENT PROGRAMMES ARE TO:**

- · Facilitate your progression, both academic and practical, by developing knowledge, key skills and the capacity for independent and lifelong learning
- · Develop your skills in imaginative problem-solving and decision-making
- · Help you develop a Personal Development Portfolio to support your career aspirations
- · Provide you with a stimulating, interactive and accessible course of study that gives you a sound grasp of Information Technology knowledge & analysis and contemporary issues which you can develop and apply in your future employment
- Develop your imagination and innovative abilities and help you show initiative and creativity in your work
- · Develop your intelligence, ingenuity, inventiveness and independence as well as your communication skills



#### 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

#### 3: INFORMATION

through developing your knowledge and also your abilities to communicate effectively

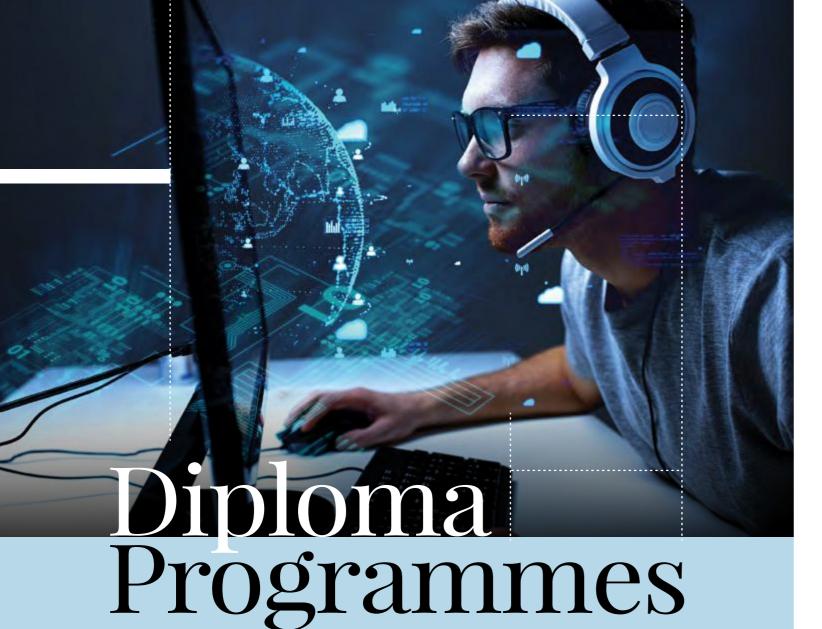
#### 4: INTERACTIVITY

through the use of group work to develop your teamwork skills and through the use of technology to achieve interactivity of devices and people  $\frac{1}{2} \left( \frac{1}{2} \right) = \frac{1}{2} \left( \frac{1}{2} \right) \left( \frac{1}$ 

#### 5: IMAGINATION

in relation to new products, ideas, applications and solutions

<sup>\*</sup> Please take note that some degree programmes require students to complete the Foundation in Computing (ODL) with CGPA of 2.5 and above



Our Diploma Programmes are designed to prepare those with SPM, O-Levels, IGCSE or similar qualifications with academic aspect as well as the vocational aspects of various areas of studies. The programmes are designed to:

- · Prepare students for careers in the respective environment
- Provide students with academic and professional skills to develop solutions requiring a holistic outlook in various areas of studies
- Provide students with critical, independent and cooperative learning skills so as to facilitate their response to continuous future international change
- $\cdot$   $\:$  Develop intellectual skills, communications ability and team working capability
- Provide students with opportunities for progression into the Degree Programmes of their choice\*

#### **OUR DIPLOMA PROGRAMMES:**

- Diploma in Information & Communication Technology
- Diploma in Information & Communication Technology with a specialism in Software Engineering
- Diploma in Information & Communication Technology with a specialism in Data Informatics
- Diploma in Information & Communication Technology with a specialism in Interactive Technology
- Diploma in Business Information Technology

## PATHWAYS AFTER DIPLOMA TO COMPUTING, TECHNOLOGY, MULTIMEDIA & GAMES DEVELOPMENT DEGREES

Upon successful completion of the Diploma Programmes with a minimum CGPA of 2.5, you will be eligible to progress into Year 2 of any of the following degree programmes offered at APU.

#### Diploma in Information & Communication Technology

Students who undertake this programme will be eligible to progress into Year 2 of:

- · BSc (Hons) in Information Technology
- · BSc (Hons) in Information Technology with a specialism in:
  - Information System Security Cloud Engineering
  - Financial Technology (FinTech) Mobile Technology
- Business Information Systems Digital Transformation - Internet of Things (IoT)
- · BSc (Hons) in Software Engineering
- · BSc (Hons) in Computer Science (Cyber Security)
- BSc (Hons) in Computer Science\*
- BSc (Hons) in Computer Science with a specialism in Data Analytics
- BSc (Hons) in Computer Science with a specialism in Digital Forensics
- Bachelor of Computer Science (Hons) (Intelligent Systems)

#### Diploma in Information & Communication Technology with a specialism in Software Engineering

Students who undertake this programme will be eligible to progress into Year 2 of:

- · BSc (Hons) in Information Technology
- · BSc (Hons) in Information Technology with a specialism in:
- Information System Security Cloud Engineering
- Financial Technology (FinTech)
   Business Information Systems
   Digital Transformation
- Internet of Things (IoT)\*
- · BSc (Hons) in Software Engineering
- · BSc (Hons) in Computer Science (Cyber Security)
- · BSc (Hons) in Computer Science
- BSc (Hons) in Computer Science with a specialism in Data Analytics
- BSc (Hons) in Computer Science with a specialism in Digital Forensics
- · Bachelor of Computer Science (Hons) (Intelligent Systems)
- \* Bridging module(s) needed before progress into Year 2.

#### Diploma in Information & Communication Technology with a specialism in Data Informatics

Students who undertake this programme will be eligible to progress into Year 2 of:

- · BSc (Hons) in Information Technology
- · BSc (Hons) in Information Technology with a specialism in:
- Information System Security Cloud Engineering - Financial Technology (FinTech) - Mobile Technology
- Business Information Systems Digital Transformation
- Internet of Things (IoT)\*
- · BSc (Hons) in Software Engineering
- · BSc (Hons) in Computer Science (Cyber Security)
- BSc (Hons) in Computer Science
- BSc (Hons) in Computer Science with a specialism in Data Analytics
- BSc (Hons) in Computer Science with a specialism in Digital Forensics
- Bachelor of Computer Science (Hons) (Intelligent Systems)

#### Diploma in Information & Communication Technology with a specialism in Interactive Technology

Students who undertake this programme will be eligible to progress into Year 2 of:

- · BSc (Hons) in Computer Games Development
- · BSc (Hons) in Multimedia Technology
- BSc (Hons) in Multimedia Technology with a specialism in VR/AR
- · BSc (Hons) in Information Technology
- · BSc (Hons) in Information Technology with a specialism in:
- Information System Security\* Cloud Engineering
- Financial Technology (FinTech) Mobile Technology\*
- Business Information Systems Digital Transformation
- Internet of Things (IoT)\*
- BSc (Hons) in Software Engineering
- BSc (Hons) in Computer Science (Cyber Security)\*
- · BSc (Hons) in Computer Science
- BSc (Hons) in Computer Science with a specialism in Data Analytics\*
- BSc (Hons) in Computer Science with a specialism in Digital Forensics\*
- Bachelor of Computer Science (Hons) (Intelligent Systems)\*

#### Diploma in Business Information Technology

Students who undertake this programme will be eligible to progress into Year 2 of:

- · BA (Hons) in Business Management
- $\,\cdot\,\,$  BA (Hons) in Business Management with a specialism in:
- E-Business
- Digital Leadership

- · BA (Hons) in International Business Management
- · BA (Hons) in Marketing Management
- BA (Hons) in Marketing Management with a specialism in Digital Marketing
- BA (Hons) Human Resource Management
- BA (Hons) in Tourism Management\*

Note: Student with CGPA above 2.0 and below 2.5 may be accepted using rigorous assessment conducted by APU and subject to the approval of the Academic Board.

For the full listing of our Diploma Programmes, please refer to the Pre-University programme brochure.

/ 26 / DIPLOMA PROGRAMMES / 27 /

<sup>\*</sup> Pathways after Diploma Programme vary accordingly.

<sup>\*</sup> Bridging module(s) needed before progress into Year 2.

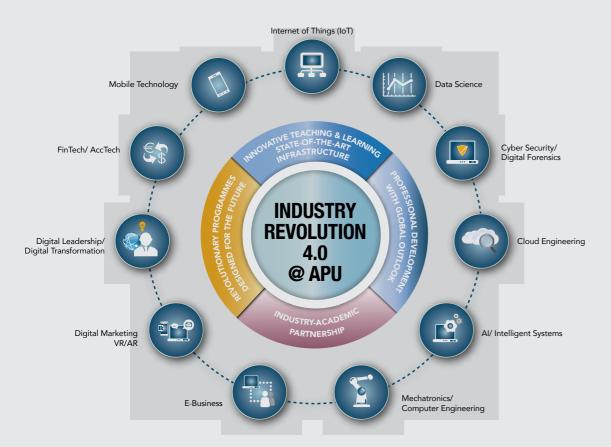
# Embracing the wave of

# Industry Revolution

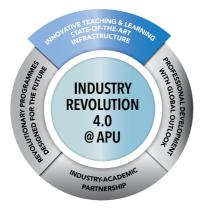
FUTURE-PROOFING THE WORKFORCE OF THE FUTURE

New waves of technological disruptions and the emergence of advanced technologies have resulted in the Fourth Industrial Revolution (Industry 4.0), where Robotics, Artificial Intelligence (AI), Machine Learning, Virtual Reality (VR), Cloud Engineering, Internet of Things (IoT), Data Science are going to transform the way businesses operate - routine, mundane jobs will be replaced and there is a growing need to develop "smarter" talents that can ride along the wave of digital transformation.

At APU, we developed our own IR 4.0 strategy to prepare our students to join the workforce of the future. We nurture the world's future innovators and uphold our Vision as a University of Technology and Innovation.

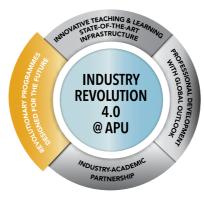


#### **INDUSTRY REVOLUTION 4.0 @ APU**



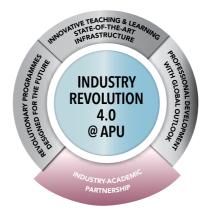
#### **INNOVATIVE TEACHING & LEARNING** STATE-OF-THE-ART INFRASTRUCTURE

In the era of Industry 4.0, learning is no longer confined within the classroom. Our iconic campus houses world-class facilities that aim to nurture Creativity & Innovation. Industrial-grade infrastructure are built to provide real-life exposure to our students, cultivating their practical skills aside from academic knowledge. We have also redesigned our teaching & learning methods to stimulate critical thinking, decision making, teamwork and build confidence.



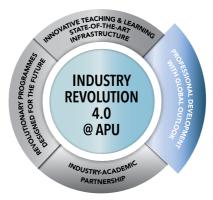
#### REVOLUTIONARY PROGRAMMES DESIGNED FOR THE FUTURE

New technologies mean new expertise, while this translates into a new need of talents in new areas. We address the needs of the industry, to help to build talents who can manage, operate and innovate under the new IR 4.0 environment, by carefully designing new programmes of the future. Our programmes are first-of-its-kind, such as in Cyber Security, Data Science, Internet of Things (IoT), Intelligent Systems, Digital Leadership, Digital Transformation, VR/AR, Financial Technology (FinTech), Accounting Technology (AccTech), Digital Marketing, E-Business, Mechatronics, Computer Engineering, Cloud



#### **INDUSTRY-ACADEMIC PARTNERSHIP**

Industry 4.0 is all about the "industry". Our close relationship with our industry partners allows students to be exposed to real-life case studies, enabling them to formulate innovative solutions even before they graduate. Innovative accelerators such as GrowthX Academy and Supercharger create a platform for students to realize their worldchanging ideas, inspiring them to build startups and develop world-changing solutions.



#### PROFESSIONAL DEVELOPMENT WITH GLOBAL OUTLOOK

Communication skills, professionalism and cultural sensitivity are 'people' element skills that cannot be replaced by machines and automation. Under our unique formula to nurture professionalism, we create an ecosystem that simulates the workplace oncampus. Global outlook, international understanding and respect are nurtured through continuous immersion in multicultural discourse, as our campus houses a community of 13,000 students from over 130 countries.

# Collaborative Industrial

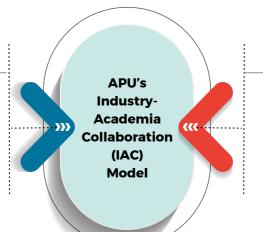
Industry-academia collaboration is a strategic necessity to ensure the quality and relevance of our programmes. Through our Industry-Academia Collaboration (IAC) model, we design programmes in collaboration with inputs from the industry, that are also aligned with the government's initiatives to address the shortage of skilled talents. Over the years, APU has established collaborations with key industry players worldwide; we have been delivering highly-relevant programmes that help us develop skilled and professional graduates for the workforce.

Partners

#### **COLLABORATIVE INDUSTRIAL PARTNERS**

#### **INDUSTRY**

- Industry Advisory Panel (IAC)
- Joint Certifications
- Supply of Internationally-Recognised & Industry-Relevant Skills



#### **GOVERNMENT**

- Enhancing Employability of Graduates
- Simulation of Growth within ICT Industry
- Talent Development Plans to Address
   Job Needs





APU has signed a MoA with HILTI allowing for HILTI to sit in our industrial advisory panel for curriculum development. HILTI is where many of APU graduates are currently working having established OJTs in Liechtenstein and Switzerland. Traditionally APU academicians have been judges and students as participants in HILTI industrial competitions in which APU has done well constantly.



APU collaborated with IBM on academic initiative to deliver a series of technical workshop, technology talks, industry visits, etc. IBM academy collaboration has received overwhelming participations from APU students. APU has produced over 200 students as IBM certified solution designers and application developers so far.



Microsoft has been an APU industrial partner for over two decades. APU is one of the frontier universities on the Microsoft Talent Development programme. Students at APU have continued to engage directly with professionals from Microsoft via workshops and talk sessions. Many of these students have also attained professional Microsoft certification allowing for greater job prospects. APU has also received the Microsoft Azure Educator Grant Award





APU continues to work closely with MDEC on the development of IT graduates feeding into the industry. APU has built itself as a top institution serving the needs of digital, computing and IT employability in Malaysia. This is further enhanced via student competitions and projects that APU has been directly involved with.

> con't >

#### **COLLABORATIVE INDUSTRIAL PARTNERS**



Under the Elevating IT Education (ELITE) program, a unique Education Outreach Program set up by Tecforte Group, a Security Operation Centre (SOC) is set up in APU to produce career-ready graduates that are able to "hit the ground running" upon graduation and are equipped with relevant cybersecurity skillsets that would meet the expectation from the industry. By manning the live industry-grade Security Operations Centre, students get to have practical hands-on & Industry-like experience from the People, Process and Technology perspectives.



The state-of-the-art Cisco Networking Academy laboratory in collaboration with Cisco is built to provide hands-on experience and vibrant environment to gain practical experience and learn modern concepts and industry practices in computer networks. Equipped with routers, switches and a multitude of academic and commercial software to design, simulate, test, monitor, analysis and manage computer networks, the laboratory is used by the Cisco Networking Academy program to equip students with hands-on digital skills training.



