ENGINEERING AND TECHNOLOGY

Postgraduate
-   Prospectus   -
2022

SUNWAY UNIVERSITY
UNIVERSITY

A Class Above

CONTENTS

CONTACT:

SUNWAY UNIVERSITY DU025 (B)
Owned and governed by the Jeffrey Cheah Foundation
Registration no : 200701042913 (800946-T)

No. 5, Jalan Universiti, Bandar Sunway, 47500 Selangor Darul Ehsan, Malaysia.

university.sunway.edu.my

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+6 (03) 7491 8622

SunwayUniversity

@SunwayU

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

Sunway University is a leading not-for profit private university committed to the pursuit of educational excellence through scholarship, research and enterprise.

The University is ranked among the top 750 universities in the world according to the QS World University Rankings 2021 and is ranked among the top 18% in the QS Asia University Rankings 2022. It has a 5-Star institutional rating in the QS Stars University Ratings in its latest assessment, demonstrating excellence in the individual categories of "Teaching", "Employability", "Facilities", "Inclusiveness" and "Social Responsibility".

The University also enjoys the 5-Star "Excellent" rating in the National SETARA quality assessment, a rating that has been consistently maintained since 2009.

All these accolades bear testament to Sunway's resolve in ensuring high quality teaching, research and service excellence.

JEFFREY SACHS CENTER
on Sustainable Development
SUNWAY UNIVERSITY, Malaysia

United Nations chosen destination
for Sustainable Development Goals in Asia

RANKED 2022
QS WORLD UNIVERSITY RANKINGS

TEACHING
EMPLOYABILITY
FACILITIES
INCLUSIVENESS
SOCIAL RESPONSIBILITY

QS STARS
RATING SYSTEM

WELCOME

I am delighted to welcome you to this latest brochure of postgraduate programmes at Sunway University. In today's highly competitive job market where it is important to maximise your opportunities, studying for a postgraduate qualification can give you a significant edge.

In this brochure you will find a range of research Master's and Doctoral programmes offered by the School of Engineering and Technology. Each of these programmes has been carefully designed to give you the advanced skills and knowledge to be a future leader in your chosen field of activity. Full time and part time mode are offered in order to suit your own particular lifestyle and needs at the current stage of your career. Whether you are a fresh graduate (or soon-to-be graduate), or are already in work and wishing to upskill yourself to prepare for a career move or promotion, I'm sure you will find something of interest.

At Sunway University we have outstanding facilities to support our postgraduate programmes, including state-of-the-art laboratories and a dedicated graduate centre. We have expert lecturers and research professors in many areas who teach our postgraduate programmes and supervise postgraduate research theses. The University is relatively young by global standards, but is already ranked within the top 2% of universities in the world (QS World University Rankings). In the 2022 edition, Sunway University is ranked no. 121 in the QS Asia University Rankings 2022, as well as being ranked within the top 150 universities in the world under 50 years old. Some of our postgraduate degrees are offered in collaboration with Lancaster University in UK, enabling our students on these programmes to also qualify for Lancaster degrees. We also offer scholarships for many of our postgraduate programmes — you will find all the details in the following pages. Do get in touch and discuss your own particular requirements and aspirations with our academics who will be delighted to help you.

Thank you for considering Sunway University for your postgraduate studies. I very much hope to welcome you to Sunway in the near future.

G Wilkinson

Professor Graeme Wilkinson
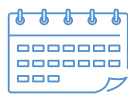DPhil (Oxford) FBCS FRSA
(Vice-Chancellor)

MSC IN COMPUTER SCIENCE (BY RESEARCH)

DURATION

Full-Time - 2 years
Part-Time - 3 years

INTAKES

Jasnuary, April, July, September

The MSc in Computer Science programme will train you to carry out research in current and emerging fields within the Information Technology industry.

With the aim of expanding your intellect by nurturing advanced knowledge in specialist technical subject areas, our focus is to enable you to lead future developments be it in the industry or in academia. You will be integrated as members of our research groups at Sunway University with various opportunities to participate in research alongside your supervisors through seminars, workshops, laboratory experiments and fieldwork. Graduates of the MSc in Computer Science will have competencies in the theory and practice of Information and Communications Technology (ICT) and Computer Science. They will be well-equipped with analytical and problem-solving skills to work as senior consultants or in managerial positions in their field of study.

This degree is validated by Lancaster University and upon the successful completion of the programme, graduates are awarded two certificates: one - from Sunway University and another - from Lancaster University.

VALIDATED BY:

Lancaster University

CAREER PROSPECT

- Computer science researcher
- Internet and networking specialist
- Senior systems consultant
- Software engineer
- Software quality assurance specialist
- Software solutions designer
- System analyst

ENTRY REQUIREMENTS

POSTGRADUATE PROGRAMME

MSC IN COMPUTER SCIENCE (BY RESEARCH)

Bachelor's Degree

- A Bachelor's Degree in Computing with minimum CGPA of 3.00 or equivalent.
  OR

Other Qualifications

- Any other qualification will be considered on a case-to-case basis.

