ENGINEERING & COMPUTING

- Prospectus 2025 -





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SunwayUniversity





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Nurturing the Seeds of Wisdom

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SUNWAY IS ONE OF THE TOP 150 UNIVERSITIES IN THE WORLD UNDER 50 YEARS OLD

As one of Malaysia's leading and internationally recognised private universities, Sunway University is positioned amongst top universities in the world by QS World University Rankings. Sunway University is ranked #1 private university in ASEAN region by AppliedHE ASEAN Private University Ranking 2025 and recognised as the #1 Malaysia's highest-ranked private nongovernment linked university in the Times Higher Education World University Rankings 2025. The University is also #539 in the QS World University Rankings 2025.

Sunway University has been awarded #1 in Graduate Employability among all universities in Malaysia, for the third consecutive year, by Talentbank Group through the National Graduate Employability Index.

The University has achieved a significant milestone by making its debut in the Academic Ranking of World Universities (ARWU) for 2024. This achievement places Sunway University among the top five universities in Malaysia, alongside the top four research-intensive public universities, and establishes it as the only private higher education institution in the country to be included in this prestigious global ranking.

Collaborating with world class partners -Lancaster University and Le Cordon Bleu International, Sunway University offers premier education with international repute. The University also partners University of Oxford, University of Cambridge, Harvard University, Massachusetts Institute of Technology and University of California, Berkeley.

MALAYSIA'S #1 NON-GLU* PRIVATE UNIVERSITY

as awarded by Times Higher Education



The Only Private University in Malaysia to be included in the Academic Ranking of World Universities (ARWU) 2024







INTRODUCTION

Industrial Revolution 4.0, Artificial Intelligence (AI), Internet of Things (IoT), electronics innovation, and the growth of new materials, chemicals and technological platforms have further propelled the demand for tech specialists and engineers. Pandemic of 2020 also highlighted the importance of innovation and technology advances, and the need for such skilled professionals.

The School of Engineering and Technology at Sunway University, Malaysia, stands as a beacon of innovation and academic excellence in the region. With a commitment to nurturing future ready engineers and technology leaders, our school offers a dynamic and inclusive learning environment that merges cutting-edge knowledge with practical skills. Our school comprises accomplished academics and industry experts dedicated to delivering top-tier education, fostering creativity and through state-of-the-art facilities and hands on learning experiences including electrical engineering, mechanical engineering, computer science and many more.

The only private
Malaysian university
with the highest
number of Top 2%
scientist in their
respective disciplines.

Stanford University List of Top 2% Scientist 2023 Recognised for its qualifications and commitment in offering top-notch digital technology degree programmes and generations of highly-skilled graduates for the industry.







Upon successful completion of the programme, graduates are awarded 2 certificates; one from Sunway University and another from Lancaster University.

VALIDATED BY:







TOWARDS RECOGNITION* BY BOARD OF ENGINEERS MALAYSIA (BEM)

Through BEM, Malaysia is a signatory to the Washington Accord (WA). Following the WA agreement on mutual recognition of engineering qualifications, graduates from BEM-accredited engineering programmes will be mutually recognised for professional registration and eligible to perform professional engineering services in countries such as the US, Canada, UK, Australia, New Zealand, Korea, China, Singapore, and more.





*Sunway University's Engineering programmes are provisionally accredited by the Board of Engineers Malaysia (BEM) and will be ready for full accreditation during its first cohort's final year.



ENTRY REQUIREMENTS

COMPUTING

PROGRAMME	ENTRY REQUIREMENTS	SPECIFIC REQUIREMENTS	ENGLISH REQUIREMENTS
BACHELOR OF SCIENCE (HONOURS) IN COMPUTER SCIENCE	STPM Average C or CGPA 2.00 (minimum 2 principals) A-Level Minimum 12 points (Minimum Grade D in at least 2 subjects) Australian Matriculation ATAR 60	Credit in Additional Mathematics at SPM B in Advanced Mathematics in UEC or its equivalent Candidates with the following qualifications or its equivalent: STPM (Arts Stream) STAM A-Level Matriculation or Foundation Diploma in Science and Technology	IELTS or equivalent 6.0 MUET Band 4 SPM English B+ UEC English Credit O-Level English
BACHELOR OF SOFTWARE ENGINEERING (HONS)	Canadian International Matriculation Programme 60% MUFY 60% Sunway Foundation in Arts CGPA 2.30 Sunway Foundation in Science & Technology CGPA 2.30	who do not have Additional Mathematics at SPM level or its equivalent may be admitted with a credit in Mathematics and any one of the Science, Technology or Engineering subjects at SPM level or its equivalent. Candidates need to enrol and pass a Mathematics Enhancement subject at the beginning of the study. The above requirements can be excluded if the Foundation / Matriculation programmes offered a Mathematics subject and the achievements are equivalent / higher than a requirement of a credit in Additional Mathematics at SPM level or equivalent.	(1119) Credit Sunway Intensive English Programme (IEP) Pass Level 4 with minimum 65% ESL/English Satisfactory level in Pre-University programmes, where the medium of instruction is English
BACHELOR OF INFORMATION SYSTEMS (HONOURS) (DATA ANALYTICS)	UEC Maximum 26 points from 5 subjects (all grade Bs) IB Diploma Completed with minimum 25 points (excluding bonus points) Sunway Diploma	Credit in Mathematics at SPM B in Mathematics in UEC or its equivalent A credit in Mathematics at SPM level or its equivalent will be required for the following qualifications and its equivalent:	Note: The following students will be exempted from the English Language requirement: Students from countries that use
BSC (HONS) INFORMATION TECHNOLOGY (COMPUTER NETWORKING AND SECURITY)	CGPA 2.50 or equivalent (Students entering Computer Science and Software Engineering from a diploma qualification must come from a diploma related to Science and Technology)	 STPM STAM A-Level Matriculation or Foundation Diploma programme that are not in Computing Candidates with only a pass in Mathematics will need to enrol and pass a Mathematics Enhancement subject at the beginning of study. 	English as the official language; OR Students with academic qualifications from institutions that use English as a
BACHELOR OF SCIENCE (HONOURS) IN INFORMATION TECHNOLOGY	Other Qualifications: Any other qualifications will be considered on a case-to-case basis	The above requirements can be excluded if the Foundation / Matriculation programmes offered a Mathematics subject and the achievements are equivalent / higher than a requirement of a credit in Mathematics at SPM level or equivalent.	full medium of instruction.

Note: For A-Level points calculation $A = 10 \ points \quad B = 8 \ points \quad C = 6 \ points \quad D = 4 \ points \quad E = 2 \ points$

INTAKES

FEBRUARY • APRIL • SEPTEMBER

DURATION

3 YEARS

ENTRY REQUIREMENTS

ENGINEERING

PROGRAMME	ENTRY REQUIREMENTS	SPECIFIC REQUIREMENTS	ENGLISH REQUIREMENTS	
BACHELOR OF CHEMICAL ENGINEERING WITH HONOURS	STPM CGPA 2.00 including Mathematics & one Natural Sciences subject (with minimum Grade C) A-Level Minimum 12 points for Mathematics & one Natural Sciences subject (with minimum Grade D)	Natural Sciences subjects are Physics, Biology or Chemistry. Chemistry will be given Preference. SPM or equivalent in Science stream will be given preference.	IELTS or equivalent 6.0 MUET Band 4	
BACHELOR OF ELECTRONIC ANDELECTRICAL ENGINEERING WITH HONOURS	Australian Matriculation ATAR 65 (including Mathematics Methods & one Natural Sciences subject) Canadian International Matriculation Programme 65% (including Advanced Functions, Calculus & Vectors and one Natural Sciences subject)		SPM English B+ UEC English B3 O-level English (1119) B3 Sunway Intensive English Programme	
BACHELOR OF MECHANICAL ENGINEERING WITH HONOURS	MUFY 65% (including Mathematics & one Natural Sciences subject) Sunway Foundation in Science & Technology CGPA 2.50 (including Mathematics and one Natural Sciences subject) UEC Maximum 24 points from 5 subjects	Natural Sciences subjects are Physics, Biology or Chemistry. Physics will be given Preference.	(IEP) Pass Level 4 with minimum 65% ESL/English Satisfactory level at Pre-University programmes with English as the medium of instruction.	
BACHELOR OF MECHATRONIC ENGINEERING (ROBOTICS) WITH HONOURS	(all grade Bs including Mathematics and one Natural Sciences subject) Diploma CGPA 2.50 from any diploma in Engineering, Science or Technology Matriculation/Foundation CGPA 2.50 (including Mathematics and one Natural Sciences subject)	SPM or equivalent in Science stream will be given preference.	Additional requirements For Malaysian students entering using an entry qualification whereby the medium of instruction is not in English, MQA requires the student to possess a MUET or international English	
BACHELOR OF CIVIL ENGINEERING WITH HONOURS	IB Diploma Completed with minimum 25 points (excluding bonus points)(including Mathematics and one Natural Sciences subject) Other Qualifications CGPA 2.50 or equivalent and any other qualifications will be considered on a case-to-case basis.		proficiency qualification in order to register for the Engineering programmes.	