The joint collaboration between APU and Salesforce is committed towards talent development of customer relationship management (CRM) professionals in Malaysia and the region. Salesforce is a developer, manufacturer and distributor of CRM technologies and with this partnership APU looks forward to having a working relationship with Salesforce in the teaching of CRM concepts to IT professionals for the industry.



Materialise and APU have collaborated to mutually work to facilitate opportunities for consultancy or project development services directly towards talent building in the field of computer engineering, online services and 3D printing. This agreement is intended to facilitate the industrial relationship between both parties concerning opportunities for consultancy services in the areas of expertise of APU.

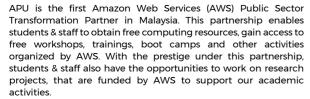


Cyber Test Systems is a French company composed of experts with more than 20 years of experience in the field of cyber defense training. The Cyber Test Systems introduced the first of its kind cyber defence technologies called "Cyber Range" in Malaysia, that can simulate highly complex cyber-attacks in a hyper realistic environment, enabling cyber security professionals and students to prepare themselves in dealing with real cyber threat attack when it happens.



The collaboration between APU and KPMG is intended to drive Cyber Security capability building and students involvement within APU which is relevant to ICT industry requirements by tapping into KPMG's experience and network. KPMG has also been involved in industry review and feedback of APU's Cyber Security programmes.

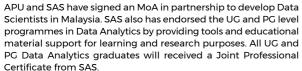






APU-ISACA Student Group is officially recognized by ISACA International Headquarters. It is the first officially recognized ISACA Student Group in Malaysia.ISACA Student Groups (ISGs) encourage education beyond the classroom by allowing students to network and learn from each other, and connect with a supportive group of professionals. Upon the establishment of this group, APU is accessible to ISACA's material, tools as well as a range of other benefits.







MoU between APU and Fusionex has been signed during the Big Data Week in 2016. Fusionex has been supportive in providing Post Graduate case studies, UG final year projects and UG internships. Fusionex has guided and allowed the GIANT analytics tools to used for educational and learning purposed at the UG level Data Analytics courses.

#### **COLLABORATIVE INDUSTRIAL PARTNERS**



APU established Oracle Academy partnership which makes available CS education resources that are up-to-date, industryrelevant, and engaging. It also provides support in curriculum. Faculty Professional Development, Certifications and community building.



APU and F-Secure has been partners in joint students skills development enhancement in the areas of forensics and cyber security. F-Secure's prominent industrial level competitions have been constantly participated in by APU students and they have traditionally done extremely well.



The collaboration between APU and ASTRO is to mutually facilitate opportunities to benefit the growing need for software engineers in the current ICT industry and the requirements of digital transformation. This is in line with projects by APU students as part of their coursework assignments or final year projects as supervised by APU academicians with ASTRO professionals as the industry supervisors. A project working space in the name of APU-ASTRO Innovation Zone (AIZ) to be provided for students to work on live projects with an ASTRO stationed personnel.



APU and LuxTag have agreed to work mutually to facilitate opportunities for consultancy and development services to benefit the growing need for technology and innovation in the current ICT industry. As the main focus, LuxTag will provide knowledge sharing services on Blockchain Technology to the students of APU, starting with seminars and workshops that could be embedded as part of the curriculum. In addition, this would provide opportunities for students and lecturers to participate in Research & Development activities.



APU became the first university in Malaysia to partner with EMC under its successful EAA initiative and introduced courses on Data Science and Big Data Analytics, Cloud Infrastructure and Services. Information Storage & Management to undergraduate students.



APU and Finterra Technologies have entered into a partnership to build on block chain capability by collaborating on industrial training and internship placements, industry inputs on academic programme development, student project supervision, guest lectures and adjunct appointments as well as on research and development.



APU joined MyUniAlliance SAP UAP in 2012. This alliance allows students to access SAP curriculums, demos, webinars, recorded videos and other learning platforms.



APU became CompTIA's First Academic



APU and Wizlynx have partnered to facilitate the industrial relationship and collaboration for research & development and for collaborative activities in IT Security and technology



Partner in Malaysia. It provided an excellent opportunity for APU students to get vendorneutral IT education embedded in their curriculum through CompTIA.



APU has joined with Supercharger to develop future talents and academicians that are proficient in financial technology via Fin Tech Specialization Centre by allowing exchange of knowledge and expertise and to ensure talents are well prepared to enter the financial services industry.



Metronomik is a video game company founded and has been one of the APU Industrial Advisory Panel (IAP) members in providing industrial input and feedback on our Computer Games Development (CGD) programme. Besides, various activities such as the industrial visits, talks and seminars have been co-organised with Metronomik since 2018



Xhinobi is a game development studio established in Kuala Lumpur since 2018. Besides gamification for enterprises, they also provide solutions in video game development and VR & AR projects. APU and Xhinobi have been in collaboration by providing industrial experience opportunities such as internship and industrial talks for our students in the area of computer games development.

32 / COLLABORATIVE INDUSTRIAL PARTNERS COLLABORATIVE INDUSTRIAL PARTNERS / 33 /











- BSc (Hons) in Information Technology
- BSc (Hons) in Information Technology with a specialism in Mobile Technology
- · BSc (Hons) in Information Technology with a specialism in Cloud Engineering
- · BSc (Hons) in Information Technology with a specialism in Information System Security
- · BSc (Hons) in Information Technology with a specialism in Internet Of Things

Amazon Web Services (AWS) is the world's most broadly adopted cloud platform offering several fully featured services from data centers globally. As an Amazon Web Services (AWS) Academy member institution, Asia Pacific University of Technology & Innovation offers the AWS Academy cloud computing curriculum through its multi-disciplinary IT degree options that prepares students to pursue careers in the fast-growing cloud computing space and industry-recognized AWS Certifications. The AWS Academy curriculum is developed and maintained by AWS subject matter experts, ensuring that it reflects current services and up-to-date best practices. Courses are taught by AWS Academy-accredited educators who are trained by AWS to help students become proficient in AWS technology.

#### PROFESSIONAL CERTIFICATION PARTNERS

#### **AWS ACADEMY MEMBER INSTITUTION**

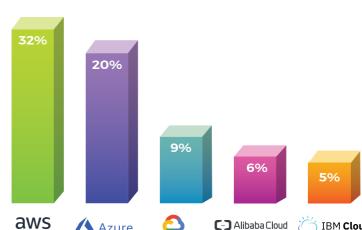
The rapid rise of computing is creating a growing number of high-quality jobs at organizations around the world, and the technical skills that students develop through this program will position them well for their careers today and in the future.

#### **Career Options:**

- · Cloud Architect
- Systems Engineer
- Systems AnalystDevOps Engineer
- · Reliability Engineer
- Build Engineer
- Software Developer
- System Architect
- Software Development ManageIT Manager
- · Data Innovation Manager
- Machine Learning Scientist
- Business Process Engineer
- · Data Wrangler / Munger / Miner
- Business Intelligence Manager
- · Analytics & Reporting Manager
- Decision Analytics Manager

#### **Amazon Leads \$130-Billion Cloud Market**

Worldwide market share of leading cloud infrastructure service provider in Q4 2020\*



FY 2020 cloud infrastructure service revenue \$ 129 billion

\* includes platform as a service (PaaS) and infrastructure as a service (laaS) as well as hosted private cloud as services













Source: Synergy Research Group

#### **CISCO CERTIFIED CCNA**





BSc (Hons) in Information Technology with a specialism in Cloud Engineering

CISCO is the worldwide leader in IT and networking. Achieving CISCO CCNA certification is the first step in preparing for a career in IT technologies. To earn CCNA certification, you pass one exam that covers a broad range of fundamentals for IT careers, based on the latest networking technologies, software development skills, and job roles.

The undergraduate APU students who enlist under this programme, will get an opportunity to get the CISCO CCNA certification which follows CCNA v7 prospectus. There are 4 modules under this programme that were designed following CCNA syllabus. This giving benefits to students as they have access to various resources and simulation software through the learning platform to facilitate their learning. As a CISCO Academy partner, APU had a dedicated CISCO lab with all CISCO devices. This facility is provided to ensure our students are exposed to the real physical configuration of network devices such as routers and switches in their lab sessions at level 2 and level 3 of their undergraduate program. With the best facility and skilled certified instructors, the students should be fully ready to sit for their CCNA certification exam during their final semester of undergraduate study.

/ 34 / PROFESSIONAL CERTIFICATION PARTNERS / 35 /



#### COMPUTING. TECHNOLOGY. MULTIMEDIA & GAMES DEVELOPMENT **STUDY PATHWAYS**

#### COMMON SEMESTER 1/LEVEL 1

All the programmes have similar modules in semester 1. Modules that provide appropriate foundation for any IT professional include Systems Analysis & Design, Introduction to Networking Programming with Python, and introductory programming. Modules such as Mathematics for Technology provide the basic academic skills that students require.

General understanding of the work environment and aspects of personal and organizational development are provided by Digital Thinking and Innovation, Professional and Enterprise Development, and Introduction to Management.

#### **PROGRAMMES**

- · BSc (Hons) in Information Technology
- · BSc (Hons) in Information Technology with a specialism in:
  - Information System Security
  - Cloud Engineering
  - Mobile Technology
- Internet of Things (IoT) - Digital Transformation
- Financial Technology (FinTech)
- **Business Information Systems**
- BSc (Hons) in Software Engineering
- · BSc (Hons) in Computer Science
- · BSc (Hons) in Computer Science with a specialism in: - Data Analytics
  - Digital Forensics
- Bachelor of Computer Science (Hons) (Intelligent Systems)

#### SPECIALISED LEVEL 1\*

SPECIALISED LEVEL 1\*

**SPECIALISED LEVEL 1\*** 

BSc (Hons) in Computer Science (Cyber Security)

BSc (Hons) in Multimedia Technology

BSc (Hons) in Multimedia Technology with a specialism in VR/AR

BSc (Hons) in Computer Games Development

Note: \*Although Semester 1 at Level 1 is common for some programmes, students who are on scholarships or loans (e.g. PTPTN, MARA etc.) are required to decide on your degree upon commencement and are not allowed to change to another programme unless approved by the Loan/Scholarship provider. International Students are required to re-apply for a new Student Pass (visa) should they decide to change the programme



#### **Duration:**

3 years full-time

This programme is specifically designed to provide students with:

- Familiarity with a broad range of information technologies and how they are used.
- An understanding of frameworks and planning techniques for the strategic management of information systems in organisations.
- The ability to critically evaluate and apply appropriate strategies and techniques to the development of information technologies

#### **Career options**

- Systems Analyst
- IT Executive
- IT Consultant
- Information Systems Analyst
- Chief Technology Officer (CTO)
- Technical Support Manager IT Sales Manager
- IT Application Developer
- IT Auditor
- IT Project Manager
- IT Helpdesk Manager
- System Administrator
- Systems Consultant



**Member Institution** 







#### At a glance

(P2/482/6/0189)(08/25)(A6210)

#### LEVEL 1

Students will learn fundamental skills required by every IT professional, and the basic understanding of the underlying computer system through Computer Architecture, operating systems, networking and databases. The modules will also help them develop personal and organisational skills, as well as nurture creativity and innovation.

A broader range of skills will be learnt, in which students will gain a better understanding of frameworks and planning techniques for the strategic management of information systems, programming languages and techniques, and further analysis and design skills. We will further nurture their creativity and innovation as well as independent learning to prepare them for the workplace.

#### INTERNSHIP

Students will undertake an Internship/Industrial Training for a minimum period of 16 weeks to prepare them for a smooth transition from the classroom to the working environment

#### LEVEL 3

Students will make use of their previous studies and industrial experience to extend their familiarity in a broad range of information technologies and to refine their personal and professional development. Students will enhance their programming skills and move further into the areas of cloud computing and big data. A final year project requires them to investigate and develop a solution for a realworld problem - they will demonstrate their ability to combine technical knowledge, critical thinking and analytical skills to produce a personal achievement portfolio.

#### **MQA Compulsory Subjects\***

- · Appreciation of Ethics and Civilisation (M'sian Students)
- · Malay Communication Language (Int'l Students)
- · Philosophy and Current Issues
- · Workplace Professional Skills · Integrity and Anti-corruption
- Co-Curriculum

(\*All students are required to successfully complete these modules as stipulated by the Malaysian Qualification Agency)

#### LEVEL 1

#### Common Modules

Module outline

- Digital Thinking and Innovation
- Intercultural Awareness and Cultural Diversity
- System Analysis & Design
- Programming with Python
- Mathematical Concepts for Computing
- Operating Systems & Computer Architecture Introduction to Networking
- · Introduction to Databases
- · Introduction to C Programming
- Fundamental of Entrepreneurship

#### **Specialised Module**

Fundamentals of Web Design and Development

#### LEVEL 2

#### **Common Modules**

- Object Oriented Development with Java
- System Development Methods
- Programming for Data Analysis
- Innovation Process
- Research Methods for Computing and Technology
- Probability & Statistical Modelling

#### **Specialised Modules**

- Mobile & Wireless Technology
- Web Applications
- Integrated Business Processes with SAP ERP
- **Human-Computer Interaction**
- System & Network Administration
- Data Centre Infrastructure

#### INTERNSHIP (16 weeks)

#### LEVEL 3

#### **Common Modules**

- · Project Management Venture Building
- **Specialised Modules**
- Mobile & Web Multimedia · Emergent Technology
- Advanced Database Systems
- Computer Systems Management · Cloud Infrastructure & Services
- · Investigations in Information Technology
- Information Technology Project

#### **Elective Modules (Choose 2)**

- Internet of Things: Concepts & Applications **OR** Distributed Computer Systems **OR**
- Blockchain Development
- Designing & Developing Applications on the Cloud **OR** Knowledge Discovery & Big Data Analytics

/ 36 / COMPUTING, TECHNOLOGY, MULTIMEDIA & GAMES DEVELOPMENT

COMPUTING, TECHNOLOGY, MULTIMEDIA / 37 / & GAMES DEVELOPMENT



3 years full-time

they are used.

Career options

IT Security Officer

IT Security Analyst

IT Security Consultant

IT Security Engineer

IT Security Specialist

This programme is specifically

designed to provide students with:

Familiarity with a broad range of

information technologies and how

A specialised and focused emphasis

on information systems security as it

applies in contemporary industry.

to critically evaluate and refine

information systems security

strategies and programmes.

The skills and knowledge required

IT Security Infrastructure Designer

IT Security Solutions Designer

Chief Technology Officer (CTO)

Information Security Engineer

Information Security Analyst

Information Security Manager

**Technical Support Manager** 

**Network Security Engineer** 

System Administrator

**aws** academy

Member Institution

Note: The specialism will appear only in the academic transcript.

#### BSc (Hons) in **INFORMATION TECHNOLOGY** WITH A SPECIALISM IN INFORMATION SYSTEM SECURITY

(P2/482/6/0189)(08/25)(A6210)

#### At a glance

#### LEVEL 1

Students will learn fundamental skills required by every IT professional, and the basic understanding of the underlying computer system through Computer Architecture, operating systems, networking and databases. Some specialised modules will provide them basic knowledge of security and computer forensics. The modules will also help them develop personal and organisational skills, as well as nurture creativity and innovation.