ENGLISH LANGUAGE REQUIREMENTS

IELTS
- 6.5 or equivalent

TOEFL
- 550 (paper-based), 213 (computer-based) or 80 (internet-based)

PTE Academic
- 50 overall (minimum 46 in each skill)

Candidates who have completed a Bachelor's degree or equivalent in English would have met the language requirements.

PROGRAMME STRUCTURE

The MSc in Computer Science (by Research) consists of two taught modules and one thesis.

Candidates are required to complete two taught modules, namely Research Methodology and Directed Readings, before proceeding to write the thesis. By undergoing these two modules, candidates will develop the necessary skills and knowledge to conduct research successfully towards the Master's degree.

Research Methodology
Candidates will learn quantitative, qualitative and mixed research methods used in Computing and ICT fields. For each method, they will learn to use this method to design and implement research. At the end of the subject, candidates will be expected to formulate and submit an assignment requiring a clear research plan. It should cover various aspects such as problem statements, research motivation, objectives and requirements, the scope of research as well as research questions, hypothesis, and feasibility, identified selected research methodologies and their justifications, etc. All of this is to be in the area of candidate research interests and specialisation.

Class schedule for Research Methodologies
- Full-time: Monday (10.00am to 12.00pm)*
- Part-time: Saturday (2.00pm to 4.00pm) *
Subject to change according to intakes

Directed Readings
This module will provide candidates with comprehensive reading lists and resources to help them develop research models and areas of interest. Literature review skills and training on how to manage information and resources will also be introduced in this module.

Thesis
The MSc is awarded based on the successful completion of a thesis. The thesis should demonstrate proficiency, critically and mastery in the subject or chosen area of research.

SUB-AREAS OF RESEARCH / STATEMENT OF RESEARCH INTEREST
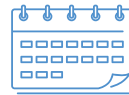
Please refer to page 10.

MSC IN INFORMATION SYSTEMS

DURATION

Full-Time   -   2 years
Part-Time   -   3 years

INTAKES

Jasnuary, April, July, September

Information Systems are a critical part of an organisation's IT infrastructure. The MSc in Information Systems strategically positions you to undertake information systems research that is theoretically and methodologically diligent.

With the aim of expanding your intellect by nurturing advanced knowledge in specialist technical and analysis subject areas, our focus is to enable you to lead future developments be it in the industry or academia. The programme gives you the opportunity to pursue research in an aspect of Information Systems that particularly interests you and organisations.

The programme enables you to develop capabilities in planning, organising, and carrying out research studies at a higher intellectual level. It expands your knowledge of research within your chosen field and helps you develop skills in communicating your research work. You will be integrated as members of our research groups at Sunway University with various opportunities to participate in research alongside your supervisors through seminars, workshops, experiments, and fieldwork.

Graduates of the MSc in Information Systems will have competencies in Information Systems theory and practice of ICT. They will be well-equipped with analytical and problem-solving skills to work as system analysts, consultants, or in managerial positions in their field of study who can manage information resources, understand the technologies and analyse information system data for decision making that are crucial to ensuring the success of today's modern enterprises.

This degree is validated by Lancaster University and upon successful completion of the programme, graduates are awarded two certificates: one - from Sunway University and another - from Lancaster University.

VALIDATED BY:

Lancaster University
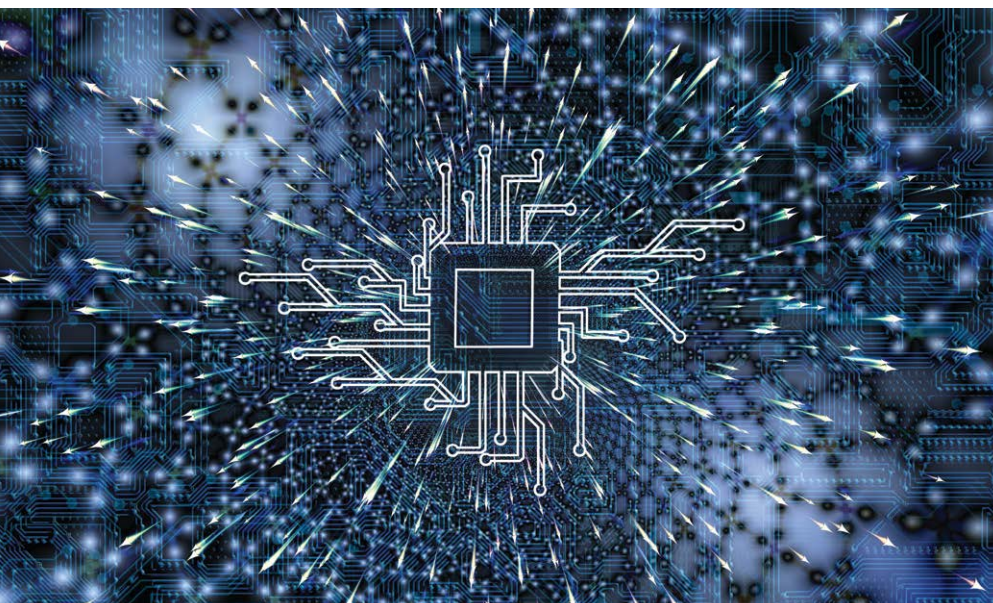
CAREER PROSPECT

- Chief/Information officer
- Computer Science researcher
- Data analyst
- Data scientist