Note: For A-Level points calculation $A = 10 \ points \quad B = 8 \ points \quad C = 6 \ points \quad D = 4 \ points \quad E = 2 \ points$

INTAKES

FEBRUARY • APRIL • SEPTEMBER

DURATION

4 YEARS

FIELDS IN COMPUTING

Programme



SPM / O-LEVEL

PRE-UNIVERSITY

- Sunway Foundation in Arts (FIA)
- Sunway Foundation in Science & Technology (FIST)
- Australian Matriculation (AUSMAT)
- Cambridge GCE A-Level
- Canadian International Matriculation Programme (CIMP)
- Monash University Foundation Year (MUFY)

STPM or equivalent

1/1.5 years

SUNWAY DIPLOMA

- Diploma in Information Technology
- Diploma in Computer Science [Pathway to Bachelor of Information Systems (Hons) (Data Analytics)]

2 years

AMERICAN DEGREE TRANSFER PROGRAM

2 years

US / CANADIAN UNIVERSITIES

2 years

Specialised Fields

Data Analytics	Computer Science	Software Engineering	Information Technology		Computer Networking & Security
Big Data & Cloud Big Data Analytics in the Cloud	Internet of Things (IoT) • Distributed Systems	Software Development Life Cycle • Requirement Engineering • Software Evolution & Maintenance • Software Testing	Customer Relationship Management		Hacking/ Forensic • Computer Hacking Forensic Investigator
Data Mining & Knowledge Discovery	Computational Intelligence	Cloud Comput	vork Management need Computer Networks Computer Networks and System Administration		
Information Systems • Business Intelligence Systems	Desktop/	Computer Security IoT Networking and Security			
Analytics & Statistics • Analytics Engineering • Social &Web Analytics • Statistics for Data Analytics		Computing Algorithms • Operating System Fundamentals			
Information Systems Analysis & Design		Ethical Hacking & Counter measures Fundamentals			
Artificial Intelligence					Cyber Security • Advanced Topics in Computer Security
Data Science Fundamentals • Information Systems Concepts • Linear Algebra & Applications					
Business & Entrepreneurship Digital Economy Startup Foundry Principles of Entrepreneurship					

BACHELOR OF SCIENCE (HONOURS) IN COMPUTER **SCIENCE**

PROGRAMME INTRODUCTION

The Computer Science programme was designed to produce innovators and creators of new computing systems as well as designing and developing various types of software such as systems infrastructure or application technologies.

The programme is developed in accordance to ACM-IEEE(CS) and MQA recommendations, while offering a comprehensive syllabus that enables graduates to thrive in the working world and be leaders in their own niches.

VALIDATED BY:





CAREER PROSPECTS

- Chief Technology Officer
- Game Developer
- IT Executive
- IT Project manager
- IT Technical Solutions Consultant
- Mobile App Developer
- Software Architect/ Software Engineer
- System Administrator
- System Designer
- System Engineer

Software Taught

- Akka
- Python
- Eclipse
- Repl.It
- Figma
- SBT

- Haskell
- Scala
- IntelliJ IDEA
- SQL
- Java
- Visual Studio
- Oracle DBMS
- Code

DISTINCTIVE SUNWAY EXPERIENCE

Students are exposed to latest Cloud technologies and principles so that they can be equipped with the fundamentals of Cloud computing via our industry partners such as AWS.



PROGRAMME STRUCTURE - Subjects

Year 1

- Computer Mathematics
- Computer Organisation
- Database Fundamentals
- English for Computer Technology Studies
- Networking Principles
- Object-Oriented Programming Fundamentals
- Operating Systems Fundamentals
- Programming Principles
- Web Fundamentals

Year 2

- Communication Skills
- Data Structures and Algorithms
- Entrepreneurial Mindset & Skills
- Free Electives (Choose 3)
- Object-Oriented Programming
- Software Engineering
- Discipline Electives (Choose 2)

Year 3

- Artificial Intelligence
- Capstone Project 1 & 2
- Distributed Systems
- Human Computer Interaction
- Internship
- Discipline Electives (Choose 3)

Data Science & Analytics

- Social & Web Analytics
- Data Mining & Knowledge Discovery Fundamentals

Advanced Artificial Intelligence

- Computer Vision
- Computational Intelligence

Software Solutions

- Database Management Systems
- Digital Image Processing
- Functional Programming Principles
- Concurrent Programming
- Database Engineering
- Mobile Application Development

Networking & Security

- Data Communications
- IoT Networking & Security
- Computer Networks
- Computer Security

Software Design

- Information Systems Analysis & Design
- Programming Languages
- Cloud Computing
- Software Architecture & Design Patterns
- UI/UX Design & Development

FREE ELECTIVES

Note: Electives offered are subject to change.

- Digital Economy
- Principles of Entrepreneurship
- Startup Foundry

MOHE COMPULSORY GENERAL STUDIES SUBJECTS

For Local Students:

- Appreciation of Ethics & Civilisation
- Bahasa Kebangsaan A (Applicable to students who did not sit for SPM or did not obtain a Credit in SPM Bahasa Melayu) / Critical Thinking
- Community Service for Planetary Health
- Integrity & Anti-Corruption
- Philosophy & Current Issues

For International Students:

- Appreciation of Ethics & Civilisation
- Community Service for Planetary Health
- Critical Thinking
- Integrity & Anti-Corruption
- Malay Language for Communication 2



BACHELOR OF INFORMATION SYSTEMS (HONOURS) (DATA ANALYTICS)

PROGRAMME INTRODUCTION

The Data Analytics programme focuses on the development of analytical skills in the study of technologies. Harnessing and analysing massive data creates significant value for organisations and it has become the basis for decision-making to achieve greater efficiency while spearheading constant innovation.

During their studies, students will solve practical and real-world problems of companies utilising data sets in the presence of analytics experts.

VALIDATED BY:





CAREER PROSPECTS

- Big Data System Architect
- Business Intelligence Manager/Specialist/ Architecture Consultant
- Chief Data Scientist
- Chief Knowledge Analyst
- Chief Social Media Scientist
- Credit Scorecard Specialist
- Customer Segmentation Specialists
- Forensic Experts

Software Taught

- Hadoop
- R
- Oracle DBMS
- SAS
- Power BI
- SQL
- Python
- Tableau

DISTINCTIVE SUNWAY EXPERIENCE

In this programme, students will be awarded a SAS Joint Certificate in Big Data with Advanced Techniques in Data Science and an academic digital badge to validate their knowledge. As one of the **Top 10 Most Prominent Data Science Institutes***, Sunway students learn innovative ways to use and leverage data to generate actionable outcomes across a variety of industries.

Python and R languages and the SAS tools are taught in the programme. The collaboration with AWS and Alibaba GET enhance & provide students a 360 degree view of analytics knowledge and skills.

*Analytics Insight Magazine (January 2022)













PROGRAMME STRUCTURE - Subjects

Business School

Year 1

Computer Organisation

Alibaba

- Data Mining & Knowledge Discovery Fundamentals
- Database Fundamentals
- English for Computer Technology Studies
- Information Systems Concepts
- Linear Algebra and Applications
- Networking Principles
- Operating System Fundamentals
- Programming Principles

Year 2

- Analytics Engineering
- Communication Skills
- Database Management Systems
- Enterprise Architecture
- Entrepreneurial Mindset & Skills
- Free Electives (Choose 2)
- Information Systems Analysis & Design
- Statistics for Data Analytics
- Social and Web Analytics

Year 3

- Advanced Business Analytics
- Artificial Intelligence
- Big Data Analytics in the Cloud
- Business Intelligence Systems
- Capstone Project 1 & 2
- Data Mining & Knowledge Discovery
- Free Electives (Choose 1)
- Internship
- Project Management

0/25

FREE ELECTIVES

Note: Electives offered are subject to change.