A broader range of skills will be learnt, in which students will gain a better understanding of frameworks and planning techniques for the strategic management of information systems. along with specialised skills and knowledge required to critically evaluate and refine information systems security strategies and programmes. Students will gain solid technical knowledge of computer systems security with the appreciation to human security policies and actions. We will further nurture their creativity and innovation as well as independent learning to prepare them for the workplace.

#### INTERNSHIP

Students will undertake an Internship/Industrial Training for a minimum period of 16 weeks to prepare them for a smooth transition from the classroom to the working environment.

Students will will make use of their previous studies and industrial experience to extend their familiarity in a broad range of information technologies and to refine their personal and professional development. Students will enhance their programming skills and move further into the areas of cloud computing and big data. A final year project requires them to investigate and develop a solution for a realworld problem - they will demonstrate their ability to combine technical knowledge critical thinking and analytical skills to produce a personal achievement portfolio.

#### **MQA Compulsory Subjects\***

- · Appreciation of Ethics and Civilisation (M'sian Students)
- · Malay Communication Language (Int'l Students)
- · Philosophy and Current Issues
- · Workplace Professional Skills
- · Integrity and Anti-corruption
- · Co-Curriculum
- (\*All students are required to successfully complete these modules as stinulated by the Malaysian Qualification Agency

#### Module outline

- Digital Thinking and Innovation
- Intercultural Awareness and Cultural Diversity
- System Analysis & Design
- Mathematical Concepts for Computing
- Operating Systems & Computer Architecture
- Introduction to Databases
- · Introduction to C Programming

#### **Specialised Module**

Introduction to Security and Forensic Technologies

- Object Oriented Development with Java

- Innovation Process
- Technology
- Probability & Statistical Modeling

#### **Specialised Modules**

- System & Network Administration
- Mobile & Wireless Technology

- · Web Applications

#### INTERNSHIP (16 weeks)

#### I FVFI 3

#### **Common Modules**

- Computer Systems Security
- Computer Systems Management
- Cloud
- · Wireless and Mobile Security
- Cloud Infrastructure and Services
- Investigations in Information Systems Security

#### LEVEL 1

#### Common Modules

- Programming with Python
- Introduction to Networking

- · Fundamental of Entrepreneurship

#### LEVEL 2

#### **Common Modules**

- System Development Methods
- Programming for Data Analysis
- Research Methods for Computing and
- Network Security
- Ethical Hacking & Incident Response
- Human-Computer Interaction

- · Project Management
- · Venture Building
- **Specialised Modules**

- Designing & Developing Applications On the
- Database Security
- Penetration Testing
- · Information Systems Security Project



#### 3 years full-time

**Duration:** 

#### This programme is specifically designed to provide students with:

- An understanding of frameworks and planning techniques for the strategic management of cloud-based information systems in organisations
- The ability to critically evaluate and apply cloud computing technologies, networking technologies and topologies, as well as the skills and expertise required for cloud-focused engineering roles.
- The skills and knowledge required to develop and assess network architectures and networked computing applications.

#### **Career options**

- Chief Technology Officer (CTO)
- Server Developer
- Cloud Solution Consultant
- Technical Support Manager
- **IT Cloud Test Engineer** Cloud Platform Developer
- Data Center Operator
- Cloud Architect
- **Cloud Software Engineer**
- Cloud Network Engineer Cloud Product Manager
- Cloud Consultant Network Designer



cisco



Note: The specialism will appear only in the academic transcript.



(P2/482/6/0189)(08/25)(A6210)

creativity and innovation.

Students will learn fundamental skills required by

every IT professional, and the basic understanding

of the underlying computer system through

computer architecture, operating systems,

networks, and databases. Some specialised

modules will provide students with basic

knowledge of web design and development. The

modules will also help them develop personal

and organisational skills, as well as nurture

A broader range of skills will be learnt, in which

students will gain a better understanding

of frameworks and planning techniques for

the strategic management of organization's

computing resources, along with technical skills

to evaluate, design, configure and maintain

shared computing infrastructure. They will

gain solid understanding of the importance of

enterprise systems and network administration

in virtual computing environments. They will

have programming skills needed in systems

administration, network technologies, network

design, and network security. We will further

nurture their creativity and innovation as well as

independent learning to prepare them for the

Students will undertake an Internship/Industrial

Training for a minimum period of 16 weeks to

prepare them for a smooth transition from the

Students will make use of their previous

studies and industrial experience to extend

their familiarity in the field of cloud computing

and to refine their personal and professional

development. Students will learn how to design

and manage cloud-based systems in enterprises

using programming skills, management,

and planning strategies. Students will have a

deeper understanding of enterprise network

components, settings, and methodologies, as well

as a better understanding of edge computing

concepts and applications. A final year project

solution for a real-world problem - they will

demonstrate their ability to combine technical

knowledge, critical thinking, and analytical skills

to produce a personal achievement portfolio.

classroom to the working environment.

At a glance

LEVEL 1

LEVEL 2

workplace.

INTERNSHIP

I FVFI 3

- System Analysis & Design
- Mathematical Concepts for Computing
- Operating Systems & Computer Architecture
- Introduction to Databases
- · Fundamental of Entrepreneurship

#### **Specialised Module**

Fundamentals of Web Design and Development

#### **Common Modules**

- Probability and Statistical Modeling
- Innovation Process
- Technology

- Switching and Routing Essentials
- · Web Applications
- Data Centre Infrastructure
- Network Security
- **Common Modules**
- Project Management Venture Building

- Investigations in Cloud Engineering
- Computer Systems Management
- Designing and Developing Applications on
- Emergent Technology Enterprise Networking and Automation
- requires them to investigate and develop a Internet of Things: Concepts and Applications

#### **MQA Compulsory Subjects\***

- · Appreciation of Ethics and Civilisation (M'sian Students)
- Malay Communication Language (Int'l Students)
- · Workplace Professional Skills · Integrity and Anti-corruption

Co-Curriculum

(\*All students are required to successfully complete these

# Module outline

#### LEVEL 1

#### **Common Modules**

- Digital Thinking and Innovation
- Intercultural Awareness and Cultural Diversity
- Programming with Python
- Introduction to Networking
- Introduction to C Programming

LEVEL 2

- Programming for Data Analysis
- Research Methods for Computing and

#### Specialised Modules

- Introduction to Virtualization
- Mobile & Wireless Technology
- Systems & Network Administration
- Human Computer Interaction

#### INTERNSHIP (16 weeks)

- I EVFI 3
- **Specialised Modules**
- **Edge Computing Concepts and Applications**
- the cloud
- Cloud Infrastructure and Services
- Cloud Engineering Project
- · Philosophy and Current Issues

modules as stipulated by the Malaysian Qualification Agency)

& GAMES DEVELOPMENT



/ 38 / COMPUTING, TECHNOLOGY, MULTIMEDIA



3 years full-time

they are used.

**Career options** 

This programme is specifically

support various activities.

solutions using appropriate

Mobile Application Developer

Android Mobile Developer

M-Commerce Consultant

Telecommunications Solutions

Chief Technology Officer (CTO)

Mobile Application Specialist

Technical Support Manager

Mobile Solutions Consultant

Mobile Application Designer

**aws** academy

Member Institution

Mobile iOS Developer

Mobile Programmer

**Application Engineer** 

platforms, tools, and techniques.

designed to provide students with:

Familiarity with a broad range of

information technologies and how

The ability to specify and manage the implementation of a range of

mobile communications systems to

The ability to design, develop, and implement viable mobile technology

#### BSc (Hons) in INFORMATION TECHNOLOGY WITH A SPECIALISM IN **MOBILE TECHNOLOGY**

(P2/482/6/0189)(08/25)(A6210)

#### At a glance

#### LEVEL 1

Students will learn fundamental skills required by every IT professional, and the basic understanding of the underlying computer system through Computer Architecture, operating systems, networking and databases. Some specialised modules will provide them basic knowledge of security and computer forensics. The modules will also help them develop personal and organisational skills, as well as nurture creativity and innovation.

A broader range of skills will be learnt, in which students will gain a better understanding of the platforms, tool and techniques needed to design, develop and implement viable mobile technology solutions. They will gain solid understanding of mobile and wireless technologies and mobile app development. We will further nurture their creativity and innovation as well as independent learning to prepare them for the workplace

Students will undertake an Internship/Industrial Training for a minimum period of 16 weeks to prepare them for a smooth transition from the classroom to the working environment.

#### I FVFI 3

Students will make use of their previous studies and industrial experience to extend their familiarity in the field of mobile computing and to refine their personal and professional development. Students will move further into advanced programming skills for full range of mobile computing applications such as games, multimedia and enterprise-level mobile applications. A final year project requires them to investigate and develop a solution for a realworld problem - they will demonstrate their ability to combine technical knowledge, critical thinking and analytical skills to produce a personal achievement portfolio.

#### **MQA Compulsory Subjects\***

- · Appreciation of Ethics and Civilisation
- (M'sian Students)
- · Malay Communication Language (Int'l Students) · Philosophy and Current Issues
- · Workplace Professional Skills
- · Integrity and Anti-corruption
- · Co-Curriculum

(\*All students are required to successfully complete these modules as stipulated by the Malaysian Qualification Agency)

#### Module outline

#### LEVEL 1

- Digital Thinking and Innovation
- Intercultural Awareness and Cultural Diversity
- System Analysis & Design
- Operating Systems & Computer Architecture
- Introduction to Databases
- · Introduction to C Programming
- · Fundamental of Entrepreneurship

#### **Specialised Module**

Introduction to Mobile Technologies

#### LEVEL 2

- Innovation Process
- Technology
- iOS Mobile App Development
- Mobile & Wireless Technology
- Computer Games Design, High Concept and Preproduction
- Human-Computer Interaction
- Web Applications

#### INTERNSHIP (16 weeks)

#### I FVFI 3

#### **Common Modules**

· Project Management

#### **Specialised Modules**

- Computer Systems Management
- Advance Mobile Computing with Android
- Cloud Infrastructure and Services
- Multi-Platform Mobile App Development
- · Emergent Technology
- Mobile Commerce
- Investigation in Mobile Technology
- Mobile Technology Project

#### Common Modules

- Programming with Python
- Mathematical Concepts for Computing
- Introduction to Networking

#### Common Modules

- · Object Oriented Development with Java
- System Development Methods
- Programming for Data Analysis
- Research Methods for Computing and
- Probability and Statistical Modelling

#### Specialised Modules

- Mobile App Engineering

- · Venture Building

- Mobile and Web Multimedia



#### At a glance LEVEL 1

This programme is specifically designed to provide students with:

- The knowledge to design, engineer, and develop IoT- based solution using various platforms in a broader and vendor neutral perspective.
- An understanding of important insights on sensor devices, internet based technologies, wireless communications, and cloud computing.

#### **Career options**

**Duration:** 

3 years full-time

- Microcontroller Programmer
- Machine Learning Programmer
- **Cloud Security Specialist**
- **Embedded Device Developer**
- Data Scientist **Network Developers**
- Mobile Application Developer
- Web Developer
- Big Data Analysts **Technology Consultant**
- Web Development Engineer
- Project Manager IoT IoT Innovation Manager
- IoT Software Developer
- Infrastructure and Test Engineer



**Member Institution** 



Note: The specialism will appear only in the academic transcript.



Module outline

**Common Modules** 

(P2/482/6/0189)(08/25)(A6210)

Students will learn fundamental skills required by every IT professional, and the basic understanding of the underlying computer system through Computer Architecture, operating systems, networking and databases. Some specialised modules will provide them basic knowledge of programming and Internet of Things (IoT). The modules will also help them develop personal and organisational skills, as well as nurture creativity and innovation.

BSc (Hons) in INFORMATION TECHNOLOGY

A broader range of skills will be learnt, in which students will gain better understanding of the broad range of Internet of Things technologies, which include networking, systems programming and security. They will gain solid understanding of IoT as an enabler for an organisation. We will further nurture their creativity and innovation as well as independent learning to prepare them for the workplace.

#### INTERNSHIP

Students will undertake an Internship/Industrial Training for a minimum period of 16 weeks to prepare them for a smooth transition from the classroom to the working environment.

#### LEVEL 3

Students will make use of their previous studies and industrial experience to extend their familiarity in the field of Internet of Things (IoT) and to refine their personal and professional development. Students will move further into the frameworks and planning techniques for strategic management of cloud-based IoT systems in organisations. A final year project requires them to investigate and develop a solution for a real-world problem - they will demonstrate their ability to combine technical knowledge, critical thinking and analytical skills to produce a personal achievement portfolio.

#### **MQA Compulsory Subjects\***

- · Appreciation of Ethics and Civilisation (M'sian Students)
- · Malay Communication Language (Int'l Students)
- · Philosophy and Current Issues
- · Workplace Professional Skills · Integrity and Anti-corruption

· Co-Curriculum

(\*All students are required to successfully complete these nodules as stipulated by the Malaysian Qualification Agency)

#### LEVEL 1

- Digital Thinking and Innovation
- Intercultural Awareness and Cultural Diversity
- System Analysis & Design
- Programming with Python
- Mathematical Concepts for Computing
- Operating Systems & Computer Architecture Introduction to Networking
- Introduction to Databases
- Introduction to C Programming Fundamental of Entrepreneurship

#### **Specialised Module**

Introduction to IoT

#### LEVEL 2

#### **Common Modules**

- Object Oriented Development with Java
- System Development Methods
- Programming for Data Analysis Research Methods for Computing and
- Technology Innovation Process
- **Specialised Modules**
- · Mobile & Wireless Technology Web Applications
- Probability & Statistical Modelling
- · System Programming & Computer Control LOWPAN & Ad-hoc Networking
- Enterprise Internet of Things

#### Network Security

#### INTERNSHIP (16 weeks)

I FVFI 3

- **Common Modules** Project Management
- Venture Building
- Specialised Modules
- Distributed Computer Systems Developing IoT Applications Computer Systems Management
- · Cloud Infrastructure & Services · Emergent Technology
- Knowledge Discovery & Big Data Analytics HCI & Usability
- Investigations in Internet of Things · Internet of Things Project

/ 40 / COMPUTING, TECHNOLOGY, MULTIMEDIA & GAMES DEVELOPMENT

Note: The specialism will appear only in the academic transcript.

COMPUTING, TECHNOLOGY, MULTIMEDIA / 41 / & GAMES DEVELOPMENT



3 years full-time

This programme is specifically

designed to provide students with:

A broad range of digital technologies

and platforms for digital business

leaders or entrepreneurs for the

on the most in-demand skills in

digital leadership, namely digital

finance and execution.

**Business IT Analyst** 

**Innovation Architect** 

Digital Transformation Officer

Chief Innovation Officer (CIO)

**Business Transformation Analyst** 

**Enterprise Digital Transformation** 

HR Digital Transformation Lead

Digital Finance Transformation

Note: The specialism will appear only in the academic transcript.

Strategic IT Consultant

**Customer Experience Transformation** 

**Business Strategies** 

**Digital Strategist** 

Digital Designer

Lead

Digital Engineer

**Career options** 

Digital Lead

Entrepreneur

transformation and nurture digital

Necessary knowledge and contents

transformation, marketing, analytics,

#### BSc (Hons) in INFORMATION TECHNOLOGY WITH A SPECIALISM IN **DIGITAL TRANSFORMATION**

(P2/482/6/0189)(08/25)(A6210)

#### At a glance

#### LEVEL 1

Students will learn fundamental skills required by every IT professional, and the basic understanding of the underlying computer system through Computer Architecture, operating systems, networking and databases. Some specialised modules will provide the basic knowledge of digital technologies. The modules will also help them develop personal and organisational skills, as well as nurture creativity and innovation.