- Database administrator
- Database engineer
- IT auditor
- IT consultant

- IT project director
- IT/Business system analyst
- Software engineer

ENTRY REQUIREMENTS

POSTGRADUATE PROGRAMME	MSC IN INFORMATION SYSTEMS
Bachelor's Degree	• A Bachelor's Degree in Computing with minimum CGPA of 3.00 or equivalent. OR
Other Qualifications	• Any other qualification will be considered on a case-to-case basis.

ENGLISH LANGUAGE REQUIREMENTS

IELTS	• 6.5 or equivalent
TOEFL	• 550 (paper-based), 213 (computer-based) or 80 (internet-based)
PTE Academic	• 50 overall (minimum 46 in each skill)

Candidates who have completed a Bachelor's degree or equivalent in English would have met the language requirements.

PROGRAMME STRUCTURE

The MSc in Information Systems consists of two taught modules and one thesis.

Candidates are required to complete two taught modules, namely Research Methodology and Directed Readings, before proceeding to write the thesis. By undergoing these two modules, candidates will develop the necessary skills and knowledge to conduct research successfully towards the Master's degree.

Research Methodology
Candidates will learn quantitative, qualitative and mixed research methods used in Computing and ICT fields. For each method, they will learn to use this method to design and implement research. At the end of the subject, candidates will be expected to formulate and submit an assignment requiring a clear research plan. It should cover various aspects such as problem statements, research motivation, objectives and requirements, the scope of research as well as research questions, hypothesis, and feasibility, identified selected research methodologies and their justifications, etc. All of this is to be in the area of candidate research interests and specialisation.

Class schedule for Research Methodologies
- Full-time: Monday (10.00am to 12.00pm)*
- Part-time: Saturday (2.00pm to 4.00pm)*
Subject to change according to intakes

Directed Readings
This module will provide candidates with comprehensive reading lists and resources to help them develop research models and areas of interest. Literature review skills and training on how to manage information and resources will also be introduced in this module.

Thesis
The MSc is awarded based on the successful completion of a thesis. The thesis should demonstrate proficiency, critically and mastery in the subject or chosen area of research.

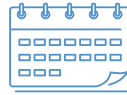### SUB-AREAS OF RESEARCH / STATEMENT OF RESEARCH INTEREST

PHD IN COMPUTING

DURATION

Full-Time - 3 years
Part-Time - 4 years

INTAKES

January, April, July, September

Candidates of the Doctor of Philosophy in Computing at Sunway University will be leaders and innovators in the fields of computing, information and communications technology.

This research-driven programme aims to further develop your research skills in some crucial areas of computing. By working under the close guidance of your supervisors, you will be exposed to the many aspects of research activities including conducting a critical analysis of the literature, identifying areas of contribution, compiling information, and communicating ideas through journal publications and conference presentations.

Supervision will be provided in an exclusive and one-to-one manner, and supervisors will be on hand to support you throughout the programme. Prior to enrolment, prospective candidates will have the luxury of consultation by Sunway's qualified and experienced supervisors to determine their areas of research.