- Digital Economy
- Startup Foundry
- Principles of Entrepreneurship

MOHE COMPULSORY GENERAL STUDIES SUBJECTS

For Local students:

- Appreciation of Ethics & Civilisation
- Bahasa Kebangsaan A

 (Applicable to students who did not sit for SPM or did not obtain a Credit in SPM Bahasa Melayu) / Critical Thinking
- Community Service for Planetary
 Health
- Integrity & Anti-Corruption
- Philosophy & Current Issues

For International students:

- Appreciation of Ethics & Civilisation
- Community Service for Planetary Health
- Critical Thinking
- Integrity & Anti-Corruption
- Malay Language for Communication 2



BSC (HONS) INFORMATION TECHNOLOGY (COMPUTER NETWORKING AND SECURITY)

PROGRAMME INTRODUCTION

The Computer Networking and Security programme aims to equip students with technical competencies in exploring the technology behind computer networks and security systems.

This programme focuses on networking developments and distributed applications within the Internet, corporate networks and the information systems in which they interconnect. In terms of computer security, students will gain the ability to manage and develop computer systems and applications that enhance networking and security within organisations.

VALIDATED BY:





CAREER PROSPECTS

- Digital Forensic Investigator
- IT Security Consultant
- Network Engineer
- Network Infrastructure Specialist
- Penetration Tester
- Security Analyst
- Security Engineer

Software Taught

- Aircrack
- Autopsy
- Burp Suite
- Cisco Packet
- Maltego
- Android Studio Metasploit
 - Nmap

 - Netwitness
 - Sleuth Kit
 - Virtualisation Tracer
- FTK imager Software

DISTINCTIVE SUNWAY EXPERIENCE

Students in this programme will experience the latest techniques in IT security and developing critical threat-hunting expertise, developed in collaboration with world's leading cybersecurity organizations like Cisco, Fortinet and EC-Council.

Together with EC-Council, our students have the chance to obtain up to two professional certificates during their studies. Students may also choose to attend CCNA professional examination.











PROGRAMME STRUCTURE - Subjects

Year 1

- Computer Mathematics
- Computer Organisation
- Database Fundamentals
- English for Computer Technology Studies
- Networking Principles
- Object-Oriented Programming Fundamentals
- Operating Systems Fundamentals
- Programming Principles
- Web Fundamentals

Year 2

- Communication Skills
- Computer Networks
- Distributed Systems
- Entrepreneurial Mindset & Skills
- Free Electives (Choose 2)
- IoT Networking & Security
- Network & System Administration
- Network Security
- Probability & Statistics

Year 3

- Advanced Computer Networks
- Advanced Topics in Computer Security
- Capstone Project 1 & 2
- Computer Hacking Forensic Investigator
- Ethical Hacking & Countermeasures Fundamentals
- Free Electives (Choose 1)
- Human Computer Interaction
- Internship

FREE ELECTIVES

Note: Electives offered are subject to change.

- Digital Economy
- Principles of Entrepreneurship
- Startup Foundry

MOHE COMPULSORY GENERAL STUDIES SUBJECTS

For Local Students:

- Appreciation of Ethics & Civilisation
- Bahasa Kebangsaan A (Applicable to students who did not sit for SPM or did not obtain a Credit in SPM Bahasa Melayu) / Critical Thinking
- Community Service for Planetary Health
- Integrity & Anti-Corruption
- Philosophy & Current Issues

For International Students:

- Appreciation of Ethics & Civilisation
- Community Service for Planetary Health
- Critical Thinking
- Integrity & Anti-Corruption
- Malay Language for Communication 2



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BACHELOR OF SOFTWARE ENGINEERING (HONS)

PROGRAMME INTRODUCTION

The Software Engineering programme empowers students with the knowledge and understanding of user requirements in analysing, modelling, designing, and developing large-scale software systems that are reliable and robust. Such Software Engineering (SE) specialists will be able to respond to the evergrowing impact of large-scale software systems in a wide range of situations.

Furthermore, this programme will enable them to select the most appropriate and reliable techniques for producing quality software systems on time and within budget.

VALIDATED BY:





CAREER PROSPECTS

- Game Developer
- Mobile App Developer
- Requirement Engineer
- Software Architect
- Software Engineer
- Software Quality Assurance Officer
- Software Tester
- System Designer
- Technical Analyst
- Web Developer

Software Taught

- Android Studio
- Eclipse
- Repl.It
- Figma
- SBT
- Java
- SQI
- IntelliJ IDEA

- Scala
- Oracle DBMS Visual Studio • PHP
 - Code
- Python
- Web Servers

DISTINCTIVE SUNWAY EXPERIENCE

Together with Malaysian Software Testing Board (MSTB), member of International Software Testing Quality Board (ISTQB) and through their partnership with International Requirements Engineering Board (IREB), our students have the opportunity to obtain up to two professional certificates known as Certified Tester Foundation Level (CTFL) and Certified Professional in Requirements Engineering-Foundation Level (CPRE-FL) during their study. These industry-linked certificates will be an added advantage for our graduates, making them highly employable.

PROGRAMME STRUCTURE - Subjects

Year 1

- Computer Mathematics
- Computer Organisation
- Database Fundamentals
- English for Computer Technology Studies
- Networking Principles
- Object-Oriented Programming **Fundamentals**
- Operating Systems Fundamentals
- Programming Principles
- Web Fundamentals

Year 2

- Communication Skills
- Entrepreneurial Mindset & Skills
- Free Electives (Choose 3)
- Project Management
- Requirement Engineering
- Software Engineering
- Discipline Electives (Choose 2)

Year 3

- Capstone Project 1 & 2
- Computer Security
- Internship
- Software Architecture & Design
- Software Evolution & Maintenance
- Software Processes
- Software Testing
- Discipline Electives (Choose 3)

DISCIPLINE ELECTIVES

Software Development

- Object-Oriented Programming
- Code Camp
- Concurrent Programming
- Human Computer Interaction

Networking & Security

- Data Communication
- Network Security
- Advanced Network Security
- Computer Networks

Software Solutions & Design

- Database Management Systems
- Data Structures & Algorithms
- Digital Image Processing
- Cloud Computing
- Database Engineering

Artificial Intelligence

- Artificial Intelligence
- Computer Vision

Mobile App Development

Mobile Application Development

FREE ELECTIVES

Note: Electives offered are subject to change.

- Digital Economy
- Principles of Entrepreneurship
- Startup Foundry

MOHE COMPULSORY GENERAL STUDIES SUBJECTS

For Local Students:

- Appreciation of Ethics & Civilisation
- Bahasa Kebangsaan A (Applicable to students who did not sit for SPM or did not obtain a Credit in SPM Bahasa Melayu] / Critical Thinking
- Community Service for Planetary Health
- Integrity & Anti-Corruption
- Philosophy & Current Issues

For International Students:

- Appreciation of Ethics & Civilisation
- Community Service for Planetary Health
- Critical Thinking
- Integrity & Anti-Corruption
- Malay Language for Communication 2



BACHELOR OF SCIENCE (HONOURS) IN **INFORMATION TECHNOLOGY**

PROGRAMME INTRODUCTION

The Information Technology programme was designed to provide our graduates with strong analytical skills and the knowledge to keep abreast with the rapid advances in technology.

Students undertaking this programme are exposed to both technical and real-world practical experiences through the speciallycrafted coursework and industrial training, making our graduates market-ready upon graduation.

During their study, students may select electives to explore and enhance their knowledge in specific fields such as network management and security, database engineering and mobile development.

VALIDATED BY:





CAREER PROSPECTS

- Database Architect
- IT Specialist
- Network Specialist
- System Engineer
- Web/e-Commerce Architect

Software Taught

- Android Studio
- Javascript
- Cisco Packet Tracer
- Oracle DBMS
- CSS
- PHP
- Eclipse • Figma
- Python
- Repl.It
- HTML
- Scala
- Java

DISTINCTIVE SUNWAY EXPERIENCE

This programme will give the students a good mix of knowledge in both software and hardware. With the knowledge from both sides, the students will be equipped with the skills required to develop an organisation's technology infrastructure and support the people who use it.

Students are exposed to latest Cloud technologies and principles so that they can be equipped with the fundamentals of Cloud computing via our industry partners such as AWS.