#### LEVEL 2

A broader range of skills will be learnt, in which students will gain a solid grounding in the general technical aspects of digital technologies and platforms for digital business transformation. They will gain better understanding, and skills on how digital technologies and business models are radically changing competitive dynamics across industries.

#### INTERNSHIP

Students will undertake an Internship/Industrial Training for a minimum period of 16 weeks to prepare them for a smooth transition from the classroom to the working environment.

Level 3 focuses on the broad theoretical foundation for understanding contemporary phenomena, provides methods and techniques for analysing the implications of digitalisation, and supports students in developing practical skills to deal with change in complex

Students will make use of their previous studies and industrial experience to extend their familiarity in the field of business information technologies and to refine their personal and professional development. A final year project requires them to investigate and develop a solution for a real world finance business problem - they will demonstrate their ability to combine technical knowledge, critical thinking and analytical skills to produce a personal achievement portfolio.

#### **MQA Compulsory Subjects\***

- Appreciation of Ethics and Civilisation
- (M'sian Students) · Malay Communication Language (Int'l Students)
- · Philosophy and Current Issues
- · Workplace Professional Skills
- Integrity and Anti-corruption
- · Co-Curriculum

(\*All students are required to successfully complete these modules as stipulated by the Malaysian Qualification Agency)

#### Module outline

#### LEVEL 1

- Digital Thinking and Innovation
- Programming with Python
- Mathematical Concepts for Computing
- Operating Systems & Computer Architecture

- · Introduction to C Programming
- · Fundamental of Entrepreneurship

#### **Specialised Module**

· Fundamentals of Web Design and Development

#### LEVEL 2

#### **Common Modules**

- System Development Methods

- Research Methods for Computing and
- · Human-Computer Interaction
- · Web Applications
- · Innovation Process

#### Specialised Modules

- Leading Digital Business Transformation

#### LEVEL 3

#### **Common Modules**

- Investigations in Digital Transformation
- Project Management
- Project in Digital Transformation
- Venture Building

#### **Specialised Modules**

- Digital Finance
- · Digital Strategy and Analytics
- Emergent Technology

**Duration:** 

3 years full-time

they are used.

Career options

This programme is specifically

designed to provide students with:

Familiarity with a broad range of

information technologies and how

Knowledge and skills in managing

development and working within

the rapidly changing Global Banking

FinTech Infrastructure Administrator

Global Business Solution Consultant

IT Business Development Manager

financial products, product

and Finance Industry.

FinTech Systems Analyst

IT Business Analyst

System Analyst

IT and FinTech Consultant

Technical Business Analyst

Business Intelligence Manager

**Business Systems Analyst** 

**CRM Business Analyst** 

Chief Technology Officer (CTO)

#### Common Modules

- Intercultural Awareness and Cultural Diversity
- System Analysis & Design
- Introduction to Networking
- Introduction to Databases

- · Programming for Data Analysis
- Object Oriented Development with Java
- Probability & Statistical Modelling
- System and Network Administration
- Technology
- Integrated Business Processes with SAP ERP

- Digital Marketing
- Network Security

#### INTERNSHIP (16 weeks)

- Computer Systems Management Cloud Infrastructure and Services
- Advanced Database System

- · Digital Execution

Note: The specialism will appear only in the academic transcript.

#### BSc (Hons) in INFORMATION TECHNOLOGY WITH A SPECIALISM IN FINANCIAL TECHNOLOGY (FinTech)

(P2/482/6/0189)(08/25)(A6210)

#### At a glance

#### LEVEL 1

Students will learn fundamental skills required by every IT professional, and the basic understanding of the underlying computer system through Computer Architecture, operating systems, networking and databases. Some specialised modules will provide the basic knowledge of business information technologies. The modules will also help them develop personal and organisational skills, as well as nurture creativity and innovation.

A broader range of skills will be learnt, in which students will gain a better understanding of the broad range of Information Technologies, and the specialised skills to apply frameworks and planning techniques for the strategic management of financial technologies. They will gain solid understanding of the support of business information technologies in modern organisational operations. We will further nurture their creativity and innovation as well as independent learning to prepare them for the workplace.

#### INTERNSHIP

Students will undertake an Internship/Industrial Training for a minimum period of 16 weeks to prepare them for a smooth transition from the classroom to the working environment.

#### LEVEL 3

Students will make use of their previous studies and industrial experience to extend their familiarity in the field of business information technologies and to refine their personal and professional development. A final year project requires them to investigate and develop a solution for a real world finance business problem - they will demonstrate their ability to combine technical knowledge, critical thinking and analytical skills to produce a personal achievement portfolio.

#### MQA Compulsory Subjects\*

- · Appreciation of Ethics and Civilisation (M'sian Students)
- · Malay Communication Language (Int'l Students)
- · Philosophy and Current Issues
- · Workplace Professional Skills · Integrity and Anti-corruption
- · Co-Curriculum

(\*All students are required to successfully complete these nodules as stipulated by the Malaysian Qualification Agency)

#### Module outline

**Common Modules** 

#### LEVEL 1

- Digital Thinking and Innovation
- Intercultural Awareness and Cultural Diversity
- System Analysis & Design
- Programming with Python
- Mathematical Concepts for Computing
- Operating Systems & Computer Architecture
- Introduction to Networking
- Introduction to Databases
- Introduction to C Programming · Fundamental of Entrepreneurship

#### **Specialised Module**

Fundamentals of Web Design and Development

#### LEVEL 2

#### **Common Modules**

- Programming for Data Analysis
- Object Oriented Development with Java
- System Development Methods Innovation Process
- Research Methods for Computing and
- Technology · Human-Computer Interaction
- Web Applications
- **Network Security**
- Probability and Statistical Modelling Data Mining and Predictive Modelling
- Specialised Modules Financial Management
- · Financial Technology

#### INTERNSHIP (16 weeks)

#### I EVFI 3

#### **Common Modules**

- Project Management
- Project In FinTech Management Computer Systems Management
- Venture Building
- Investigations in FinTech Management Cloud Infrastructure and Service Distriuted Computer System

#### **Specialised Modules**

- Blockchain Development
- Robo Advisor FinTech Governance, Risk Management and
- · Emergent Technology

Compliance





3 years full-time

#### This programme is specifically designed to provide students with:

- Familiarity with a broad range of Information Systems and how they
- An understanding of frameworks and planning techniques for the strategic management of information systems in organisations.
- The ability to critically evaluate and recommend appropriate information system to fulfill the organisation's

#### **Career options**

- IT Business Systems Developer
- IT Systems Analyst
- F-Commerce Consultant
- Chief Technology Officer (CTO)
- Management Information System (MIS) Manager
- **Global Business Solution Specialist**
- Global Business Solution Consultant
- IT Business Development Manager
- IT Quality Assurance (QA) Analyst IT Business Engagement Manager
- SAP Business Analyst
- **Technical Business Analyst**
- Business Systems Analyst
- System Analyst
- Business Intelligence Manager
- **CRM Business Analyst**



Note: The specialism will appear only in the academic transcript.

#### BSc (Hons) in **INFORMATION TECHNOLOGY** WITH A SPECIALISM IN **BUSINESS INFORMATION SYSTEMS**

(P2/482/6/0189)(08/25)(A6210)

#### At a glance

#### LEVEL 1

Students will learn fundamental skills required by every IT professional, and the basic understanding of the underlying computer system through Computer Architecture, operating systems, networking and databases. Some specialised modules will provide them basic knowledge of web development and programming. The modules will also help them develop personal and organisational skills, as well as nurture creativity and innovation.

#### LEVEL 2

A broader range of skills will be learnt, in which students will gain a better understanding of the broad range of information technologies, and the specialised skills to apply frameworks and planning techniques for the strategic management of information systems. They will gain solid understanding of the support of business information systems in modern organisational operations. We will further nurture their creativity and innovation as well as independent learning to prepare them for the workplace.

#### INTERNSHIP

Students will undertake an Internship/Industrial Training for a minimum period of 16 weeks to prepare them for a smooth transition from the classroom to the working environment.

#### LEVEL 3

Students will make use of their previous studies and industrial experience to extend their familiarity in the field of business information systems and to refine their personal and professional development. Students will move further into the development of business proposals that introduce the development, deployment and business impact of information systems. A final year project requires them to investigate and develop a solution for a realworld problem - they will demonstrate their ability to combine technical knowledge, critical thinking and analytical skills to produce a personal achievement portfolio.

#### MQA Compulsory Subjects\*

- · Appreciation of Ethics and Civilisation
- (M'sian Students)
- · Malay Communication Language (Int'l Students)
- · Philosophy and Current Issues
- · Workplace Professional Skills
- · Integrity and Anti-corruption
- · Co-Curriculum
- (\*All students are required to successfully complete these modules as stipulated by the Malaysian Qualification Agency)

Module outline

#### LEVEL 1 Common Modules

- Digital Thinking and Innovation
- Intercultural Awareness and Cultural Diversity
- System Analysis & Design
- Programming with Python
- Mathematical Concepts for Computing
- Operating Systems & Computer Architecture
- Introduction to Networking
- Introduction to Databases
- · Introduction to C Programming
- · Fundamental of Entrepreneurship

#### **Specialised Module**

Introduction to Information System

#### LEVEL 2

#### **Common Modules**

- Programming for Data Analysis
- Object Oriented Development with Java
- System Development Methods
- Innovation Process
- Research Methods for Computing and Technology
- Human-Computer Interaction
- Web Applications
- Probability and Statistical Modelling
- **Enterprise Systems**
- Integrated Business Processes with SAP ERP

#### Specialised Modules

- Management Information System
- E-Commerce

#### INTERNSHIP (16 weeks)

#### I EVEL 3

#### **Common Modules**

- Project Management
- Internet of Things: Concepts & Applications
- Project In Information Systems Computer Systems Management
- · Venture Building
- Investigations in Information Systems

#### Specialised Modules

- Developing E-Commerce Applications with XMI
- · Information System Development Trends
- **Building Customer Relationships**
- · Emergent Technology
- · Designing & Developing Applications on the Cloud



#### **Duration:**

3 years full-time

#### This programme is specifically designed to provide students with:

- Familiarity with the tools and rigorous methodologies used to develop mission-critical and safety-critical software systems.
- The ability to critically evaluate algorithms, and techniques used to develop large-scale and complex software systems.
- A deep appreciation of the importance of software architecture, testing, documentation, and maintainability.

#### Career options

- Software Engineer
- Systems Analyst
- Project Manager
- Software Consultant
- Programmer
- Chief Technology Officer (CTO)
- **Application Engineer**
- Software Test Engineer
- Software Quality Assurance (QA)
- **R&D Specialist**
- Software Architect
- Systems Integration Engineer
- Senior Technical Lead
- Product Manager
- Solutions Architect Development Manager
- Senior System Designer



#### BSc (Hons) in **SOFTWARE ENGINEERING**

(P2/481/6/07)4)(04/26)(MOA/FA0366)

#### At a glance

#### LEVEL 1

Students will learn fundamental skills required by every IT professional, and the basic understanding of programming, problem solving skills, algorithmic skills, mathematical techniques and systems analysis and design. Some specialised modules will provide students with basic knowledge of underlying computer systems such as Computer Architecture, operating systems, networking and databases. The modules will also help them develop personal and organisational skills, as well as nurture creativity and innovation.

A broader range of skills will be learnt, in which students will gain a better understanding of design paradigms, languages, and algorithms used for developing large-scale and complex software systems. They will gain solid understanding of software lifecycle. and methodologies for specification, design, development, testing, evaluation, analysis and maintenance of software systems. We will further nurture their creativity and innovation as well as independent learning to prepare them for the workplace.

#### INTERNSHIP

Students will undertake an Internship/Industrial Training for a minimum period of 16 weeks to prepare them for a smooth transition from the classroom to the working environment

#### LEVEL 3

Students will make use of their previous studies and industrial experience to extend their familiarity in the field of software engineering and to refine their personal and professional development. Students will move further into system design methods that help them improve on software design, organisation and maintainability to produce concise and powerful software applications. A final year project requires them to investigate and develop a solution for a real-world problem - they will demonstrate their ability to combine technical knowledge, critical thinking and analytical skills to produce a personal achievement portfolio.

#### MQA Compulsory Subjects\*

- · Appreciation of Ethics and Civilisation (M'sian Students)
- · Malay Communication Language (Int'l Students)
- · Philosophy and Current Issues · Workplace Professional Skills
- · Integrity and Anti-corruption · Co-Curriculum

(\*All students are required to successfully complete these modules as stipulated by the Malaysian Qualification Agency)

#### Module outline

**Common Modules** 

#### LEVEL 1

- Digital Thinking and Innovation
- Intercultural Awareness and Cultural Diversity
- System Analysis & Design
- Programming with Python
- Mathematical Concepts for Computing
- Operating Systems & Computer Architecture Introduction to Networking
- Introduction to Databases
- Fundamental of Entrepreneurship

#### Specialised Module Introduction to Object Oriented Programming

- **Elective Modules (Choose 1)**
- Introduction to Artificial Intelligence Fundamentals of Web Design & Development

#### LEVEL 2

#### Common Modules

- Object Oriented Development with Java
- System Development Methods Programming for Data Analysis
- Innovation Process Research Methods for Computing and

#### **Specialised Modules**

· Computer Theory

Technology

- Data Structures
- Design Methods Requirements Engineering
- Software Architecture and Testing
- Enterprise Systems

#### **Elective Modules (Choose 1)**

- Concurrent Programming
- Further Web Design & Development Mobile App Engineering

#### INTERNSHIP (16 weeks)

#### LEVEL 3

#### **Common Modules**

- Venture Building Project Management
- **Specialised Modules** Advanced Programming Language Concepts
- Algorithmics
- Design Patterns
- Software Quality Engineering Designing & Developing Applications on
- Investigations in Software Engineering Software Engineering Project

#### **Elective Modules (Choose 2)**

- · Distributed Computer Systems **OR** Enterprise Programming for Distributed Applications OR Blockchain Development
- Advanced Database Systems **OR** HCI & Usability **OR** Optimisation and Deep Learning











3 years full-time

on data analytics.

Career options

Data Analyst

Data Scientist

IT Risk Analyst

Data Engineer

**Analytics Manager** 

This programme is specifically

designed to provide students with:

The ability to develop technical

the design and organisation of

The ability to critically evaluate

design paradigms, languages,

knowledge, skills and background in

computer systems with an emphasis

algorithms, and techniques used to

develop complex software systems.

The ability to evaluate and respond

to opportunities for developing and

exploiting new technologies with

data analytics concepts and tools.

Software Tool Developer

Data Analytics Manager

**Business Process Engineer** 

Business Analyst Manager

Data Innovation Manager

Business Intelligence Developer

Advance Analytics Professional

Business Intelligence Analyst

**Business Intelligence Solutions** 

Data Visualization Developer

Machine Learning Scientist

Data Wrangler/Munger/Miner

Chief Technology Officer (CTO)

#### BSc (Hons) in **COMPUTER SCIENCE** WITH A SPECIALISM IN **DATA ANALYTICS**

(P/481/6/0506)(06/24)(MOA/EA4622)

#### At a glance

LEVEL 1

#### Students will learn fundamental skills required by every IT professional, and the basic understanding of programming, mathematical and algorithmic skills. Some specialised modules will provide them basic knowledge of underlying computer systems such as Computer Architecture, operating systems, networking and databases. The modules will also help them

develop personal and organisational skills, as

well as nurture creativity and innovation.