The PhD in Computing is a homegrown programme with fast-expanding numbers of graduates.
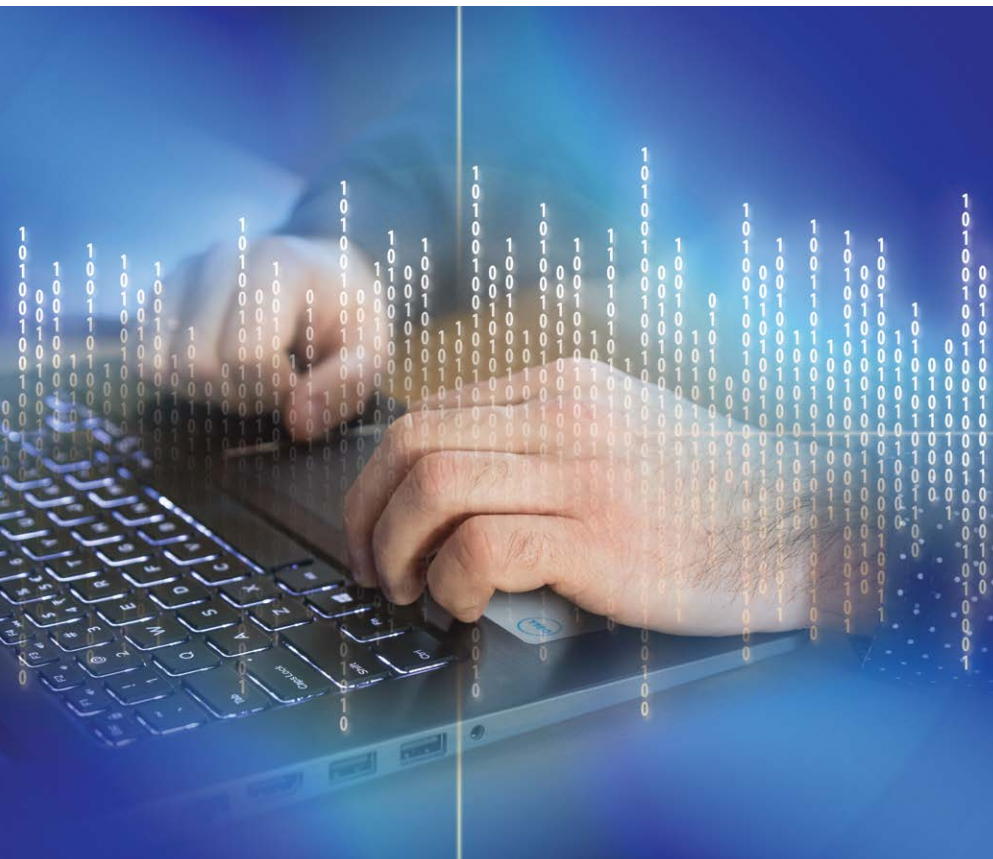
CAREER PROSPECT

Doctoral graduates are highly trained specialists in their fields. They may enter careers in academia, research, consulting as well as undertake specialist roles.

ENTRY REQUIREMENTS

POSTGRADUATE PROGRAMME	PHD IN COMPUTING
Bachelor's Degree	• A Master's Degree in Computing or related fields. Candidates holding a Master's degree in a field other than Computing will be considered, provided they hold a Bachelor's Degree in Computing or a closely related field. OR
Other Qualifications	• Any other qualification will be considered on a case-to-case basis.

ENGLISH LANGUAGE REQUIREMENTS

IELTS	• 6.5 or equivalent
TOEFL	• 550 (paper-based), 213 (computer-based) or 80 (internet-based)
PTE Academic	• 50 overall (minimum 46 in each skill)

Candidates who have completed a Bachelor's degree or equivalent in English would have met the language requirements.

PROGRAMME STRUCTURE

Candidates are required to complete three core modules, to enhance their knowledge in research followed by a doctoral research thesis.

Core Modules:
• Research Methodology
• Directed Readings
• Research Proposal

Research Methodology
Candidates will learn quantitative, qualitative and mixed research methods used in Computing and ICT fields. For each method, they will learn to use this method to design and implement research. At the end of the subject, candidates will be expected to formulate and submit an assignment requiring a clear research plan. It should cover various aspects such as problem statements, research motivation, objectives and requirements, the scope of research as well as research questions, hypothesis, and feasibility, identified selected research methodologies and their justifications, etc. All of this is to be in the area of candidate research interests and specialisation.

Class schedule for Research Methodologies
• Full-time: Monday (10.00am to 12.00pm)*
• Part-time: Saturday (2.00pm to 4.00pm)*
Subject to change according to intakes

Directed Readings
This module will provide candidates with comprehensive reading lists and resources to help them develop research models and areas of interest. Literature review skills and training on how to manage information and resources will also be introduced in this module.

Thesis
The PhD is awarded based on the successful completion of a thesis. The thesis should demonstrate proficiency, criticality and mastery in the subject or chosen area of research.

SUB-AREAS OF RESEARCH / STATEMENT OF RESEARCH INTEREST

Please refer to page 10.

Digital Transformation

SUB-AREAS OF RESEARCH

The school has a dedicated team of academicians who will mentor and discuss possible research topics including (but not limited to):

- 5G Networks
- Activity Recognition
- Affective Computing
- Artificial Intelligence
- Big Data Analytics
- Biometrics
- Business Intelligence Computing
- Cognitive Radio
- Cognitive Systems
- Computational Statistics
- Computer Networking
- Computer Vision
- Context Awareness
- Cultural Aspects of IT
- Data & Information Science
- Data & Knowledge Engineering
- Data Analytics
- Data Mining and Knowledge Discovery
- Distributed Systems Making
- Evolutionary Computation
- Haptics
- Human-Computer Interaction
- Image Processing
- Information Extraction and Visualisation
- Information Privacy & Security
- Information Systems Analysis & Design
- Information Systems Management & Strategy
- Information Technology Adoption & Decision
- Knowledge Engineering and Management