PROGRAMME STRUCTURE - Subjects

Year 1

- Computer Mathematics
- Computer Organisation
- Database Fundamentals
- English for Computer Technology Studies
- Networking Principles
- Object-Oriented Programming **Fundamentals**
- Operating Systems Fundamentals
- Programming Principles
- Web Fundamentals

Year 2

- Communication Skills
- Computer Networks
- Entrepreneurial Mindset & Skills
- Free Electives (Choose 2)
- Project Management
- Software Engineering
- Web Programming
- Discipline Elective (Choose 2)

Year 3

- Capstone Project 1 & 2
- Cloud Computing
- Free Electives (Choose 1)
- Human Computer Interaction
- Internship
- Discipline Electives (Choose 3)

DISCIPLINE ELECTIVES

Software Development and Design

- Database Management Systems
- Data Structures and Algorithms
- Object-Oriented Programming
- **Database Engineering**
- Mobile Application Development
- UI/UX Design and Development
- Software Architecture and Design **Patterns**

■ IoT Networking & Security Advanced Computer Networks Advanced Network Security

Network Security

Networking & Security

Data Communications

- Computer Security Distributed Systems
- Network & System Administration
- Network Management

Business Solutions & Al

- Customer Relationship Management
- Enterprise Application Development
- Artificial Intelligence

Data Science

- Data Mining and Knowledge Discovery Fundamentals
- Big Data Analytics in the Cloud

FREE ELECTIVES

Note: Electives offered are subject to change.

- Digital Economy
- Principles of Entrepreneurship
- Startup Foundry

MOHE COMPULSORY GENERAL STUDIES SUBJECTS

For Local Students:

- Appreciation of Ethics & Civilisation
- Bahasa Kebangsaan A (Applicable to students who did not sit for SPM or did not obtain a Credit in SPM Bahasa Melayu) / Critical Thinking
- Community Service for Planetary Health
- Integrity & Anti-Corruption
- Philosophy & Current Issues

For International Students:

- Appreciation of Ethics & Civilisation
- Community Service for Planetary Health
- Critical Thinking
- Integrity & Anti-Corruption
- Malay Language for Communication 2



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ENGINEERING

Areas embedded across Engineering programmes at Sunway:



AI & Data Analytics



Industry 4.0



Environment & Sustainability



Communication & Entrepreneurship



FIELDS IN ENGINEERING



Programme	Electronic & Electrical Engineering	Mechatronic Engineering (Robotics)	Mechanical Engineering	Chemical Engineering	Civil Engineering		
	Artificial Intelligence & Data Analytics						
	Engineering Design & Project Management with Sustainability						
	Programming						
	Electronio	c Systems	Materials				
	Computer Architecture & Systems			Environmental Engineering			
	Telecommunio	eation Systems	Thermody	Construction			
	Digital Signa	ls & Systems	Fluid Me	Technology			
Specialised Fields		Instrumentati	ons & Control	Structural			
	Embedde	d Systems	Automotive	Chemical	Design		
	Digital Image & \	/ideo Processing	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Process Design	Geotechnical & Geological Studies		
	Advanced Digital System		ided Design lations	Chemical Reactions			
	Design	Robotics & Industrial Automation	Renewable Ene	le Energy Generation			
	Wireless Sensor Networks	Computer Model	ing & 3D Printing	Separation Technology	Transportation Engineering		
	Electrical Power & Drive Systems	Actua	ations	Chemical Plant Design			
	Industry 4.0			Water Management			

BACHELOR OF CHEMICAL ENGINEERING WITH HONOURS

PROGRAMME INTRODUCTION

Chemical Engineering is a discipline dealing with creating, developing and designing processes to produce, transform or transport products and materials. It combines the knowledge of natural, experimental and life sciences as well as aspects of maths and economics to investigate problems and design solutions for issues such as safety, efficiency and sustainability. Chemical Engineers pioneer new materials and technologies of the future; they design equipment for chemical manufacturing, develop and manage industrial processes that turn raw materials into the most useful products.

Chemical engineers solve major societal challenges in energy, human health, manufacturing and sustainability. They use the knowledge of material and energy balances, heat and mass transfer, thermodynamics, fluid mechanics, separations technologies, chemical reaction kinetics, reactor design, and process design to create sustainable manufacturing processes, robust chemical plants and safe equipment design.

This programme is recognised as equivalent to that of the Lancaster University's MASTER OF ENGINEERING CHEMICAL ENGINEERING WITH HONOURS (MEng Hons). Upon successfully completing the programme, graduates will also be awarded the MEng Hons degree from Lancaster University. They will be awarded two certificates, making them graduates of both Sunway University and Lancaster University.

VALIDATED BY:



PROGRAMME STRUCTURE - Subjects

Year 1

- Chemical Process Calculations
- Communication Skills
- Design & Innovative Thinking
- Engineering Mathematics 1
- Engineering Materials
- Engineering Mathematics 2
- Fluid Mechanics
- Organic Chemistry
- Physical Chemistry
- Sustainable Engineering Design

Year 2

- Advanced Engineering Calculus
- Chemical Engineering Laboratory 1
- Chemical Engineering Thermodynamics
- Engineering Statistics & Probability
- Engineers in Society
- Entrepreneurial Mindset & Skills
- Heat Transfer
- Mass Transfer & Separation Processes
- Numerical Methods for Chemical Engineers
- Plant Design & Process Synthesis
- Project Management & Engineering Design

Year 3

- Chemical Engineering Laboratory 2
- Chemical Engineering Laboratory 3
- Chemical Process Safety
- Chemical Reaction Engineering
- Data Analytics for Engineers
- Design Project 1
- Industrial Training
- Multiphase System
- Process Dynamics & Control
- Reactor Design & Analysis
- Transport Phenomena

Year 4

- Advanced Biochemical Engineering
- Advanced Electrochemical Engineering
- Advanced Process Control
- Advanced Wastewater Engineering
- Design Project 2
- Final Year Project 1
- Final Year Project 2

Year 4 Electives (Choose 2)

- Carbon Capture & Storage
- Environment & Climate Change
- Nanomaterials & Nanotechnology
- Petroleum Refining & Gas Processing

MOHE COMPULSORY GENERAL STUDIES SUBJECTS

For Local Students:

- Appreciation of Ethics & Civilisation
- Bahasa Kebangsaan A
 (Applicable to students who did not sit for
 SPM or did not obtain a Credit in SPM
 Bahasa Melayu) / Critical Thinking
- Community Service for Planetary Health
- Integrity & Anti-Corruption
- Philosophy & Current Issues

For International Students:

- Appreciation of Ethics & Civilisation
- Community Service for Planetary Health
- Critical Thinking
- Integrity & Anti-Corruption
- Malay Language for Communication 2





CAREER PROSPECTS

- Chemical Data Analyst
- Design Engineer
- Environmental Engineer
- Material Engineer
- Petroleum Process Engineer
- Product Development Scientist
- Process Engineer
- Production Engineer



BACHELOR OF ELECTRONIC AND ELECTRICAL ENGINEERING WITH HONOURS

PROGRAMME INTRODUCTION

Electronic and Electrical Engineering specialises on electrical and electronic equipment, interfaces and communications. Electrical engineering tends to focus on larger scale electrical equipment and power, whilst electronic engineering is more focused on electronic circuits and devices, computer and communication systems. It gives a fascinating insight into how electrical devices and technology work and in a future that will likely be full of new electric technologies.

The programme gives students a strong technical knowledge in a variety of areas, which include electronics, signal processing, power engineering, computer and communication systems and engineering management. Alongside the theories, students also learn through hands-on practical exposure to ensure that they are prepared for engineering work upon graduation.

This programme is recognised as equivalent to that of the Lancaster University's MASTER OF ENGINEERING ELECTRONIC AND ELECTRICAL ENGINEERING WITH HONOURS (MEng Hons). Upon successfully completing the programme, graduates will also be awarded the MEng Hons degree from Lancaster University. They will be awarded two certificates, making them graduates of both Sunway University and Lancaster University.