A broader range of skills will be learnt, in which workplace.

#### INTERNSHIP

Students will undertake an Internship/Industrial Training for a minimum period of 16 weeks to prepare them for a smooth transition from the classroom to the working environment.

to produce a personal achievement portfolio.



#### Module outline

- Digital Thinking and Innovation
- Intercultural Awareness and Cultural Diversity
- Python Programming
- Operating Systems & Computer Architecture
- Introduction to Databases

#### Specialised Modules

- Introduction to Artificial Intelligence
- Introduction to C Programming

#### LEVEL 2

#### Object Oriented Development with Java

- System Development Methods
- Programming for Data Analysis
- Innovation Process
- Technology

- Data Structures
- Concurrent Programming
- Data Management
- Data Mining and Predictive Modelling
- Probability & Statistical Modelling

#### INTERNSHIP (16 weeks)

#### LEVEL 3

#### · Venture Building

Project Management

- Algorithmics
- Real Time Systems
- Text Analytics and Sentiment Analysis
- · Optimisation and Deep Learning
- · Investigations in Computer Science
- · Project in Computer Science

#### **MQA Compulsory Subjects\***

- (M'sian Students)
- Malay Communication Language (Int'l Students)
- Workplace Professional Skills
- Integrity and Anti-corruption

- Co-Curriculum
- \*All students are required to successfully complete these



#### **Duration**:

3 years full-time

#### This programme is specifically designed to provide students with:

- Technical knowledge, skills and background in the design and organisation of computer systems.
- The ability to critically evaluate design paradigms, languages, algorithms, and techniques used to develop complex software systems.
- The ability to evaluate and respond to opportunities for developing and exploiting new technologies

#### Career options

- Computer Engineer
- Systems Engineer
- Software Developer Programmer
- Chief Technology Officer (CTO)
- IT Technical Manager
- Technical Architect
- **Technical Support Manager**
- IT Service Desk Manager
- **Application Engineer**
- Mainframe Developer Software Architect
- Software Ouality Assurance
- Data Warehouse Manager
- Applications Development Manager **Applications Architect**

#### BSc (Hons) in **COMPUTER SCIENCE**

(P/481/6/0506)(06/24)(MOA/FA4622)

#### LEVEL 1

At a glance

#### Students will learn fundamental skills required by every IT professional, and the basic understanding of programming, mathematical and algorithmic skills. Some specialised modules will provide them basic knowledge of underlying computer systems such as Computer Architecture, operating systems, networking and databases. The modules will also help them

develop personal and organisational skills, as

well as nurture creativity and innovation.

#### LEVEL 2

A broader range of skills will be learnt, in which students will gain better understanding of designing and implementing new software, and solving new computing problems through theoretical and algorithmnic foundations They will gain solid understanding of platform technology through modules in application development. We will further nurture their creativity and innovation as well as independent learning to prepare them for the workplace.

#### INTERNSHIP

Students will undertake an Internship/Industrial Training for a minimum period of 16 weeks to prepare them for a smooth transition from the classroom to the working environment.

Students will make use of their previous studies and industrial experience to extend their familiarity in the field of computer science and to refine their personal and professional development. Students will move further into the development of advanced programming techniques and algorithms, interface design, networking, and/or multimedia. A final year project requires them to investigate and develop a solution for a real-world problem - they will demonstrate their ability to combine technical knowledge, critical thinking and analytical skills to produce a personal achievement portfolio

#### **MQA Compulsory Subjects\***

- · Appreciation of Ethics and Civilisation (M'sian Students)
- · Malay Communication Language (Int'l Students) · Philosophy and Current Issues
- · Workplace Professional Skills
- · Integrity and Anti-corruption · Co-Curriculum

(\*All students are required to successfully complete these modules as stipulated by the Malaysian Qualification Agency)

#### Module outline

LEVEL 1

#### Common Modules

- Digital Thinking and Innovation
- Intercultural Awareness and Cultural Diversity
- System Analysis & Design
- Programming with Python
- Mathematical Concepts for Computing
- Operating Systems & Computer Architecture
- Introduction to Networking
- Introduction to Databases Fundamental of Entrepreneurship

#### **Specialised Module**

- Introduction to Artificial Intelligence
- Introduction to C Programming

#### LEVEL 2

- Common Modules Object Oriented Development with Java
- System Development Methods
- Programming for Data Analysis
- Innovation Process Research Methods for Computing and Technology

#### **Specialised Modules**

- Computer Theory
- Data Structures
- Concurrent Programming
- System & Network Administration Computer Systems & Low Level Techniques

#### Elective Modules (Choose 2)

- Mobile & Wireless Technology **OR** System
- Programming & Computer Control Imaging & Special Effects OR Network Security

#### INTERNSHIP (16 weeks)

#### **Common Modules** Venture Building

- Project Management Specialised Modules
- Algorithmics
- Real-Time Systems
- Emergent Technology
- HCI & Usability · Investigations in Computer Science
- · Computer Science Project

#### **Elective Modules** (Choose 2)

Advanced Wireless Technology

Blockchain Development

- Distributed Computer Systems
- · Image Processing, Computer Vision & Pattern Recognition

- Designing & Developing Applications on Cloud · Wireless & Mobile Security
- · Optimisation and Deep Learning

Note: The specialism will appear only in the academic transcript.

students will gain better understanding of designing and implementing new software, and solving new computing problems through theoretical and algorithmnic foundations. They will gain solid understanding of platform technology and data analytics through modules in application development and knowledge discovery techniques. We will further nurture their creativity and innovation as well as independent learning to prepare them for the

#### LEVEL 3

Students will make use of their previous studies and industrial experience to extend their familiarity in the field of computer science and to refine their personal and professional development. Students will move further into the focus on advanced analytics through business analytics and intelligence modules. A final year project requires them to investigate and develop a solution for a real-world problem - they will demonstrate their ability to combine technical knowledge, critical thinking and analytical skills

APU and SAS have signed an MoA in partnership to develop Data Scientists in Malaysia. SAS also has endorsed the UG and PG level programmes in Data Analytics by providing tools and educational material support for learning and research purposes. All UG and PG Data Analytics graduates will received a Joint Professional Certificate from SAS

#### LEVEL 1

#### **Common Modules**

- System Analysis & Design
- Mathematical Concepts for Computing
- Introduction to Networking
- · Fundamental of Entrepreneurship

- **Common Modules**
- Research Methods for Computing and

#### Specialised Modules

- · Computing Theory
- Business Intelligence Systems

#### **Common Modules**

Specialised Modules

- Behavioral Science and Marketing Analytics
- Emergent Technology
- Database Security
- Appreciation of Ethics and Civilisation
- Philosophy and Current Issues

modules as stipulated by the Malaysian Qualification Agency)



/ 46 / COMPUTING, TECHNOLOGY, MULTIMEDIA & GAMES DEVELOPMENT

COMPUTING, TECHNOLOGY, MULTIMEDIA / 47 / & GAMES DEVELOPMENT



3 years full-time

This programme is specifically

designed to provide students with:

The ability to develop technical

the design and organisation of

The ability to critically evaluate

design paradigms, languages

perform advanced forensic

Digital Forensics Investigator

Computer Forensics Analyst

Intrusion Detection Analyst

Forensic Analytics Specialist

Secure Applications Engineer

Information Security Analyst /

Information Security Technical
Specialist

Chief Technology Officer (CTO)

Chief Information Security Officer

Note: The specialism will appear only in the academic transcript.

Software Developer

Forensic Compliance Investigator

Cyber Defense Forensics Analyst

Cyber Defense Incident Response

Ethical Hacker / Penetration Tester

on digital forensics.

**Career options** 

Engineer

(CISO)

knowledge, skills and background in

computer systems with an emphasis

algorithms, and techniques used to

investigation and incident response.

The ability to evaluate and respond

to opportunities for developing and exploiting new technologies with

digital forensics methods and tools.

#### BSc (Hons) in **COMPUTER SCIENCE** WITH A SPECIALISM IN **DIGITAL FORENSICS**

(P/481/6/0506)(06/24)(MOA/FA4622)

#### At a glance

#### LEVEL 1

Students will learn fundamental skills required by every IT professional, and the basic understanding of programming, mathematical and algorithmic skills. A sound grasp of mathematical techniques and skills in algorithmic thinking are important pre-requisites for their second and third year studies in this area. Computer Architecture, operating systems, networks, databases, security and forensic technologies are the underlying platform of digital forensics investigation. Introduction to management introduces the third key area, understanding personal and organisational development, along with independent learning and team working skills.

#### LEVEL 2

A broader range of skills will be learnt, in which students will be involved in designing and implementing software, devising new ways to use computers and developing effective ways to solve computing problems. It spans a wide range, from theoretical and algorithmic foundations to cutting edge developments in all areas of computing. Successful professionals with a degree in computer science are flexible in performing a range of computing tasks, and extend theories and practice in every area of computing. In the second year, the core modules take development skills to the next level and deepen the understanding of platform technology, while specialised modules will allow them to go further into advanced forensic methods, ethical hacking and incident response.

#### INTERNSHIP

Students will undertake an Internship/Industrial Training for a minimum period of 16 weeks to prepare them for a smooth transition from the classroom to the working environment.

#### I FVFI 3

Students will make use of their previous studies and industrial experience to extend their familiarity in the field of computer science and to refine their personal and professional development. Students will move further into the focus on advanced programming techniques and algorithms, and evaluating applications at the frontiers of current technology. Specialised modules allows them to extend the capabilities developed from previous studies of forensics methods and incident response specifically in the area of advanced cyber security, penetration testing, mobile forensics, deep learning for intrusion detection as well as legal and professional practice in the cyber world. A final year project requires them to investigate and develop a solution for a real-world problem - they will demonstrate their ability to combine technical knowledge, critical thinking and analytical skills to produce a personal achievement portfolio.

#### Module outline

Common Modules

#### LEVEL 1

#### Digital Thinking and Innovation

- Intercultural Awareness and Cultural Diversity System Analysis & Design
- Python Programming
- Mathematical Concepts for Computing
- Operating Systems & Computer Architecture
- Introduction to Networking
- Introduction to Databases
- Introduction to C Programming
- Fundamental of Entrepreneurship

#### **Specialised Module**

Introduction to Security and Forensic Technologies

#### LEVEL 2

#### **Common Modules**

- Programming for Data Analysis
- Innovation Process
- System Development Methods
- Object Oriented Development with Java
- Research Methods For Computing & Technology

#### **Specialised Modules**

- System & Network Administration
- Computing Theory
- Computer Systems & Low Level Techniques
- Advanced Forensic Methods
- Ethical Hacking & Incident Response
- Practical CTF Strategies

#### INTERNSHIP (16 weeks)

#### LEVEL 3

#### **Common Modules**

- Project Management
- · Emergent Technology
- Venture Building

#### **Specialised Modules**

- Algorithmics
- Advanced Cyber Security
- Penetration Testing
- Mobile Forensics
- Deep Learning for Intrusion Detection Legal & Professional Practice in Cyber World
- Investigations in Digital Forensics
- Project in Digital Forensics

#### MQA Compulsory Subjects\*

- Appreciation of Ethics and Civilisation (M'sian Students)
- Malay Communication Language (Int'l Students)
- Philosophy and Current Issues Workplace Professional Skills
- Integrity and Anti-corruption
- Co-Curriculum

(\*All students are required to successfully complete these modules as stipulated by the Malaysian Qualification Agency)



#### **Duration:**

3 years full-time

#### This programme is specifically designed to provide students with:

- The ability to develop technical knowledge, skills and background in the design and organisation of computer systems focusing on cyber
- The ability to critically evaluate design paradigms, languages, algorithms, and techniques used to develop complex software systems related to cyber security
- The ability to evaluate and respond to opportunities for developing and exploiting new technologies and applications in cyber security.

#### Career options

- Cyber Security Engineer/ Architect
- Cyber Security Consultant/Specialist
- Cyber Security Incident Response
- Security Operations Center (SOC)
- **Intrusion Detection Analyst**
- Cyber Threat Intelligence Advisor
- Ethical Hacker / Penetration Tester
- Secure Applications Engineer
- Information Security Analyst/ Engineer
- Information Security Technical Specialist
- Software Developer
- Cyber Security Governance & Compliance Manager
- Chief Technology Officer (CTO)
- Chief Information Security Officer



#### BSc (Hons) in **COMPUTER SCIENCE** (CYBER SECURITY)

(N/481/6/0816)(08/24)(MOA/PA12440)

#### LEVEL 1

At a glance

Students will learn fundamental skills required by every IT professional, and the basic understanding of programming, mathematical and algorithmic skills. A sound grasp of mathematical techniques and skills in algorithmic thinking are important pre-requisites for their second and third year studies in this area. Computer Architecture, operating systems, networks, databases, security and forensic technologies are the underlying platforms in cyber security. Introduction to management introduces the third key area, understanding personal and organisational development, along with independent learning and team working skills.

#### LEVEL 2

A broader range of skills will be learnt, in which students will gain better understanding in Cyber Security related areas. The students should be flexible in performing a range of computing tasks using extended theories and practice related to Cyber Security. In the second year, the core modules deepen the understanding of platform technology, while specialised modules allow them to go further into system & network administration, computing theory, computer systems & low level techniques and implementation of secure systems.

#### INTERNSHIP

Students will undertake an Internship/Industrial Training for a minimum period of 16 weeks to prepare them for a smooth transition from the classroom to the working environment.

Students will draw on their previous studies and industrial experience to refine their personal and professional development in the field of computer science majoring in Cyber Security. Students will move further into Cyber Security by learning the core and specialised modules to enhance new skills and advanced knowledge on the current and future technologies. Elective modules are offered to strengthen their essential skills and knowledge. A final year project requires them to investigate and develop a solution for a real world problem. They will demonstrate the ability to combine technical knowledge, critical thinking, and analytical skills to produce personal achievement portfolio.

#### **MQA Compulsory Subjects\***

- · Appreciation of Ethics and Civilisation (M'sian Students)
- Malay Communication Language (Int'l Students)
- · Philosophy and Current Issues
- · Workplace Professional Skills · Integrity and Anti-corruption
- · Co-Curriculum
- (\*All students are required to successfully complete these modules as stipulated by the Malaysian Qualification Agency)

#### Module outline

#### LEVEL 1 **Common Modules**

- Digital Thinking and Innovation
- Intercultural Awareness and Cultural Diversity
- System Analysis & Design
- Python Programming
- Mathematical Concepts for Computing
- Operating Systems & Computer Architecture
- Introduction to Networking
- Introduction to Databases
- Fundamental of Entrepreneurship

#### **Specialised Modules**

Introduction to Security and Forensic Technologies

#### **Elective Modules (Choose 1)**

- · Introduction to Object-Oriented Programming
- Introduction to C Programming

#### LEVEL 2

#### **Common Modules**

- Programming for Data Analysis
- System Development Methods
- Object Oriented Development with Java Data Structures
- Research Methods for Computing and
- Technology Innovation Process

#### **Specialised Modules**

- System & Network Administration
- Computing Theory
- Computer Systems & Low Level Techniques
- Implementation of Secure Systems
- Switching and Routing Essentials

#### Elective Modules (Choose 1)

- Human-Computer Interaction
- Web Applications · Practical CTF Strategies

#### INTERNSHIP (16 weeks)

#### LEVEL 3

#### Common Modules

- Project Management Venture Building
- **Specialised Modules**

Algorithmics Advanced Software Security

- Advanced Cyber Security · Vulnerability Assessment & Penetration
- Testing · Deep Learning for Intrusion Detection
- · Investigations in Cyber Security

#### Project in Cyber Security

**Elective Modules (Choose 2)** · Cloud Infrastructure & Services OR Internet of Things: Concepts & Applications

· Wireless & Mobile Security OR Database Security







3 years full-time

This programme is specifically

designed to provide students with:

systems that exploit artificial

language processing, etc.

artificial intelligence.