- Management in Information Systems
- Mobile Computing
- Multimedia Communications
- Multimodal Sensing
- Network and Computer Security
- Optical and Radio Communications
- Pattern Recognition
- Quantum Computing
- Sentiment Analysis
- Social Computing & Current Aspects of IT
- Software Engineering
- Statistical Computing
- Tele-robotics
- Text Analysis
- Touch Engineering
- Ubiquitous Computing
- User-centric Computing
- Virtual Reality
- Visual Processing
- Visualisation
- Wireless Networks

STATEMENT OF RESEARCH INTEREST

The statement of research interest should comprise a maximum of 1,000 words and covers the following structure:

a. Working Title;

b. Nature of the research that interests you and why; and

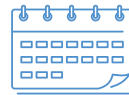c. Reference to anything you have read relevant to this research area
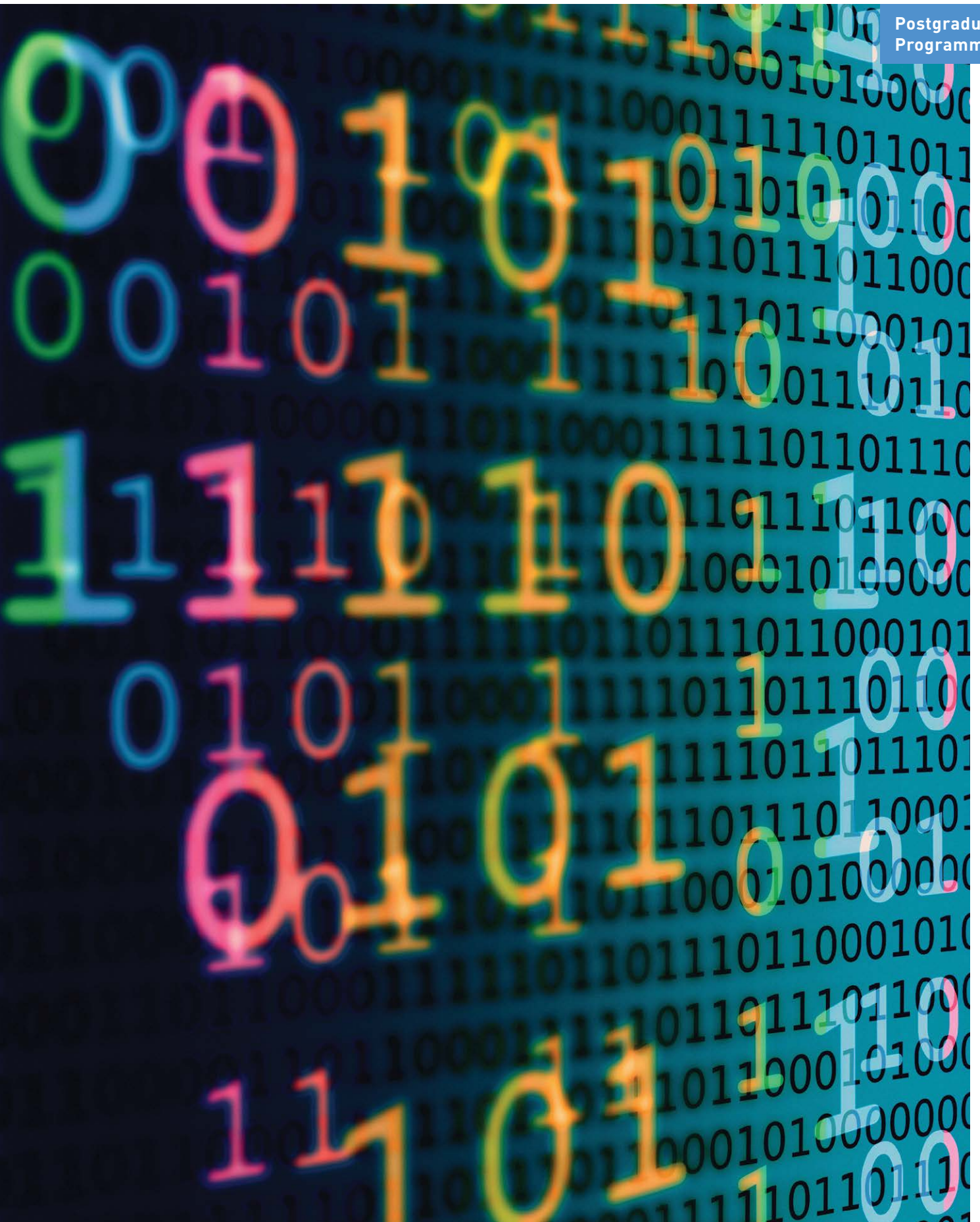
PHD IN SUSTAINABILITY SCIENCE AND TECHNOLOGY

DURATION

Full-Time - 3 years
Part-Time - 4 years

INTAKES

January, April, July, September

This novel PhD programme is developed in line with United Nation's (UN) sustainable development goals (SDG) and conducted at Sunway University's state of art laboratories. Programme is supported by its unique state of art lab facilities under different centres and departments with brand-new-high-end equipment that was built by spending for about RM20 million. Moreover, programme has highly qualified, experienced and world class academicians to supervise and train postgraduate students to be leaders in academia and industry.