VALIDATED BY:



PROGRAMME STRUCTURE - Subjects

Year 1

- Analogue Electronic Fundamentals
- Digital Electronic Fundamentals
- Electrical Circuits
- Engineering Materials
- Engineering Mathematics 1
- Engineering Mathematics 2
- Engineering Physics
- Instrumentation, Measurement, & Controls
- Programming for Engineers

Year 2

- Advanced Engineering Calculus
- Artificial Intelligence
- Control Systems
- Communication Skills
- Communication Systems
- Electrical Power Systems
- Electronic Systems
- Engineering Electromagnetics
- Engineering Mathematics 3
- Engineers in Society
- Entrepreneurial Mindset & Skills
- Microprocessor Systems
- Project Management & Engineering Design
- Signals & Systems
- Sustainable Engineering Design

Year 3

- Advanced Digital Design
- Artificial Intelligence for Engineering Applications
- Computer Networks
- Data Analytics for Engineers
- Digital Image & Video Processing
- Digital Signal Processing
- Electrical Machines
- Integrated Design Project 1
- Integrated Design Project 2
- Numerical Methods for Engineers
- Power Electronics & Drivers

Year 4

- Advanced Computer Architecture
- Engineering Design for Industrial Revolution 4.0
- Industrial Training
- Final Year Project 1
- Final Year Project 2
- Networked Embedded Systems
- Wireless & Optical Communications

MOHE COMPULSORY GENERAL STUDIES SUBJECTS

For Local Students:

- Appreciation of Ethics & Civilisation
- Bahasa Kebangsaan A
 (Applicable to students who did not sit for
 SPM or did not obtain a Credit in SPM
 Bahasa Melayu) / Critical Thinking
- Community Service for Planetary Health
- Integrity & Anti-Corruption
- Philosophy & Current Issues

For International Students:

- Appreciation of Ethics & Civilisation
- Community Service for Planetary Health
- Critical Thinking
- Integrity & Anti-Corruption
- Malay Language for Communication 2





- Communication Engineer
- Computer Engineer
- Control Engineer
- Design Engineer
- Electrical Engineer
- Electronic Engineer
- Engineering Consultant
- Hi-tech Entrepreneur
- Product Development Engineer
- Robotics Engineer



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BACHELOR OF MECHANICAL ENGINEERING WITH HONOURS

PROGRAMME INTRODUCTION

The Mechanical Engineering programme is a modern, project-based degree which aims to produce graduates who address the Grand Challenges for Engineering and the UNSDG's.

As a project-based degree, our students will Conceive-Design-Implement-Operate at least 4 engineering systems (or projects) throughout their degree, with at least 2 of such projects being based in real-life industry challenges.

Their projects will address the Grand Challenges and the UNSDG's. To assist them, students will also be taught to meaningfully use current Industry 4.0 tools and softwares such as 3D Printing, Computational Fluid Dynamics and Finite Flement Method.

This programme is recognised as equivalent to that of the Lancaster University's MASTER OF ENGINEERING MECHANICAL ENGINEERING WITH HONOURS (MEng Hons). Upon successfully completing the programme, graduates will also be awarded the MEng Hons degree from Lancaster University. They will be awarded two certificates, making them graduates of both Sunway University and Lancaster University.

VALIDATED BY:



PROGRAMME STRUCTURE - Subjects

Year 1

- Communication Skills
- Engineering Materials
- Engineering Mathematics 1
- Engineering Mathematics 2
- Engineering Physics
- Engineers in Society
- Programming for Engineers
- Sustainable Engineering Design

Year 2

- Advanced Engineering Calculus
- Computer Modelling & 3D Printing
- Dynamics
- Electrical Power Systems
- Engineering Mathematics 3
- Entrepreneurial Mindset & Skills
- Fluid Mechanics
- Project Management & Engineering Design
- Statics
- Thermodynamics & Heat Transfer

Year 3

- Advanced Fluid Mechanics
- Advanced Thermodynamics & Heat Transfer
- Instrumentation, Measurement, & Controls
- Manufacturing Processes
- Microprocessor Systems
- Numerical Analysis & Simulation Tools in Engineering Design
- Solid Mechanics
- Vibrations

Year 4

- Final Year Project 1
- Final Year Project 2
- Industrial Training
- Mechanical Engineering Group Project 1
- Mechanical Engineering Group Project 2

Year 4 Electives (Choose 5)

- Artificial Intelligence for Engineering Applications
- Transportation Engineering
- Nanomaterials and Nanotechnology
- Environment and Climate Change
- Signals and Systems
- Robotics Project
- Principles of Enterpreneurship
- Startup Foundry

MOHE COMPULSORY GENERAL STUDIES SUBJECTS

For Local Students:

- Appreciation of Ethics & Civilisation
- Bahasa Kebangsaan A
 (Applicable to students who did not sit for
 SPM or did not obtain a Credit in SPM
 Bahasa Melayu) / Critical Thinking
- Community Service for Planetary
 Health
- Integrity & Anti-Corruption
- Philosophy & Current Issues

For International Students:

- Appreciation of Ethics & Civilisation
- Community Service for Planetary Health
- Critical Thinking
- Integrity & Anti-Corruption
- Malay Language for Communication 2





CAREER PROSPECTS

- Automotive Engineer
- Automation Engineer
- CAD/CAM Engineer
- Design Engineer
- Manufacturing Engineer
- Materials Engineer
- Mechanical Engineer
- Project Engineer
- Robotic Engineer
- Systems Engineer



BACHELOR OF MECHATRONIC ENGINEERING (ROBOTICS) WITH HONOURS*

PROGRAMME INTRODUCTION

Mechatronic Engineering (Robotics) programme focuses on the integration of mechanical, electronic and computer control, which addresses the engineering needs of Industry 4.0. This programme is also structured for specialisation in robotics engineering.

The programme prepares graduates to be ready for the future workforce with strong focus on Artificial Intelligence and Industrial Automation. Throughout the programme, emphasis on sustainability and real-world learning is achieved through incorporation of industry-related and UN SDG- related project-based learning. Students explore sustainable solutions to real-world problems by employing technologies such as AI, Data Analytics, Industrial Automation, Robotics and Internet-of-Things.

This programme is supported by laboratory facilities that are developed with industry partnerships i.e. the Collaborative Robots and Industrial Automation Laboratory and Mobile Robotics Laboratory.

VALIDATED BY:*



*Subject to approval

CAREER PROSPECTS

- Automation Engineer
- Construction M&E Engineer
- Electronic Engineer
- Field Service Engineer
- Instrumentation Engineer
- Mechanical Design Engineer
- Mechatronics Project Engineer
- Product Engineer
- Project Engineer
- Researcher
- · Robotics Engineer

PROGRAMME STRUCTURE - Subjects

Year 1

- Analogue Electronic Fundamentals
- Communication Skills
- Digital Electronic Fundamentals
- Electrical Circuits
- Engineering Mathematics 1
- Engineering Mathematics 2
- Engineering Physics
- Engineering Materials
- Instrumentation, Measurement, & Controls
- Programming for Engineers

Year 2

- Actuators & Drives for Robotics Applications
- Artificial Intelligence
- Control Systems
- Interfacing & Integration
- Machine Elements
- Entrepreneurial Mindset & Skills
- Engineering Mathematics 3
- Robotics Project
- Statics
- Sustainable Engineering Design

Year 3

- Artificial Intelligence for Engineering Applications
- Computer Modelling & 3D Printing
- Data Analytics for Engineers
- Digital Image & Video Processing
- Electrical Power Systems
- Engineers in Society
- Industrial Automation Systems
- Dynamics
- Mechatronic Design Project 1
- Microprocessor Systems
- Numerical Analysis & Simulation Tools in Engineering Design
- Project Management & Engineering Design

Year 4

- Cyber-Physical Production Systems
- Final Year Project 1
- Final Year Project 2
- Industrial Training
- Mechatronic Design Project 2
- Robotics Systems

Year 4 Electives (Choose 2)

- Advanced Computer Architecture
- Digital Signal Processing
- Communication Systems
- Computer Networks

MOHE COMPULSORY GENERAL STUDIES SUBJECTS

For Local Students:

- Appreciation of Ethics & Civilisation
- Bahasa Kebangsaan A
 (Applicable to students who did not sit for
 SPM or did not obtain a Credit in SPM
 Bahasa Melayu) / Critical Thinking
- Community Service for Planetary
 Health
- Integrity & Anti-Corruption
- Philosophy & Current Issues

For International Students:

- Appreciation of Ethics & Civilisation
- Community Service for Planetary Health
- Critical Thinking
- Integrity & Anti-Corruption
- Malay Language for Communication 2





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BACHELOR OF CIVIL ENGINEERING WITH HONOURS

PROGRAMME INTRODUCTION

Civil Engineering programme equips students with a robust foundation in civil engineering principles, emphasizing sustainability and the integration of Artificial Intelligence (AI) to address modern engineering challenges. The programme offers a comprehensive curriculum that combines core civil engineering subjects with cutting-edge topics in sustainability and AI, preparing graduates to lead in innovative and eco-friendly infrastructure development.

The programme places a strong emphasis on sustainable practices, integrating courses such as Sustainable Engineering Design and Sustainable Digital Construction Technology. A key feature of the programme is its focus on Al. Courses such as Data Analytics for Engineers and Al in Civil Engineering utilise Al technologies to optimise designs, predict maintenance needs, and enhance construction processes.