Robotics R&D Engineer

Backend Game Developer

Machine Learning Engineer

Deep Learning Scientist

Algorithm Specialist

Al Platform Architect

NLP Engineer

Machine Vision Engineer

Artificial Intelligence Analyst

Career options

The ability to design and develop

intelligence techniques such as

The ability to critically evaluate

design paradigms, languages,

machine learning, fuzzy logic, natural

algorithms, and techniques used to

develop complex software systems.

The ability to evaluate and respond

to opportunities for developing and exploiting new applications of

**Business Decision Support Engineer** 

Artificial Intelligence (AI) Engineer

Artificial Intelligence (AI) Specialist

#### Bachelor of Computer Science (Hons) (INTELLIGENT SYSTEMS)

#### BSc (Hons) in MULTIMEDIA TECHNOLOGY



(P/481/6/0505)(06/24)(MOA/FA4621)

#### At a glance

#### LEVEL 1

Students will learn fundamental skills required by every IT professional, and the basic understanding of artificial intelligence techniques and algorithmnic thinking. Some specialised modules will provide them basic knowledge of underlying computer systems such as Computer Architecture, operating systems, networks and databases. The modules will also help them develop personal and organisational skills, as well as nurture creativity and innovation.

#### LEVEL 2

the students will gain a better understanding of artificial intelligence techniques such as machine learning, fuzzy logic, and natural language processing. They will gain solid understanding of techniques used to develop complex software systems that include data acquisitions via various sensors. We will further nurture their creativity and innovation as well as independent learning to prepare them for the workplace.

#### INTERNSHIP

classroom to the working environment.

#### LEVEL 3

thinking and analytical skills to produce a personal achievement portfolio.

#### MQA Compulsory Subjects\*

- · Appreciation of Ethics and Civilisation (M'sian Students)
- · Malay Communication Language (Int'l Students)
- · Workplace Professional Skills
- · Integrity and Anti-corruption
- · Co-Curriculum

#### Module outline

- System Analysis & Design

- Operating Systems & Computer Architecture
- Introduction to Networking
- Fundamental of Entrepreneurship

Introduction to Artificial Intelligence

#### Elective Modules (Choose 1)

- Introduction to Object-Oriented Programming
- Introduction to C Programming

#### LEVEL 2

- · Object Oriented Development with Java
- System Development Methods
- Programming for Data Analysis
- Innovation Process
- Research Methods for Computing and Technology

#### Specialised Modules

- Al Methods
- Probability & Statistical Modeling
- **Human-Computer Interaction**
- Data Structures
- Imaging & Special Effects
- System Programming & Computer Control

#### **Elective Modules (Choose 1)**

- Mobile App Engineering
- Enterprise Internet of Things

#### INTERNSHIP (16 weeks)

#### LEVEL 3

#### **Common Modules**

- Venture Building
- **Applications**
- Project Management

#### **Specialised Modules**

- Further Artificial Intelligence
- Image Processing, Computer Vision & Pattern Recognition
- Knowledge Discovery and Big Data Analytics
- Intelligent Systems Project

#### Elective Modules (Choose 2)

- · Algorithmics OR Text Analytics & Sentiment Analysis
- Ubiquitous Computing **OR** Critical Issues in Managing IS in Organisations

#### **Duration:**

3 years full-time

#### This programme is specifically designed to provide students with:

- In depth knowledge of multimedia concepts, principles, and technologies.
- The knowledge and skills required to work in the multimedia industry as an author, animator, or modeller.
- The specific skills required to create 3D models and animation, digital music, video, and similar creative

#### Career options

- Multimedia Designer
- Animator
- Multimedia Content Designer
- Digital Media Specialist
- Video Editor
- Creative Director
- 2D/3D Graphic Designer
- Multimedia Artist
- Web Designer
- Graphic Designer Interface Designer
- Multimedia Producer
- Video Specialist

#### LEVEL 1

At a glance

(P2/213/6/0346)(04/26)(MOA/FA0364)

Students will learn fundamental skills required by technical multimedia professionals, and the basic understanding of programming and system design. Some specialised modules will provide them basic knowledge of multimedia techniques such as 3D graphics, digital image and more. The modules will also help them develop personal and organisational skills, as well as nurture creativity and innovation. On the other hand, an exciting delivery approach of multimedia content in virtual reality and augmented reality is highlighted in the Introduction to VRAR.

A broader range of skills will be learnt, in which students will gain a better understanding of wide range of multimedia applications through components, frameworks, guidelines and techniques in animation, audio and visual. We will further nurture their creativity and innovation as well as independent learning to prepare them for the workplace. Besides, the importance of copyright of digital content is mentioned in this level.

Students will undertake an Internship/Industrial Training for a minimum period of 16 weeks to prepare them for a smooth transition from the classroom to the working environment.

Students will make use of their previous studies and industrial experience to extend their familiarity in the field of multimedia technology and to refine their personal and professional development Students will move further into media scripting technology and more advanced multimedia development and techniques. Furthermore, you are required to learn and analyse the perceptions and feedback of your users for example socio-economic factor cultures and regional considerations in User Experience and HCI and Usability. A final year project requires them to investigate and develop a solution for a real-world problem - they will demonstrate their ability to combine technical knowledge, critical thinking and analytical skills to produce a personal achievement portfolio.

#### MQA Compulsory Subjects\*

- · Appreciation of Ethics and Civilisation (M'sian Students)
- · Malay Communication Language (Int'l Students) · Philosophy and Current Issues
- · Workplace Professional Skills
- · Integrity and Anti-corruption
- · Co-Curriculum
- (\*All students are required to successfully complete these modules as stipulated by the Malaysian Qualification Agency)

#### Module outline

#### LEVEL 1 **Common Modules**

- System Analysis & Design
- Programming with Python
- Mathematical Concepts for Computing
- Fundamental of Entrepreneurship

#### **Specialised Modules**

- Introduction to VRAR and Metaverse
- Web Design and Development
- Audio Visual Technology
- Introduction to Graphics & Basic 3D Applications
- Digital Image Production

#### **Elective Modules (Choose 2)**

- Intercultural Awareness and Cultural Diversity
- **OR** Digital Thinking and Innovation Introduction to Object-Oriented
- Programming **OR** Introduction to Visual Programming

#### LEVEL 2

#### **Common Modules**

- Programming for Data Analysis
- Innovation Process
- Research Methods for Computing and Technology

#### **Specialised Modules**

- Multimedia Applications
- Interactive Content Development
- Basic 3D Computer Character Modelling
- Digital Audio and Video
- Synthesiser Technology
- Principles of Creative Animation
- Intellectual Property, Ethics & Legal Issues

**Elective Modules (Choose 1)** Web Applications

Web Multimedia

Human Computer Interaction

#### INTERNSHIP (16 weeks)

#### LEVEL 3

- Common Modules Venture Building
- Project Management
- **Specialised Modules** · Advanced Multimedia
- HCI and Usability
- Advanced 3D Character Modelling and Animation
- · Multimedia Scripting
- Multimedia Techniques for Animation. Games & Films Effects
- User Experience Investigations in Multimedia Technology · Multimedia Technology Project

#### Flective Modules (Choose 1)

- Mobile and Web Multimedia
- · VRAR Design Project

COMPUTING, TECHNOLOGY, MULTIMEDIA / 51 /





A broader range of skills will be learnt, in which

Students will undertake an Internship/Industrial Training for a minimum period of 16 weeks to prepare them for a smooth transition from the

Students will make use of their previous studies and industrial experience to extend their familiarity in the field of intelligent systems and to refine their personal and professional development. Students will move further into artificial intelligence design paradigms and algorithms, programming techniques and statistical techniques applicable to artificial intelligence. A final year project requires them to investigate and develop a solution for a realworld problem - they will demonstrate their ability to combine technical knowledge, critical

- · Philosophy and Current Issues

(\*All students are required to successfully complete these modules as stipulated by the Malaysian Qualification Agency)

#### LEVEL 1

#### Common Modules

- Digital Thinking and Innovation
- Intercultural Awareness and Cultural Diversity
- Programming with Python
- Mathematical Concepts for Computing
- Introduction to Databases

#### **Specialised Module**

- **Common Modules**

- Enterprise Programming for Distributed
- **Emergent Technology**
- Investigations in Intelligent Systems









ASIA'S 1<sup>ST</sup> XR (META) STUDIO INFUSED WITH A BUILT-IN MIXED AND EXTENDED REALITY INFRASTRUCTURE

This programme by APU is designed to cater a vast spectrum of technologies: VR, AR, Mixed Reality (MR) and Extended Reality (XR). In 2020, APU established Malaysia's first XR (Meta) Studio among universities, in collaboration with our industry partner, Ministry XR. The APU XR Studio is a first-of-its-kind facility that comprises technologies capable of developing Augmented Reality (AR), Virtual Reality (VR) and Mixed Reality (MR) applications. Developed in partnership with Ministry XR Malaysia, the studio is equipped with a Volumetric Video Capture Station, EDEX Station and Mixed Reality Smart Glasses in the form of Microsoft HoloLens, Oculus Quest and HTC Vive.

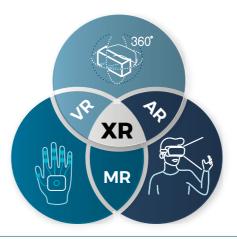






The equipment and the functionalities of the XR (Meta) Studio uplifts APU as a pioneer, game changer and trailblazer in education, research and project development within the Al domain.

#### VR. AR. MR & XR - Endless Possibilities for a Creative Future



"Extended Reality" (XR) describes a full spectrum of enhanced digital and physical experiences: augmented reality (AR), virtual reality (VR), and mixed reality (MR). It refers to all real-and-virtual combined environments and human-machine interactions generated by computer technology and wearables.

XR is gaining tremendous demand and due to the global Covid-19 pandemic, growth is expected to be exponential. XR technology is building its momentum across industries such as gaming, movie & entertainment, healthcare, retail and tourism, etc.

"The global augmented reality (AR), virtual reality (VR), and mixed reality (MR) market is forecast to reach 30.7 billion U.S. dollars in 2021, rising to close to 300 billion U.S. dollars by 2024." - Statista

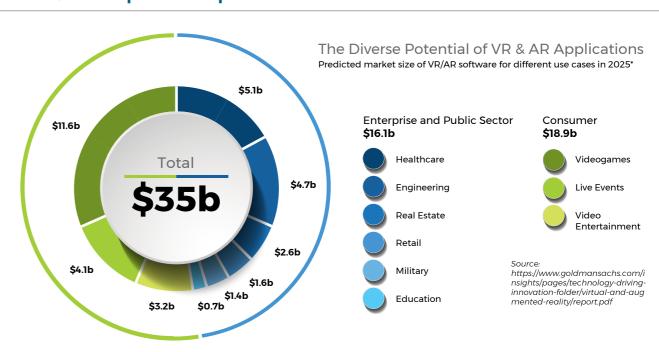
"The Asia Pacific region is estimated to record the Highest Growth Rate for the Extended Reality (XR) Market within 2019 - 2024." - Mordor Intelligence

"The Extended Reality (XR) Market is expected to Grow with Explosive CAGR(Compound Annual Growth Rate) of 48.3% between 2020 and 2030." - P&S Intelligence

"Leading global corporations, including Facebook, Google, Microsoft, Sony and Samsung, are already spending hundreds of millions of dollars on the development of both AR and VR. And the AR market alone is estimated to grow to \$61.39 billion by 2023." - Forbes

"VR and AR technology will benefit all industries by creating more efficient processes, enhancing training, and offering more ways for people to collaborate and work together." - Pricewaterhouse Coopers, PwC

#### **VR & AR - Rapid Development in Various Industries**





3 years full-time

Career options

Visual Developer

Motion Graphic Designer

VR Scenario Developer

VR Video Engineer

User Interface Developer (VR)

Multimedia Designer (Video Editing)

**Graphics and Multimedia Executive** 

Interactive Developer/Creative

Extended Reality(XR) Content

VR/AR Applications Engineer

Unity Developers (VR/AR/MR)

Multimedia Programme

VR/AR Web Developer

Meta Engineer

Meta Designer

Meta Consultant

This programme is specifically

concepts, principles and

designed to provide students with:

In depth knowledge of multimedia

The knowledge and skills required to

work in the multimedia industry as

The specific skills required to create

3D models and animation, digital music, video, and similar creative

an author, animator or modeller.

#### BSc (Hons) in MULTIMEDIA TECHNOLOGY WITH A SPECIALISM IN VR/AR

(P2/213/6/0346)(04/26)(MOA/FA0364

#### At a glance

Students will learn fundamental skills required by technical multimedia professionals, and the basic understanding of programming and system design. Some specialised modules will provide them basic knowledge of multimedia techniques such as 3D graphics, digital image and more. The modules will also help them develop personal and organisational skills, as well as nurture creativity and innovation. On the other hand, an exciting delivery approach of multimedia content in virtual reality and augmented reality is highlighted in the Introduction to VRAR.

#### I FVFI 2

A broader range of skills will be learnt, in which students will gain a better understanding of wide range of multimedia applications through components. frameworks, quidelines and techniques in animation, audio and visual. We will further nurture their creativity and innovation as well as independent learning to prepare them for the workplace. Besides, the importance of copyright of digital content is mentioned in this level. Moreover, you dive into the context of virtual reality (VR) and augmented reality (AR) with principles and technology of VR and AR used theoretically and practically in the market and projects.

#### INTERNSHIP

Students will undertake an Internship/Industrial Training for a minimum period of 16 weeks to prepare them for a smooth transition from the classroom to the working environment.

Students will make use of their previous studies and industrial experience to extend their familiarity in the field of multimedia technology and to refine their personal and professional development. Students will move further into media scripting technology and more advanced multimedia development and techniques. Furthermore, you are required to learn and analyse the perceptions and feedback of your users, for example, socio-economic factor, cultures and regional considerations in User Experience and HCI and Usability. In this year, you have an opportunity to develop the academic and practical aspects of your areas of study via student-project. Additionally, you will again equip yourself based on your area of studies such as the generation of virtual environment and superimpose of computer-generated images on a user's view of the real world.