Students will be exposed to many aspects of research including critical analysis of literature, identifying niche areas of interest, collecting and analysing data and communicating ideas through journal publications, book chapters and conference presentations. Students can consult Sunway's qualified and experienced supervisors to ascertain their area of research even prior to enrolment.

CAREER PROSPECT

Doctoral graduates are highly trained specialists in their fields. They may enter careers such as:

- Lecturer/Senior Educator
- Entrepreneur
- R&D (Senior Researcher, Manager)
- Research Scientist/ Post-Doctoral Research Fellow
- Consultant
- Prolific Scientific Writer
- Scientific Policy Maker

ENTRY REQUIREMENTS

POSTGRADUATE PROGRAMME	PHD IN SUSTAINABILITY SCIENCE AND TECHNOLOGY
Bachelor's Degree	• A Master's Degree (Level 7, MQF) in Science or Engineering disciplines that can be accepted by the University's Senate.
Other Qualifications	• Any other qualifications will be considered on a case-to-case basis.

ENGLISH LANGUAGE REQUIREMENTS

IELTS	• 6.5 or equivalent
TOEFL	• 550 (paper-based), 213 (computer-based) or 80 (internet-based)
PTE Academic	• 50 overall (minimum 46 in each skill)

Candidates who have completed a Bachelor's degree or equivalent in English would have met the language requirements.

PROGRAMME STRUCTURE

The programme consists of core modules followed by a doctoral research thesis.

Core Modules

Candidates are required to take only one module namely Research Methodology to learn the techniques used to identify, select, process and analyse information about a topic in research, in addition to the thesis component.

Class schedule for Research Methodologies

• Full-time/Part-time:
• Tuesday (11.00am to 1.00pm)*, or
• Monday & Wednesday (2.00pm to 3.30pm)*

Subject to change according to intakes

Thesis

The PhD is awarded based on the successful completion of a thesis. The thesis should demonstrate proficiency, criticality and mastery in the subject or chosen area of research.

SUB-AREAS OF RESEARCH

• Sustainability Science and Technology
• Emerging Nanomaterials
• Development and optimisation of renewable energy systems
• Energy Storage
• Advanced heat transfer fluids
• Novel green solvents with properties tuned for CO2 capture
• Development of new solid sorbents for CO2 capture
• Development and optimisation of CO2 conversion processes
• Sustainable smart city
• Machine learning
• Radiological risks associated with Naturally Occurring Radioactive Materials (NORM)
• Radiation physics

STATEMENT OF RESEARCH INTEREST

The statement of research interest should comprise a maximum of 1,000 words and covers the following structure:

a. Working Title;

b. Nature of the research that interests you and why; and

c. Reference to anything you have read relevant to this research area

HOW TO APPLY

As part of your application, please nominate TWO (2) referees who can provide reference letters about your suitability to undertake the programme (preferably, one academic and one professional). The letters must be printed on the letterhead of the respective referees' organisations. Each referee is requested to seal and send the hardcopy of the letter to the correspondence address as stated below. Alternatively, the referee may request the prospective student to send the sealed letter. Applicants will be required to submit the following documents:

- Sunway University Postgraduate Application Form
- A photocopy of NRIC
  (applicable for Malaysian applicants)
- Photocopy of full set Passport including hardcover
  (applicable for International applicant)
- One passport size photo (for Student ID Card)
- Copy of certified Bachelor Degree transcript
- Copy of certified Bachelor Degree completion certificate
- Copy of updated Curriculum Vitae (CV)
- Soft copy of thesis/written project and/or any appropriate supporting portfolio of materials/ prior creative works, where applicable
- Statement of Research Interest
- Evidence of English Proficiency
  Cambridge 'O-Level' with grade C or above / IELTS score of 6.0 or above. Most candidates who completed their undergraduate studies in Malaysia will have met the English language requirement through having successfully completed SPM English language.

All documents are to be sent to the correspondence address or email stated below. Incomplete documents will not be processed.