Hands-on experience and soft skills are cornerstones of the programme. Students participate in laboratory work, project-based learning and industry placements, providing practical experience with the latest tools and technologies.

CAREER PROSPECTS

- BIM Engineer
- Building Control Surveyor
- Consulting Engineer
- Design Engineer
- Geotechnical Engineer
- Hydraulic Engineer
- Project Engineer
- Site Engineer
- Structural Engineer
- Traffic / Transportation Engineer
- Water Engineer

PROGRAMME STRUCTURE - Subjects

Year 1

- Artificial Intelligence
- Communication Skills
- Engineering Materials
- Engineering Mathematics 1
- Engineering Mathematics 2
- Engineering Mechanics & Dynamics
- Engineers in Society
- Programming for Engineers
- Topographical Engineering
- Sustainable Engineering Design

Year 2

- Accounting & Finance for Engineers
- Civil Engineering Materials
- Data Analytics for Engineers
- Engineering Geology & Soil Mechanics
- Engineering Mathematics 3
- Entrepreneurial Mindset & Skills
- Fluid Mechanics
- Introduction to Civil Engineering Design Philosophy
- Project Management & Engineering Design
- Structural Analysis
- Sustainable Digital Construction Technology

Year 3

- Advanced Structural Analysis
- AI in Civil Engineering
- Civil Engineering Integrated Design Project 1
- Construction Camp
- Geotechnical Engineering
- Hydraulic System & Design
- Reinforced Concrete Design
- Road and Pavement Engineering
- Structural Steel & Composite Design
- Terrestrial Hydrology
- Transportation Engineering



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Year 4

- Civil Engineering Integrated Design Project 2
- Final Year Project 1
- Final Year Project 2
- Industrial Training
- Water & Wastewater Systems Design & Operation

Year 4 Electives (Choose 4)

- Advanced Concrete & Fastening Design
- Advanced Structural Steel Design
- Advanced Water Resources Engineering
- Bridge Engineering
- Finite Element & Advanced Computational Method
- Foundation Engineering
- Innovative & Sustainable Building Material Design
- Precast Concrete Design
- Solid Waste Management
- Special Concrete
- Structural Dynamics & Earthquake Engineering
- Tall Building Design

MOHE COMPULSORY GENERAL STUDIES SUBJECTS

For Local Students:

- Appreciation of Ethics & Civilisation
- Bahasa Kebangsaan A
 (Applicable to students who did not sit for
 SPM or did not obtain a Credit in SPM
 Bahasa Melayu) / Critical Thinking
- Community Service for Planetary Health
- Integrity & Anti-Corruption
- Philosophy & Current Issues

For International Students:

- Appreciation of Ethics & Civilisation
- Community Service for Planetary
 Health
- Critical Thinking
- Integrity & Anti-Corruption
- Malay Language for Communication 2



FACILITIES

SCHOOL OF ENGINEERING & TECHNOLOGY LABS

The School of Engineering & Technology is well-equipped with state-of-the-art facilities to meet our teaching and research needs. We constantly invest in upgrading, constructing or acquiring new facilities to enhance the learning experience and advance our research possibilities.



Osborne Reynold's Demonstration



Carpentry Workshop



Solar Energy Unit



FDM 3D Printer (multi-colour)



SLA 3D Printer



Modular Educational Systems for Drivers of DC Motors



Chemical Reaction and Process Control Lab



Distillation Column



Modular System for the Study of Sensors



Oscilloscope, Function Generator, and Power Supply



Computer-Controlled Modular Control and Regulation Unit with Ball and Beam Module



School of ENGINEERING & TECHNOLOGY



CyberSecurity Intelligence (CSI) Lab



Heat Transfer Lab



Fluid Mechanics Lab



Chemistry Instrument Lab



Instrumentation and Control Lab



Engineering Physics Lab



House of Multimodal Evolution (HOME) Lab



Research Centre for Nano-Materials and Energy Technology Lab



Sunway Centre for Electrochemical Energy and Sustainable Technology Lab



Chemical Engineering Lab equipped with Mass Spectrometer (ICP-0ES)

MORE LABS COMING SOON:



- Renewable Energy Lab
- Mechanical Workshop
- Solid Mechanics and Materials Lab
- Light & Heavy Structural Lab
- Concrete and Highway Lab
- Environmental and Water Resource Lab
- Building Information Modeling (BIM) Lab
- XR Lab
- Chemical Engineering Pilot Plant
- Collaborative Robots and Industrial Automation Lab
- Mobile Robotics Lab
- & more!

MOBILITY & STUDY ABROAD

	MOBILITY OPTIONS*								
	Lancaster University		Australian National University		University of Western Australia	University of California, Berkeley		Korean Summer/	
PROGRAMME	Summer programme	Study abroad	Trar	nsfer	Transfer	Start-up semester	Bootcamp	Winter	
	Duration								
	3 weeks	1 semester	1+2 years	2+2 years	1+2 years	1 semester	4½ days	2 weeks	
COMPUTER SCIENCE	✓	✓	✓	✓	✓	✓	✓	✓	
INFORMATION SYSTEMS (DATA ANALYTICS)	✓	✓	√	✓	✓	✓	✓	✓	
INFORMATION TECHNOLOGY (COMPUTER NETWORKING AND SECURITY)	√	√	√	√	√	√	√	√	
SOFTWARE ENGINEERING	✓	✓	✓	✓	✓	✓	✓	✓	
INFORMATION TECHNOLOGY	√	✓	✓	✓	✓	✓	✓	✓	
CHEMICAL ENGINEERING	√	✓	_	✓	_	_	_	✓	
ELECTRONIC & ELECTRICAL ENGINEERING	✓	✓	_	✓	_	_	_	✓	
MECHANICAL ENGINEERING	✓	_	_	✓	_	_	_	✓	
CIVIL ENGINEERING	√	_	_	_	_	_	_	✓	
MECHATRONIC ENGINEERING (ROBOTICS)	√	_	_	_	_	_	_	√	

^{*}Terms & conditions apply. The study plan may change on a case-by-case basis.





ACTIVITIES BEYOND THE CLASSROOM

COMPETITION AND RECOGNITION



Bachelor of Information Systems (Honours) (Data Analytics) student being recognised by the Premier Digital Tech Institutions (PDTI), MDEC.



Natalie Ng Yin Xin, a Bachelor of Science (Honours) in Computer Science student won the 2024 Generali Malaysia Volare Scholarship Award of RM 36,000.



Geoi Ree Gyn, a Bachelor of Information Systems (Honours) (Data Analytics) student won the world champion title at the 2024 Open World Dance Championship in UK Blackpool! Geoi Ree Gyn triumphed in "The Open Worlds Amateur Latin Solo", outperforming over 20 top dancers from across the globe, including countries like England, Ireland, Italy, Austria, Sweden and more!



Andrea Tan Chiao Pin, a Bachelor of Chemical Engineering with Honours student at Sunway University, has made us proud at the recent Times Higher Education Asia Universities Summit 2024!

She took part in the fireside chat and spoke about how AI is one of the major disruptors of the job market. Andrea's insightful contributions highlight the need for educational institutions to evolve and adapt to the changing landscape of the job market. Her participation underscores the importance of developing well-rounded graduates who are prepared to tackle future challenges with confidence and competence.



Kelwin Tan Seen Tiong, a Doctor of Philosophy (Computing) and team members, Prof. Angela Lee Siew Hoong & Dr Ganesh Kumar from Department of Computing and Information Systems won the Diamond Award under the PhD Category at the Final Year Project & Postgraduate Research & Innovation Poster Competition 2024 (RIPC 2024). The project title is Decoding the Multifaceted Catalysts for Blockchain Technology Adoption in Malaysia's Healthcare System.



Our final-year Bachelor of Information Systems (Honours) (Data Analytics) students (Chan Ming Li, Goh Jia Ying, Lai Jing Kun, Leanne Ooi Xin Ru) won the championship in a Datathon 2024 Competition organized by MCMC and Jomhack. Competing against 30 teams, our BSDA students emerged as champion with their impressive courier demand prediction model.



A team of students from School of Engineering and Technology, Sunway University and School of Art took part in an international Net Zero Tech Contest in Taiwan as one of the top 20 finalists.



5 October 2024 – First SUNCTF 2024 competition held by the Cyber Security Club in Sunway University.

WORKSHOPS





26 June 2024 - Sunway Analytics Society hosted a Panel Discussion in collaboration with Sunway Robotics Club, titled Insight from Engineering Pioneers. This event features a panel of esteemed engineering professionals, who shared their insights into career journeys, challenges, and triumphs in various engineering disciplines.