#### **MQA Compulsory Subjects\***

- · Appreciation of Ethics and Civilisation (M'sian Students)
- · Malay Communication Language (Int'l Students)
- · Philosophy and Current Issues
- · Workplace Professional Skills
- Integrity and Anti-corruption
- · Co-Curriculum

(\*All students are required to successfully complete these modules as stipulated by the Malaysian Qualification Agency)

#### LEVEL 1

#### **Common Modules**

Module outline

- System Analysis & Design
- Programming with Python
- Mathematical Concepts for Computing Fundamental of Entrepreneurship
- **Specialised Module**
- Introduction to VRAR and Metaverse
- Web Design and Development
- Audio Visual Technology
- Introduction to Graphics & Basic 3D **Applications**
- Digital Image Production

#### **Elective Modules (Choose 2)**

- Intercultural Awareness and Cultural Diversity **OR** Digital Thinking and Innovation
- Introduction to Object-oriented Programming **OR** Introduction to Visual Programming

#### LEVEL 2

#### **Common Modules**

- · Programming for Data Analysis
- Innovation Process
- Research Methods for Computing and Technology

#### **Specialised Modules**

- Multimedia Applications
- Interactive Content Development
- Basic 3D Computer Character Modelling
- Digital Audio and Video
- · VRAR Design Principles
- · Advanced Virtual Reality Technology
- · Intellectual Property, Ethics & Legal Issues · Simulation, Visualisation and Virtual Reality

#### **Elective Modules (Choose 1)**

- Web Applications
- Human Computer Interaction

#### INTERNSHIP (16 weeks)

#### **Common Modules**

- Venture Building
- Project Management

#### **Specialised Modules**

- Stereoscopic Vision System
- **HCI** and Usability
- Advanced 3D Character Modelling and Animation
- Multimedia Scripting
- · VRAR Design Project
- · User Experience
- Investigations in Multimedia Technology
- · Multimedia Technology Project

#### **Elective Modules (Choose 1)**

- · Mobile and Web Multimedia
- Multimedia Techniques For Animation, Games & Film Effects



The BSc (Hons) in Computer Games Development programmes equip students with the necessary technical skills and knowledge needed for a professional within the computer games industry. Based on the statistical data provided by newzoo.com, an online market research company, it has been reported that in year 2014, there was a total of 81.5 billion dollar of revenue generated in the global games market. In Malaysia, there was 293 million dollars of revenue generated by the games industry. The significant development within the computer games industry has inspired us to incorporate elements of creativity and innovation within our programmes, not forgetting the values of professionalism and good communication skills.

Our Success Stories, Our Pride in the Computer Games industry



Wan Hazmer - Ex-Lead Game Designer of Final Fantasy XV, Square Enix and Founder, CEO and Game Director at Metronomik Sdn Bhd

Years before joining SQUARE ENIX Tokyo in 2010, Hazmer was a student in APIIT. He became a programmer in an advertising agency, then moved on to lecturing in APU while creating indie games on the side. In 2008, he took the great leap to Tokyo to join the Japanese game industry. After working on FINAL FANTASY TYPE-0 as a Game Designer, he now brings life to the exotic locales of FINAL FANTASY XV as Lead Game Designer of the Culture Team, mixing the real and fantastic to achieve new levels of immersive gameplay.

In December 2017, with aims to contribute to the Malaysian gaming industry scene, Hazmer returned to Malaysia and founded Metronomik Sdn Bhd. With his contribution, we anticipate the formation of a new realm of games development within the country.



Jussi Pekka Tuomi - Developer of Flail Rider and Super Flail Rider

Jussi graduated from the BSc (Hons) in Computer Games Development at APU. When he was a full-time student from Finland, Jussi is also the Developer of Flail Rider, a game inspired by his Ludum Dare project. To date, the game has been downloaded for more than 2 million copies on App Store and Google Play. In January 2017, Jussi participated the Taipei Game Show, in which he demonstrated his creation to over 400,000 computer games enthusiasts.



3 years full-time

#### This programme is specifically designed to provide students with:

- Knowledge, skills, and abilities required by a technical professional in the field of computer games.
- The ability to critically evaluate the design, logic, and implementation of computer games.
- Facility with advanced techniques for computer graphics and 3D digital animation

#### **Career options**

- Games Programmer
- Games Developer
- Games Quality Assurance Tester
- Technical Director
- Team Manager
- Mobile Game Developer
- Game Designer
- Level Editor
- Games Producer
- Gameplay Programmer
- Games Community Manager





#### BSc (Hons) in **COMPUTER GAMES DEVELOPMENT**

(P2/213/6/0245)(08/25)(A6216)

#### At a glance

Students will learn fundamental skills required by technical Games Development professionals, and the basic understanding of programming and systems design. Some specialised modules will provide them basic knowledge of interactive computer games development, such as logic design, graphics and more. The modules will also help them develop personal and organisational skills, as well as nurture creativity and innovation.

In-depth games analysis and design skills will be learnt, in which students will gain a better understanding of the complete computer games production lifecycle, that includes character modelling, special effects, computer graphics, animation, mathematics and more. We will further nurture their creativity and innovation as well as independent learning to prepare them for the workplace.

#### INTERNSHIP

Students will undertake an Internship/Industrial Training for a minimum period of 16 weeks to prepare them for a smooth transition from the classroom to the working environment.

Students will make use of their previous studies and industrial experience to extend their familiarity in the field of Computer Games Development and to refine their personal and professional development. Students will move further into advanced techniques for computer graphics and animation. A final year project requires them to investigate and develop a solution for a real-world problem - they will demonstrate their ability to combine technical knowledge, critical thinking and analytical skills to produce a personal achievement portfolio.

#### **MQA Compulsory Subjects\***

- · Appreciation of Ethics and Civilisation (M'sian Students)
- · Malay Communication Language (Int'l Students)
- · Philosophy and Current Issues
- · Workplace Professional Skills
- · Integrity and Anti-corruption
- · Co-Curriculum

(\*All students are required to successfully complete these odules as stipulated by the Malaysian Qualification Agency)

#### Module outline

#### LEVEL 1 **Common Modules**

- · System Analysis & Design
- Programming with Python
- Mathematical Concepts for Computing
- Fundamental of Entrepreneurship

#### **Specialised Module**

- Computer Games Design: Documentation
- Computer Games Level Design
- Introduction to Graphics & Basic 3D **Applications**
- Introduction to Scripting for 3D Applications · Digital Imaging Production

#### **Elective Modules (Choose 2)**

- Intercultural Awareness and Cultural Diversity
- **OR** Digital Thinking and Innovation Introduction to Object-oriented
- Programming **OR** Introduction to C Programming

#### LEVEL 2

#### Common Modules

- · Programming for Data Analysis
- Innovation Process
- Research Methods for Computing and Technology

#### Specialised Modules

- Analogue Games
- Basic 3D Computer Character Modelling
- Believable Models for Games & Virtual Reality · Computer Games Design: High Concept and Preproduction
- · Computer Games Design: Production and Testina
- Computer Graphics
- · Games Engines
- Imaging & Special Effects
- Mathematics for Computer Graphics

#### INTERNSHIP (16 weeks)

#### LEVEL 3

#### **Common Modules**

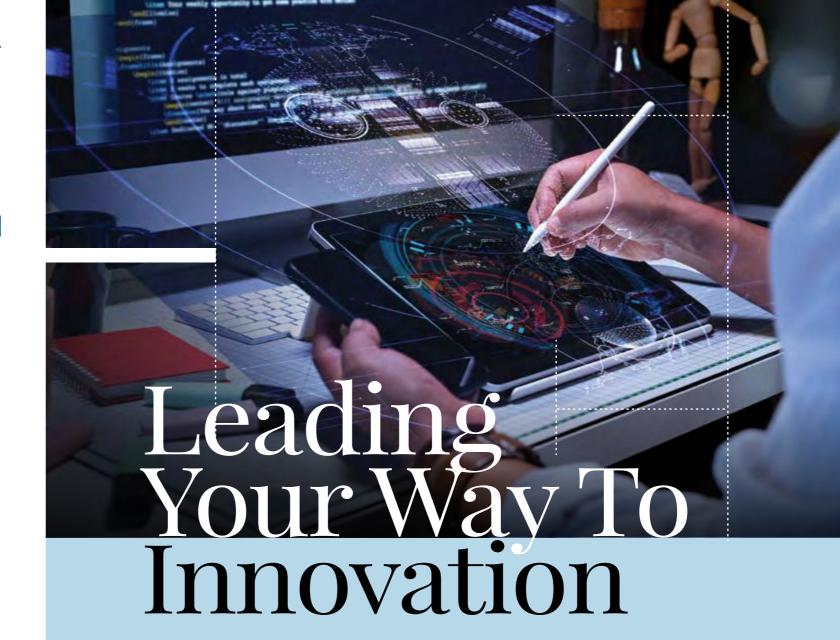
- · Venture Building
- · Project Management

#### **Specialised Modules**

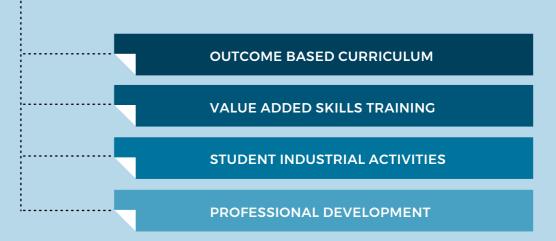
- 3D Computer Graphics
- Advanced 3D Character Modelling and Animation Audio For Computer Games
- Multimedia Techniques For Animation, Games & Film Effects Programming Techniques for Animation &
- Computer Games
- · Investigations in Computer Games Development
- Computer Games Development Project
- · HCI and Usability

#### Elective Modules (Choose 1)

 Mobile Multimedia and Gaming OR MMOG Services & Communities



APU'S SCHOOL OF COMPUTING & TECHNOLOGY. **OUR ULTIMATE FORMULA TO SUCCESS:** 



/ 56 / COMPUTING, TECHNOLOGY, MULTIMEDIA & GAMES DEVELOPMENT

#### **COMPUTING & TECHNOLOGY PROGRAMME STRENGTHS**

#### **Outcome Based Education**

Our curriculum is a collaborative effort, between our team of dedicated academicians and our credible 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.

The trend of our programme delivery is based on Outcome Based Education (OBE), in which high graduates' employability is our end result.



#### **Value-added Skills Training**

Apart from technical knowledge in the IT/Computing 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 winnings 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 the lives as an IT/Computing Professional, as well as to build connections with IT/Computing Professionals through regular industrial visits to Gaming Studios, Microsoft Academy and HILTI Asia Pacific Development Centre.









#### WONG MUN CHOONG, ALEXANDER (Malaysia)

Diploma in Information Technology (2010) BSc (Hons) in Computing with a specialism in Software Engineering, Class of 2012 Technical Manager - Standard Chartered Global Business Services

"I would describe these place as exciting and opportunistic. Every day, there are constantly new adventure to tried up, ranging from hackathon and competition that are constantly recommended by the professor or tutor in order to push our limit. In fact, what benefit me most is the encouragement and support provided by staff and tutor during the entire journey as an APIITian and prepped me in every challenge faced throughout career. What you learned in classroom will never be enough. Take the opportunity you have as student and challenge yourself to the limit. You will be surprise the amount of experience you will get from these."

#### **CHRISTOPHER PRATAMA** (Indonesia)

BSc (Hons) in Computer Science, Class of 2018 Solution Engineer - Oracle

"APU is a great university to attend. You can connect with people from all across the world. In APU, learning will not be just in the lecture hall since students are given chances to have hands-on experience in the industrial training. Graduating from APU gives you the edge when applying for a job and show people that you are more than just a student."

/ 58 / LEADING YOUR WAY TO INNOVATION

#### WHAT DO OUR ALUMNI SAY...

#### LIM KAI YUAN (Malaysia)

BSc (Hons) in Information Technology, Class of 2014 Software Engineer (DevOps) - zooplus, Germany

I am so glad that the lecturers in APU are helpful, especially one of the lecturers whom I met during my final year. Being knowledgeable and experienced in the Software industry as he was, yet he was still down to earth. He always inspires me to learn more and tell me that it is okay to say "I don't know" as long as you are willing to learn.

#### ADRI AHMAD BIN ADLAN (Malaysia)

BSc (Hons) in Computer Games Development, Class of 2014 Quality Assurance Artist - Lemon Sky

Studying in APU has been an unforgettable experience. I entered APU with such hopes of becoming a video game developer but what I got instead were something more than that. Throughout my years in APU, I did a lot of things. Being a librarian in the library, joined various Homestay events, became president for the APU Malay Cultural Society, co-founded an anime club called Manga, Anime and Games (M.A.G.) Club, join more fun events and so much more! I've encountered many people and hold many positions but those accumulated into a huge experience that I will never forget. So I would like to give a special thanks to the staff, the lecturers, my fellow course mates and classmates for making APU a great place to not only to acquire knowledge but also allows you to become someone better that you did not imagine before. I can say that not only I learn the fundamentals of video game development from the classes APU provides but I learn the fundamentals of life from the people I meet here in APU.

#### **BIBI JEHAAN NAAILAH GHASEETA (Mauritius)**

BSc (Hons) in Information Technology specialism in Forensic Computing, Class of 2016 Agile Coach - SWIFT Malaysia

APU has not only given me the chance to study what I wanted but it has also helped me develop the essential skills I needed to secure my dream job right after graduation! Studying and working alongside with people from all over the world was a knowledge-and-exposure enriching experience. My lecturers and other staffs were very friendly and helpful. The excellent study resources and facilities provided to us were top-notch and APU always encouraged me to think "outside-the-box" and opened my eyes into a whole new horizon. I was a also proud member of the Student Welcome Team and Student Ambassadors Team. The challenges that I went through in my student life being away from my family and beloved Mauritius had actually transformed me into the independent and responsible person that I am today. I am now working in the IT Security Team of an international company in Malaysia and I'm proud to say that I'm an APU Graduate!

#### **KEE HONG CHENG (Malaysia)**

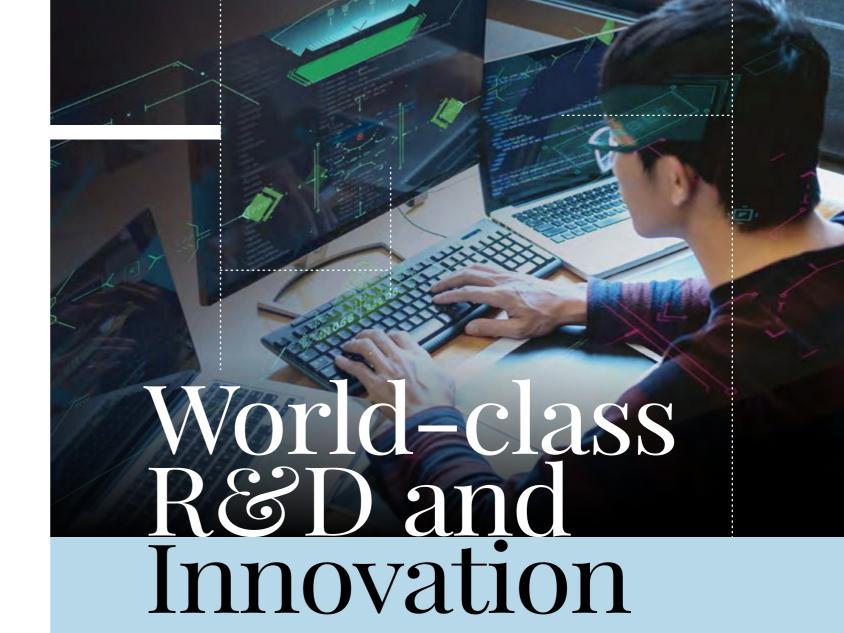
BSc (Hons) in Software Engineering, Class of 2014 MSc in Technology Management (2018) Lead Developer - Sitecore Malaysia Sdn Bhd

While I was studying at APU, the modules that I learnt gave me a strong foundation in programming and IT concepts. This has shaped my adaptability in multiple IT application development environments throughout my career. The formal dress code and strong emphasis on professionalism prepares me better for the working place, as I have become more confident in workplace communication.