Programme Leader –
- **MSc in Computer Science (By Research) /**
- **MSc in Information Systems /**
- **PhD in Computing**

School of Engineering and Technology
SUNWAY UNIVERSITY
No. 5, Jalan Universiti, Sunway City,
47500 Selangor Darul Ehsan,
Malaysia

Email : **phoeyleet@sunway.edu.my**
(Assoc. Prof. Dr. Teh Phoey Lee)

CONTACT
. . . .
For more information, please email
Assoc. Prof. Dr. Teh Phoey Lee
(Programme Leader) at
phoeyleet@sunway.edu.my

Programme Leader –
- **PhD in Sustainability Science and Technology**

School of Engineering and Technology
SUNWAY UNIVERSITY
No. 5, Jalan Universiti, Sunway City,
47500 Selangor Darul Ehsan,
Malaysia

Email : **adarshp@sunway.edu.my**
(Dr. Adarsh Kumar Pandey)

CONTACT
. . . .
For more information, please email
Assoc. Prof. Dr. Adarsh Kumar
(Programme Leader) at
adarshp@sunway.edu.my

RESEARCH SUPERVISORS' PROFILE

- **MSC IN COMPUTER SCIENCE (BY RESEARCH)**
- **MSC IN INFORMATION SYSTEMS**
- **PHD IN COMPUTING**

IR ABDUL AZIZ OMAR
Associate Professor

- Wastewater treatment technologies
- Process plant engineering

TS DR. ANGELA AMPHAWAN
Professor

- Optical and Radio Communications
- Free Space Optics and Wireless Communications
- Image Processing
- Artificial Intelligence
- Sensors and Embedded Systems
- Digital Holography and Encryption
- Quantum Computing

TS DR. ANGELA LEE SIEW HOONG
Associate Professor

- Machine Learning for Data Science
- Predictive Analytics and Data Modelling
- Education Technology
- Blockchain

CHARIS KWAN SHWU CHEN
Lecturer

- Sustainability Development for Smart City
- Green Computing
- Mobile Learning

DR. CHIA WAI CHONG
Senior Lecturer

- Image Processing
- Embedded Systems
- Wireless Sensor Networks
- Mobile Applications

DR. CHIN TECK MIN
Lecturer

- Distributed Overlay Network

DR. CHUA HUI NA
Associate Professor

- Applied Machine Learning for Data Analytics
- Data Modelling for Data Mining
- Information Privacy and Security from Computing Aspects

IR DR. EU KOK SENG
Senior Lecturer

- Autonomous mobile robot navigation system
- Self-learning robotic arm
- Unmanned aerial vehicle (UAV) based remote sensing

DR. LAU SIAN LUN
Professor

- Ubiquitous Computing
- Sustainable Smart City
- Context-Awareness
- Applied Machine Learning

DR. LEE CHIEN SING
Professor

- Design Thinking, Computational Thinking
- Information Systems
- Human-Computer Interaction
- Knowledge Management
- Project Management

DR. LEE YUN LI
Associate Professor

- Computer Vision and Image Processing
- Augmented Reality
- Interactive Arts/Contents Design
- Machine Learning

LIM WOAN NING
Senior Lecturer

- AR and VR
- Haptics and Multimodal Senses
- Image Processing
- Machine Learning
- Mobile Computing

DR. LING MEE HONG
Senior Lecturer

- Trust and Reputation Management
- Applied Artificial Intelligence
- Security
- Cognitive Radio Networks

DR. LOW YEH CHING
Senior Lecturer

- Statistical Modelling and Inference
- Computational Statistics
- Statistical Methods for Data Science
- Statistics Education

IR DR. MATTHEW TEOW
Senior Lecturer

- Deep Learning

DR. MOHAMMAD DABBAGH
Senior Lecturer

- Empirical Software Engineering
- Requirements Engineering
- Blockchain
- Big Data Analytics
- IoT

DR. MUHAMMED BASHEER JASSER
Lecturer

- Formal Methods
- Model-Checking
- Safety-Critical Systems
- Theorem Proving
- Artificial Intelligence
- Evolutionary Computation

DR. MUHAMMAD AMAN SHEIKH
Lecturer

- Distributed and self-sustainable energy-efficient protocols for ad-hoc networks
- Electronic design and testing
- Instrumentation and measurement
- Medium access control layer protocols for wireless sensor networks (WSNs)
- Predictive condition monitoring and fault diagnosis

MUTHUKUMARAN MARUTHAPPA
Senior Lecturer

- Machine Learning Approaches
- Image Processing
- Mobile Programming
- Emerging Databases

DR. RICHARD WONG TECK KEN
Lecturer

- Smart Transportation System
- Operational Optimisation for Sustainability
- Embedded Systems Application

DR. TEH PHOEY LEE
Associate Professor

- Text Analysis
- Social Media Analysis
- Social Computing
- Information Acquisition

DR. YAP KIAN MENG
Associate Professor

- Sensory Technology
- Assistive Technology for Blinds and Elderly
- Haptics, Odour, Senses Distributed Applications
- AR and VR Applications
- Human-Machine Collaboration Technology
- Tele-robotics