IT Recruitment Drive 2024 with participating employers ANT International, Boostorder, DKSH COMPANY, Emagine Edu Consultancy, Maxis, NMG Consulting, Ørsted, PayNet, Prasarana, Public Bank, PwC Malaysia, Schlumberger, Talentbank, and Vlan Asia. This event provided Sunway students with invaluable opportunities and insights into the ever-evolving tech industry.



Workshop by Prof. Ir. Dr. Rosdiadee Nordin under the IEEE Malaysia Antenna Propagation / Microwave Theory Technique / Electromagnetic Compatibility (AP/MTT/EMC) Joint Chapter - AP Technical Meeting Series 4/2024.

THINKER SPACE, B1, SET BUILDING,

JOHNSON JOHN



Inaugural Engineering Showcase (SUNSpark) organised by Sunway University IEM Student Section



SustHack Bootcamp 2024 was held on 1-5 April. Sunway University students and students from Singapore Polytechnic students formed groups and developed solution ideas to target problems related to relevant SDGs. The talks during the bootcamp gave students a solid exposure to exciting impactful projects/initiatives beyond classroom.



3 October 2024 - Up Close Tea Session with the Dean of School of Engineering and Technology.

TALKS



8 March 2024 - Workshop titled: "Exploring Cutting-Edge Data Science: Insights into Time Series Analysis and Generative AI", organised by School of Engineering and Technology and IEEE Computer Society Malaysia Chapter, with two invited international speakers shared their knowledge and experience in the area of data science and AI: Prof. Amlan Chakrabarti (University of Calcutta, India) and Dr. Jyoti Gautam (NSUT-East Campus, India).



15 March 2024 - Engineering Talk Series: NZ Horticultural Robotics, WaiRAS conducted by Dr Shen Hin Lim, Programme Leader of Mechatronics Engineering, University of Waikato, New Zealand.



20 February 2024 - Online Webinar: How to Address & Improve Novelty.



23 August 2024 - Talk on "Flat Optical Fibre for smarter Sensing: Potential Enhancements through Al and Applications".



6 February 2024 - Guest Lecture - Insights into IEM's Role in Malaysia.

STUDY TRIPS & VISITS



18 September 2024 - Hosted students from Singapore Polytechnic. Doing a workshop in designing a sustainable building.



11 – 12 April 2024 - SET Taiwan Student Study Trip 2024 led by Professor Ir. Ts. Dr Yap Kian Meng.



18 September 2024 - Hosted a Chemical Engineering Labs Visit from Institute of Technical Education (ITE), Singapore.

BRINGING YOU FURTHER

INTERNSHIP AND EMPLOYMENT OPPORTUNITIES

Aerospace

- GE Aerospace
- Honeywell
- Lockheed Martin

AgriTech

• IOI Corporation Bhd

Automotive

- BMW
- Mercedes-Benz (M) Sdn Bhd
- Perodua
- Proton
- Sime Darby

Building Material

- Tasek Corporation Bhd
- YTI

Computer Software

- Acestar Sdn Bhd
- Apptivity Lab Sdn Bhd
- AS Networks (M) Sdn Bhd
- Ascentrio Sdn Bhd
- BASS Sdn Bhd
- Commerce.Asia
- Cornet Research
- Dassault Systèmes
- Fusionex Corp Sdn Bhd
- Juris Technologies Sdn Bhd
- Netiquette Software (M) Sdn Bhd
- PeopleQuest
- Philip Solutions PLT
- PulseSync Sdn Bhd
- SAS Institute Sdn Bhd
- Service Rocket

Computer Hardware

- Dell
- Hewlett-Packard
- Western Digital

Construction

- Gamuda
- IJM Corporation
- Sunway Construction

Cybersecurity

- Condition Zebra (M) Sdn Bhd
- LGMS Malaysia
- Sysarmy Sdn Bhd
- Vigilant Asia (M) Sdn Bhd

E-commerce Service

- iPay 88 Sdn Bhd
- Shopee

Electronics

- Dyson Manufacturing Sdn Bhd
- Flextronics Group
- Globetronics
- Panasonic Group
- Samsung Group
- Sonv

Energy Solutions

- Baker Hughes
- First Solar Malaysia Sdn Bhd
- General Electrics (GE)
- Ranhill Worley
- Schneider Electric
- Technip

Information Technology

- Accenture
- Delaware Consulting (M) Sdn Bhd
- Hilti Asia IT Services (HAITS)
- IBM Malavsia
- Mesiniaga Berhad
- Metacloud Sdn Bhd
- Quandatics Sdn Bhd
- Sunway Group IT Shared Services Sdn Bhd
- Tencent Cloud International

Manufacturing

- Continental Tyres
- Daikin
- Hartalega
- Top Glove

Multinational Technology

- Alibaba Group
- Grab Holdings

Oil & Gas

- Exxon
- Petronas
- Shell

Oilfield Services & Equipment

Schlumberger

Oleochemicals

- Kuala Lumpur Kepong Berhad
- FPG Oleochemicals

Research

- Institute for Democracy and Economic Affairs (IDEAS)
- MIMOS Berhad

Semiconductors

- Intel Group
- Infineon Technologies
- OSRAM Opto
- Semiconductors Malaysia Sdn Bhd
- Carsem (M) Sdn Bhd
- Unisem (M) Bhd
- SilTerra Malaysia Sdn Bhd

Telecommunication

- Digi Telecommunications
- Huawei Technologies (M) Sdn Bhd
- Maxis Bhd
- Motorola
- Telekom Malaysia
- TIME dotcom Bhd
- Webe Digital

Transportation/Logistics

- Commerceone Solution Sdn Bhd
- DHI Information Services
- DKSH
- Grab

Transportation Solution

- Alstom
- Mott-Macdonald

Utilities

- TNB
- YTL Power
- Powertek
- Genting Sanyen Power

Web Development

- Ebryx Tech
- Excelfixer

Accounting

- Deloitte SEA Services Sdn Bhd
- Ernst & Young (EY)
- KPMG
- Pricewaterhouse Coopers

Banking

- CIMB Bank Bhd
- Hong Leong Bank Bhd
- Malayan Banking Berhad
- OCBC Bank
- Public Bank Berhad
- RHB Bank
- Standard Chartered Bank Malaysia
- UOB Bank

Business service

- Experian
- FUJIFILM Business Innovation
- GrowthOps
- Ikano Insight
- INFOPRO
- NielsenIQ
- Konica Minolta Business Solutions
- Priority Dynamics Sdn Bhd
- Roche Services (APAC) Sdn Bhd

Consumer Goods & Services

- Carlsberg
- Dutch Lady Milk Industries
- Estee Lauder
- F&N
- FOS Apparel Group Sdn Bhd
- Heineken
- Nestle
- Sherwin Williams Services (M) Sdn Bhd

Food & Beverage

- MvBurgerlab
- Sushi Kin Sdn Bhd

Marketing & Advertising

- Bean Search Expert Sdn Bhd
- C27
- IPG Media Brands Malaysia
- Moving Walls Sdn Bhd
- SearchGuru Sdn Bhd

Media and Broadcast Solutions

- Grass Vallev (M) Sdn Bhd
- Media Prima Berhad

Media/Entertainment

Cinema Online Sdn Bhd

Publishing

Penerbitan Pelangi Sdn Bhd

Theme Park

Sunway Lagoon

Travel Agency

Sunway Travel Sdn Bhd



Sunway University Tops Talentbank's Graduate **Employability Ranking for Third** Consecutive Year 2022, 2023 & 2024



The 13 business divisions are:

- Building Maetrials
- Construction
- Digital
- Education
- Hospitality
- Healthcare
- Investment & Financial
 - Services
 - Leisure

- Malls
- Quarry
- Real Estate
- REIT & other real estate funds
- Trading & Manufacturing

EXTERNAL ADVISORY COMMITTEE

External Advisory Committee (EAC) acts as an advisory committee for the Programmes Committee. It comprises of leaders in academia and industry as well as student alumni who support and are able to provide counsel and guidance for programme development in order for the programme to achieve its goals.