#### PO STEFANIE ANDRIANTA (Indonesia)

BSc. (Hons) in Information Technology with specialization in Intelligent System, Class of 2010 Senior Software Engineer - Orchard Global Asset Management (S) Pte. Ltd., Singapore

I didn't have any problem finding a job after graduated and didn't have any difficulties adapting to the real job. APU has prepared me well for the 'real' world. Apart of the basic knowledge of programmings, they taught me leadership, communication, business, and teamwork. I would definitely recommend APU to anyone who is looking for the best IT / Computing programs.



#### **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:

- · Embedded Systems & RFID
- Biometrics
- Games Engines
- · 3D Graphics and Virtual Reality
- Security
- New Media Technologies
- · Knowledge Management
- Mobile Learning
- Wireless Networks and Internet of Things (IoT)
   Adding Facial Expressions to Talking Head Models
- Adding Facial Expressions to Talking Head Mi
- Two and Three Dimension Audio-Visual Speech Synthesis
- Handwritten Signature Verification Using a Single Master Signature

- Healthcare Informatics
- Gamification
- Sociotechnology
- Ram-Less Computers
- Deep LearningCyber Security
- Natural Language Processing
- Digital Forensics
- Image Processing
- Artificial intelligence

/ 60 / TESTIMONIALS

COMPUTING, TECHNOLOGY, MULTIMEDIA / 61 /

& GAMES DEVELOPMENT

#### INNOVATIVE INDUSTRY-BASED RESEARCH CENTRES @ APU

# Malaysia's First Integrated Cybersecurity Talent Zone









APU's Cybersecurity Talent Zone is a clear and perfect example of how APU collaborates closely with industry leading organisations to expose students to best-in-class technologies and systems. This Zone features a fully-functional Security Operations Centre (SOC) that allows students to have hands-on cybersecurity operations experience. APU's Cyber Security students are able to actively analyse occurrences of cyber-attacks and plan counteractive measures towards cyber threats through real-time data.

In addition, a full-fledged Cyber Threats Simulation and Response Centre (also known as a Cyber Range) is also located within the Cyber Security Talent Zone. The Cyber Range incorporates latest technologies and a military grade cyber-defense system that can simulate highly complex cyber-attacks in a hyper realistic environment, enabling students to understand and formulate defence strategies, and practice the entire chain of cyber defence, while preparing them to deal with real cyber threat attack when it happens. The Cyber Range is among the best-equipped facility of its kind across the Asia Pacific region

APU's CISCO Networking Academy, its Centre for Research and Development in IoT (CREDIT) and its Forensic and Security Research centre also make up the APU CyberSecurity Talent Zone, which is truly a unique, end-to-end integrated facility to provide hands-on experience to our students - the global cybersecurity, networking and IoT talents of the future.







#### 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 initiative4. 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.



#### **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.



#### Forensic and Cyber Security Research Centre (FSEC)

The establishment of Forensics & Cyber Security (FSec) center is to be a recognized Forensics and Cyber Security Research and Development Centre which acts as an international resource for government, industry and academia. This vision has kept us on the toe and with the closing of all cases including expert testimonies given by our dedicated analysts.



#### Centre for Innovation and Entrepreneurship (CIE)

The Centre provides resources for staff and student to innovation and entrepreneurship in a form of a sandbox; supports curricular and co-curricular programming, including workshops, networking events, speakers, talks and internship and start-up programs. Students have access to laboratory space, and other resources to meet their entrepreneurial needs.



#### Integrated Sustainability & Urban Creativity Centre (ISUC)

ISUC is committed to the mission of cultivating "sustainable shaping and innovating" leading us to be needed by the new era. The overall goal of the research centre is to establish an international, innovative, forward-looking and research-oriented world-class of think tank comprising of students and academic staff researchers with great sense of mission of the era, international perspective and native characteristics.



#### **APU 5G Research Lab**

The APU-5G research lab was established to serve as a platform for members from academia, business and industry to collaborate on 5G research to create market ready, innovative 5G technology solutions, applications and business ventures. The APU-5G research lab facilitates research at circuit, system and network level in 5G technologies and also is focused to the pathway for 6C technology to develop a powerful, faster, greener, sustainable network which will be



The research lab aims at exploring the cutting edge technologies such as SDN, NFV, mm/THz Wave Band, Radio Access, Massive MIMO, D2D Communication, Ultra Densification, IoT, Big Data, Mobile Computing and fusion of Al and ML for development of 5G core and Radio Access Network Infrastructure. The developed 5G Network Infrastructure will be a platform to develop and test a range of use cases of primary, secondary and tertiary industries and business that are built on communication infrastructure. The 5G lab in association with the other research centers of APU will facilitate research in 5G network security, Network Data Collection and Analysis for Smarter 5G/6GNetwork and Highspeed Sensor Networks for Autonomous Industry.

#### STUDENT ACADEMIC AND LEARNING SUPPORT

#### **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 and 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.

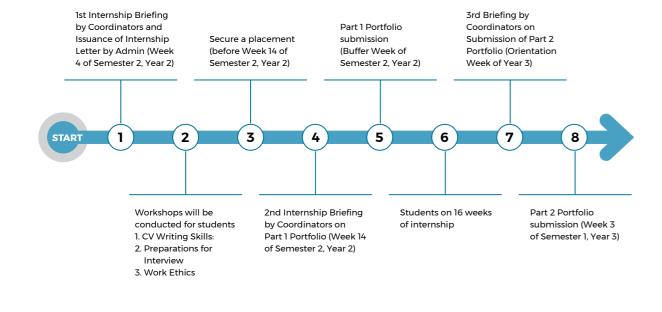
#### **Internships & Industrial Training**

Prior to starting the final year of study APU students will do internship or industrial training placements for 16 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.









# It's all going on ©APU Students from over 130 countries ★



























#### **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.

#### MDEC PREMIER DIGITAL TECH INSTITUTION AWARDS

2022 - PDTI Outstanding Faculty 2022

Best Faculty Member

#### ASIA PACIFIC ICT AWARDS (APICTA) MALAYSIA

2022 - Winner of 'Student-Tertiary Technology'

2020 - Winner of 'Best of Tertiary Student Project

2019 Winner of 'Best of Tertiary Student Project' Top Award for 'Best of Tertiary Student Project 2016

Top Award for 'Best of Tertiary Student Project'

Top Award for 'Best of Tertiary Student Project

Winner of 'Special Jury Award' by the Prime Minister

2011 Top Award for 'Best of Tertiary Student Project'

2011 Merit Award for 'Best of Tertiary Student Project'

2011 Merit Award for 'Best of Tertiary Student Project'

2010 Top Award for 'Best of Tertiary Student Project' Top Award for 'Best of e-Inclusion & e-Community' 2008

Top Award for 'Best of Applications & Infrastructure Tools'

2004 Top Award for 'Best of Education & Training'

Top Award for 'Best of Applications & Infrastructure Tools' 2004

2004 Merit Award for 'Best of Research & Development'

Merit Award for 'Best of Research & Development' 2003

Merit Award for 'Best of Smart Learning Applications 2002

Merit Award for 'Best of Smart Learning Applications'

Merit Award for 'Best of Smart Learning Applications 2000

2000 Top Award for 'Best of Student Projects'

Merit Award for 'Best of Student Projects'

#### INTERNATIONAL INVENTION, INNOVATION & TECHNOLOGY EXHIBITION (ITEX)

1 Gold Award for the Invention, Innovation and Technology category 2022

1 Gold Award for the Invention, Innovation and Technology category

2018 1 Bronze Award for the Invention, Innovation and Technology category

1 Silver Award for the Invention, Innovation and Technology category

2018 1 Silver Award for the Invention, Innovation and Technology category 2017 1 Silver Award for the Invention, Innovation and Technology category

1 Gold Award for the Invention, Innovation and Technology category

2016 1 Silver Award for the Invention, Innovation and Technology category

Best Green Invention Award 2016

2015 1 Gold Award for the Invention, Innovation and Technology category

1 Bronze Award for the Invention, Innovation and Technology category 2015

1 Gold Award for the Invention, Innovation and Technology category 2014

1 Bronze Award for the Invention, Innovation and Technology category 2014

2 Silver Medals for the Invention, Innovation and Technology category 2 Gold medals for the innovator category

#### MALAYSIA TECHLYMPICS: DATA SCIENCE CHALLENGE

2022 - Champion

#### CYBERSECURITY EXCELLENCE AWARDS

Gold Winner (Best CyberSecurity Education Provider in Asia) Gold Winner (Best CyberSecurity Education Provider in Asia)

Gold Winner (Best CyberSecurity Education Provider in Asia)

2019 Gold Winner (Best CyberSecurity Education Provider

#### INTERNATIONAL INNOVATION ARSVOT MALAYSIA (IAM)

2022 - Gold Award

Bronze Award 2022

/ 66 / AWARDS AND ACHIEVEMENTS

2021 Silver

#### INSTITUTE OF ENGINEERS MALAYSIA (IFM) AWARD

2022 Gold Award

2020 Gold Award

Gold Award

2017

2016 Gold Award

2014

#### FINAL YEAR PROJECT & POSTGRADUATE: RESEARCH & INNOVATION

Gold Award in the Category C1: Degree Final Year Proiect Science, Technology, Engineering and Mathematics

#### **ODYSSEY HACKFEST: ONLINE CATEGORY**

3 Special Jury Awards for best poster and best video, and 2 Lucky Winners

#### DATA MINING CUP

2022 - 1st Place

2022 - 3rd Place

#### INTEL & CREST INDUSTRY-UNIVERSITY CHALLENGE

#### IEM-INTEGRATED DESIGN PROJECT SHORT VIDEO COMPETITION

#### 2022 - 1st Place Winner

RHB GET YOUR HACK ON: DATA EDITION Winner of AWS Special Award

#### JAMES DYSON AWARD MALAYSIA

2022 - National Runner Up

2021 - National Champion

National Champion

#### INNOVATIVE RESEARCH, INVENTION AND APPLICATION EXHIBITION

2022 - Silver Awards

#### **BATTLE OF HACKERS (BOH)**

2022 - 1st Runner Up

3rd Runner Up

2021 Champion

2021 Top 6

2021 Top 7 2021 8 aoT

#### ASEAN MAKEITSAFE HACKATHON

2022 - 1st Runner Up

Gold Award

Gold Award

2015 Gold Award

Gold Award

#### POSTER COMPETITION (RIPC)

Gold Winner in the Category: Master Science, Technology

Engineering, and Mathematics

#### 4TH NATIONAL SYMPOSIUM ON HUMAN COMPUTER INTERACTION

**FUSION 2022: STUDENT DESIGN COMPETITION** 

- 1 Gold award, 3 Silver awards, 5 Bronze awards,

#### HILTI GLOBAL IT CHALLENGE

2022 - 2nd Runner Up

2021 - Champion

2020 - Champion

2020 - 1st Runner Up

SOCIETY OF PETROLEUM ENGINEERS (SPE) INTERNATIONAL 2022 - Society of Petroleum (SPE) Presidential Award for

Outstanding Student Chapter

THE IMECHE PLC DESIGN COMPETITION 2021

1st Runner Up (Degree Level)

on e-Learning (IIDEL) category

on e-Learning (IIDEL) category

INTERNATIONAL UNIVERSITY CARNIVAL ON E-LEARNING (IUCEL)

2022 - 2 Silver Awards for the Invention, Innovation and Design

2022 - 1 Bronze Awards for the Invention, Innovation and Design

Champion (Degree Level)

2021 - 1st Runner Up (Diploma Level)

SEAR PLC DESIGN COMPETITION

2022 - 1st Runner Up

2022 - 1st Runner Up

Gold

Silver

Gold

Silver

Gold

- Gold

Silver

COMPETITION

2021 - Silver

2021

2021

2021

2019

2019

2019

2018

2018

2018

#### 2021 - Student Chapter Excellence Award

EY ENTREPRENEUR OF THE YEAR MALAYSIA 2021 - EY Entrepreneur Of The Year 2021 Malaysia

#### THE AWS HACKATHON BUILD ON MALAYSIA

2021 - Champion

2021 - 1st Runner Up

2021 - 2nd Runner Up 2020 - Champion

Best Innovation Award

#### CISCO PACKET TRACER NATIONAL CHALLENGE

2021 - Champion

#### ASIA INTERNATIONAL INNOVATION EXHIBITION (AIINEX)

2021 - 2 Gold Awards + 2 Special Awards

#### THE VIRTUAL INNOVATION COMPETITION (VIC) AWARD

- 2 Gold Medal in the Category: Tertiary - Science & Technology 2021 - Best Video Special Award in the Category: Tertiary

Science & Technology

#### FUSION UX-HACKATHON

2021 - 1st Place & Gold Award

Silver Award 2021 Bronze Award

#### XYLEM REACH STUDENT HACKATHON 2021 - 1st Prize Winner

The APIIT Education Group received the prestigious Prime Minister's Industry Excellence Award from the Prime Minister of Malaysia. 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.

KARUNA HACKWND

#### DIVERSITY AND INCLUSION YOUTH CONFERENCE (DYIC) COVID-19 **BUSINESS STARTUP CHALLENGE** 2021 - Grand Prize

2021 - 1st Place & 3rd Place in the Mobile Application Category

APIIT Education Group is the proud recipient of

Prime Minister's Award

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

UPSI'S CONNECT 2021 - DESIGN 2 CONNECT E-POSTER COMPETITION

2nd Prize 3rd Prize

#### WORLD ENGINEERING, SCIENCE & TECHNOLOGY CONGRESS (ESTCON2020)

Winner of 'Best Paper Award' in the International Conference

on Production, Energy & Reliability (ICPER) category

#### IMECHE DESIGN SKILL COMPETITION

#### TUNKU ABDUL RAHMAN UNIVERSITY COLLEGE (TAR UC) CAPTURE-

THE-FLAG COMPETITION

2nd Runner Up

#### PENANG INTERNATIONAL INVENTION. INNOVATION AND DESIGN (PIID)

2021 -Gold

2021

#### MIFF FURNITURE DESIGN COMPETITION

2021 - Best Mentor Award

#### YOUNG EXCELLENCE AWARD (YEA)

2021 - Winner of the Young Excellence Award (YEA) 2021 under category Pandemic Leadership Award

#### SUSTAINABLE DEVELOPMENT GOALS (SDG) FILMFEST

Winner of 'Best Overall Film'

Winner of 'Dramatization or Re-Enactment Award 2021 Winner of 'Best Production Value Award

#### DIVERSITY AND INCLUSION YOUTH CONFERENCE (DYIC) COVID-19

**BUSINESS STARTUP CHALLENGE** - Grand Prize

#### MERDEKA AWARD PRESENTATION CEREMONY

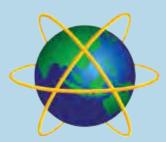
- Grantee of the Merdeka Award Grant for International

#### THE 3RD INTERNATIONAL ACADEMIC AND RESEARCH EXCELLENCE

- The Best Academician of the Year Award (Male) (Overseas)

For more awards listing, please visit APU website.







#### APIIT EDUCATION GROUP

Asia Pacific University of Technology & Innovation (APU) Company no. 672203-A Asia Pacific Institute of Information Technology (APIIT) Company no. 260744-W

(A Member of the APIIT Education Group)

Technology Park Malaysia, Bukit Jalil, 57000 Kuala Lumpur.

Tel: +603-8996 1000

Email: info@apu.edu.my | info@apiit.edu.my

DU030(W) | DK121(W)

www.apu.edu.my | www.apiit.edu.my