• PHD IN SUSTAINABILITY SCIENCE AND TECHNOLOGY

DR. ADARSH KUMAR PANDEY
Assoc. Professor

- Phase Change Materials and Nano-Enhanced Phase Change Materials
- Solar Energy
- Photovoltaic/Thermal (PV/T), Concentrated Photovoltaic/Thermal (CPV/T) and Concentrated Photovoltaic (CPV)
- Dye Sensitised Solar Cells
- Energy and Exergy analysis

DR. CHEW MING TSUEY
Lecturer

- Radiation biology and radiation protection
- Diagnostic and therapeutic medical radionuclides
- Particle radiation for effective treatment of difficult to treat cancers

PROF DAVID ANDREW BRADLEY
Distinguished Professor and Head

- Applications of ionising radiations in biomedicine and industry
- Radiological risks associated with Naturally Occurring Radioactive Materials (NORM)
- Radioanalytical techniques for characterisation of media
- Radiation effects on cells and tissues
- Luminescence dosimetry

DR. FARIHAHUSNAH HUSSIN
Research Fellow

- Carbon dioxide capture, utilisation and conversion to value-added chemicals
- Electrochemical and adsorption processes using activated carbon
- Separation and Purification Processes
- Optimisation and Design of Experiment (DOE)

PROF. MAYEEN UDDIN KHANDAKER
Professor

- Medical physics – cyclotron production of radionuclides for medical applications
- Radiation physics – assessment of radioactive – and heavy metals and their removal from environmental samples
- Radiation dosimetry – development of silica-based optical fiber thermoluminescence dosimeter
- Nanoscience – synthesis of h-BN nanostructures for applications in neutron sensing, neutron capture therapy, medical imaging, etc

PROFESSOR MOHAMED KHEIREDDINE AROUA
Assoc. Dean and Head

- CO2 capture and utilisation
- Water and wastewater treatment
- Separation processes: Membrane technology, adsorption absorption
- Electrochemical conversions

PROF. DR MOHAMMAD KHALID
Head

- Nanofluids/Nanolubricants and Nanoadditives
- Graphene and 2D Materials Synthesis and Application
- Bio and Nano composites
- Thermoelectrics and Energy Harvesting

DR. MOHD AZLAN KASSIM
Research Fellow

- Carbon dioxide capture and utilisation
- COSMO-RS modelling
- Liquid thermophysical characterisation

DR. NUMAN ARSHID
Senior Research Fellow

- Electrochemical Energy Storage
- Electrochemical Sensors

PROFESSOR SAIDUR RAHMAN
Distinguished Professor and Head

- Renewable energy
- Nanofluids
- Energy efficiency
- Heat transfer
- Energy policy

DR. TAN KIM HAN
Research Fellow

- Synthesis and development of nanomaterials for applications in energy storage, optoelectronics and conductive fillers
- Nanocomposites
- Advanced materials related to tunable optical, thermal, electronic and electromagnetic studies
- Nanofluids

BURSARY & SCHOLARSHIP

POSTGRADUATE PROGRAMMES BY RESEARCH

Scholarships are open to all **full time postgraduate** students enrolled for programmes **by research**. Eligibility criteria are given in the table below. Additionally, applicants must meet all necessary entry requirements for their chosen programme of study and be in receipt of an unconditional offer from the University.

Awards made to students under this scheme shall take effect from the 1st day of enrolment and shall, subject to satisfactory performance and successful progression, last for the normal duration of the programme. The University reserves the right to withdraw the award at any time should the student's behaviour or performance be unsatisfactory, or the student withdraws or is withdrawn from the postgraduate study.

The student must have successfully completed their proposal defense, have received ethics approval and be able to demonstrate that data collection has commenced by the end of Year 1 to continue the scholarship funding for Year 2.

ELIGIBILITY CRITERIA FOR BURSARY OR SCHOLARSHIP

	FUNDED PROJECT SUPPORT SCHEME		BURSARY*		SCHOLARSHIP**	
	Criteria: Any PGR student undertaking a PhD or Masters by Research degree on a project that is fully funded by external sources		**Criteria:** Sunway Graduates who are meeting the entry requirement for Master or Doctoral degree programme		**Criteria:** CGPA ≥ 3.5 or CAVG ≥ 70% or Distinction (or equivalent)	
Programme	**Mode of Study**	**Quantum**	**Mode of Study**	**Quantum**	**Mode of Study**	**Quantum**
Masters by Research	Full-Time	100% tuition fee waiver	Full-Time	30% tuition fee waiver	Full-Time	60% tuition fee waiver
PhD by Research	Full-Time	100% tuition fee waiver	Full-Time	50% tuition fee waiver	Full-Time	100% tuition fee waiver

Bursary is only offered to Sunway graduates from Sunway Education Group higher education institutions.
*** Scholarship is open to Sunway and non-Sunway graduates.*

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Currently pioneering research with the University of Cambridge to collaborate on ways to combat the Covid-19 pandemic in the Jeffrey Cheah Biomedical Centre at the University of Cambridge.

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