ENGINEERING



Ir. Dr Calvin
Chok Vui Soon
Company:
Kuala Lumpur Kepong
(KLK) Berhad
Position:
Senior Manager,
Group Sustainability
and Special Projects



Kee
Company:
Keysight Technologies
Position:
Application Development
Engineer

Mr Chee Seng



Ir. Chang Yew Cheong Company: Abbaco Controls Sdn Bhd Position: Director



Ir. Chen Thiam Leong Company: Primetech Engineers Sdn Bhd Position: Advisor



Daikin Research &
Development Malaysia
Sdn Bhd
Position:
Deputy General Manager,
Development Support
Division

Dr Chin Wai Meng

Company:



Mr Chin Wei Rick Company: Medline Industries Sdn Bhd Position: Project Manager



Ir. Chong Chew Fan
Company:
Greatians Consulting
Sdn Bhd
Position:
Director



Mr Chong Kee Yum
Company:
Bursa Malaysia
Position:
Manager, PMO



Mr Henry Lee
Siew Hang
Company:
Sustainpact
Consultancy
Position:
Director of Corporate
Sustainability



Ts. Nadzifah Hayati Binti Ariffin Company: Tenaga Nasional Berhad Position: Chief Engineer (Asset Strategy & Policies) Distribution Network



Chiang
Company:
ACO Group Berhad
Position:
Member Board of
Directors

Ir. Dr Ng Kok



Ir. Rafil Elyas
Company:
East One-Zero-One
Sdn Bhd
Position:
Owner & Principal
Engineer

.



Ir. Rozali Ahmad
Company:
DAR Energy Sdn Bhd
(DAR)
Position:
Director, Business
Development



Mr Tan Lim Wee Kwan Company: Top Glove Berhad Position: Senior Project Manager



Mr Tan Yeong Shun
Company:
Texas Instruments
Position:
Data Intelligence
Manager

COMPUTING



Ms. Abigail Sua Jee Qian Company: AirAsia Move Sdn Bhd Position: Senior Data Analyst



Dr Afnizanfaizal Abdullah Institution: Malaysian Research Accelerator for Technology & Innovation (MRANTI) Position: General Manager (Technology Commercialization)



Prof. Ts. Dr Aida Mustapha Institution: Universiti Malaysia Pahang Al-Sultan Abdullah Position: Deputy Vice-Chancellor (Research & Innovation)



Ms. Ch'ng Ke Xin
Company:
Setel Ventures Sdn Bhd
Position:
Analyst (Data/Growth)



Chieng Heng Tze
Institution:
University of Nottingham
Ningbo China
Position:
Associate Professor

Dr David



Mr Faiz Fablillah Company: Electrolux Position: Head of Data Governance, Master Data Management & Advanced Analytics Asia Pacific & Middle East



Mr Fong Choong Fook Company: LGMS Berhad Position: Chairman



Md Tahir

Company:
Appfuxion Consulting
Sdn Bhd

Position:
Senior Test Manager

Mr Herman Bin



Assoc. Prof.
Dr Ian K. T. Tan
Institution:
Heriot-Watt University
Malaysia
Position: Head of School,
School of Mathematical
and Computer Sciences



Mr Kevin Khoo Min Sinn Company: Sunway Group Position: Chief Information Officer



Swee Kweng
Institution:
SAS Institute, Malaysia
Position:
Principal Adviser,
Education & Academic
Program

Mr Khor



Mr Peter Kua

Company:
Growth.Pro Data
Science Consulting &
Academy, Malaysia

Position:
Co-founder



Dr Tan Ee Xion
Institution:
IMU University
Position:
Head of Department,
Digital Health and
Health Informatics,
School of Business
and Technology



Dr William Yeoh Institution: Deakin University, Australia Position: Associate Professor



Mr Lee Kok Seong
Company:
Takaful Ikhlas Family
Berhad
Position:
Senior Vice President
& Chief Information
Officer



Mr Vishwa Moorthy
Company:
Air IT
Position:
NOC Dispatcher



Abdul Kadir
Company:
Risk Management
Division, Bank Muamalat
Malaysia Berhad
Position:
Chief Information
Security Officer

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Ts. Dr Ismamuradi



Dr Morteza
SaberiKamarposhti
Institution:
Faculty of Computing
and Informatics,
Multimedia University
Malaysia
Position:
Assistant Professor

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WHERE ARE OUR GRADUATES NOW?



Aida Natasha Binti Khalil Ong **BSc (Hons) Information Systems** (Business Analytics)

Now known as Bachelor of Information Systems (Honours)
[Data Analytics]

Company: Maybank Investment Bank Position: Analyst, Strategic Solutions,

Equity & Commodity

Derivatives



Fennie Lee Jia Xian Bachelor of Science (Honours) in **Computer Science**

Company: Hilti Asia IT Services

(HAITS)

Position: IT Cohort Lead Business

Analyst



Chaang Yunhua Bachelor of Science (Honours) in **Computer Science**

Company: Tencent Cloud International

Position: Senior Partner Business

Development Manager



Joanavene Tan Qie Ven BSc (Hons) Information Technology (Computer Networking and Security)

Company: SeaMoney (Singapore)

Position: Digital Banking IT Risk

and Compliance Senior Associate



Cheah Yung Jien BSc (Hons) Information Technology (Computer Networking and Security)

Company: Tridentech Solutions

Sdn Bhd

Position: Chief Technical Officer



Lee Shu Yi **Bachelor of Software Engineering (Hons)**

Company: Ant Group

Position: Product Manager



Chee Chem Zing Bachelor of Science (Honours) in Information Technology

Company: Digital Route Sdn Bhd

Position: Senior Software

Engineer



Lee Yi Fei **BSc (Hons) Information Systems** (Business Analytics)

Now known as Bachelor of Information Systems (Honours)

(Data Analytics)

Company: BASF Asia Pacific

Service Centre Sdn Bhd **Position:** Business Solutions

Consultant, Digitalization of

R&D and Data Science



Chen Kah Weng Bachelor of Science (Honours) in **Computer Science**

Company: Accenture Singapore

Position: Technology Consultant



Marcus Lu Xian-Zheng Bachelor of Science (Honours) in **Computer Science**

Company: DKSH Corporate Shared

Services Center

Position: Senior Robotics Process

Automation (RPA) Developer



Choong Moon Zhe Bachelor of Science (Honours) in Information Technology

Company: KPMG Malaysia

Position: Software Developer



Ngoh Chin Joe Bachelor of Science (Honours) in **Computer Science**

Company: Decision Science Agency

Pte Ltd

Position: Full Stack Developer



Natalie Choo Yin Yii Bachelor of Software Engineering (Hons)

Company: Grab Malaysia

Position: Software Engineer-backend



Tan Tze Hong Bachelor of Software Engineering (Hons)

Company: Maybank Berhad Position: Technical Analyst



Neveen Hossam Mohamed Elafifi **BSc (Hons) Information Systems** (Business Analytics)

Now known as Bachelor of Information Systems (Honours) (Data Analytics)

Company: PwC (Middle East)

Position: Senior Consultant,

IT Risk Assurance



Tsai Yao Cherng Bachelor of Science (Honours) in **Computer Science**

Company: Deloitte

Position: SEA IT Senior Manager



Nicholas Chan Khin Whai BSc (Hons) Information Systems (Business Analytics)

Now known as Bachelor of Information Systems (Honours) (Data Analytics)

Company: Accenture

Position: Security Consultant

(Cybersecurity | Governance,

Risk & Compliance)



Tunku Intan Sophia Binti Tunku Noorzaman Bachelor of Science (Honours) in **Computer Science**

Company: Access World Position: IT Developer



Nyow Ning Xin BSc (Hons) Information Technology (Computer Networking and Security)

Company: Avepoint Singapore

Position: IT Senior Business Analyst



Vinudha A/P Jeya Sangar **BSc (Hons) Information Systems** (Business Analytics)

Now known as Bachelor of Information Systems (Honours)

[Data Analytics]

Company: Maybank Shared Services Group Position: Senior Executive, Business

Data Analysis, GT-Strategic

Data Management



Prashanth George A/L Mathew Bachelor of Science (Honours) in Information Technology

Company: Ricoh Business Services

Asia Pacific Sdn Bhd

Position: Regional Technical Account

Support Specialist



Yap Zhi Kai Bachelor of Science (Honours) in **Information Technology**

Company: Aiken Digital Sdn Bhd

Position: Senior Technical

Project Manager



Tan Jia Wen Bachelor of Science (Honours) in **Information Technology**

Company: Bolttech Malaysia

Position: Fullstack Software

Engineer



Yeap Khor Chin Bachelor of Software Engineering (Hons)

Company: Woow Moment Limited

Position: System Analyst



MALAYSIA'S



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We are immensely proud of the accomplishments of our graduates who have gone on to make a huge positive impact to the success of major Malaysian companies and indeed some of the world's leading organisations.

SUNWAY UNIVERSITY GRADUATES, TRULY A CLASS ABOVE

*Talentbank GE Index 2024

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