



A CLASS ABOVE

RESEARCH

Sunway University at a glance



Malaysia's only
non-government linked
private university to achieve
an overall **5-Star** rating



TOP 2% IN ASIA
(ranked #232)



Consistently rated as a **5-Star**
institution by the Malaysian
Ministry of Higher Education
since 2009

Prestigious International Partnerships

Lancaster
University



LE CORDON BLEU®

International Collaborations

CAMBRIDGE
UNIVERSITY

HARVARD
UNIVERSITY

OXFORD
UNIVERSITY

UNIVERSITY OF CALIFORNIA
BERKELEY

Certified Quality Management System for the
Provision of Higher Education and Research
Management



**Premier
Digital Tech
University™**

One of **8** institutions in Malaysia awarded
by the Malaysian Digital Economy
Corporation

7,400
STUDENTS



400
ACADEMICS &
RESEARCHERS

MORE THAN
2,300
RESEARCH
PUBLICATIONS



10
RESEARCH
CENTRES
& GROUPS



RM350
million
INVESTED IN
FACILITIES



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Welcome

Sunway University has grown in size and reputation; we currently house 7 academic schools and 10 specialised research centres and groups.

Multidisciplinary in nature, our research examines diverse subjects within the overarching fields of science and technology, business, and humanities. In our commitment to the global Sustainable Development Goals, there is also an emphasis on sustainability research.

Providing theory-based solutions to tackle today's challenges and issues, our researchers have published extensively in leading journals, proceedings and books. We have among us award-winning and highly cited researchers whose expertise is well-known in their respective fields.

Whether you are a student, researcher or simply curious, we invite you to pick this up and explore all that Sunway has to offer.

Research at Sunway

We are home to two unique entities that support and oversee Sunway's research agenda and activities.



Sunway Innovation Labs (iLabs) is a unique, not-for-profit partnership between Sunway University, Sunway Group and Sunway Ventures to foster entrepreneurship and stimulate market-driven innovations. iLabs functions as an incubator of ideas and accelerator of innovations, working with the university research community in transforming results of academic research and development into marketable products and services.

CONTACT

ilabs.community@sunway.edu.my

PROGRAMMES

The following programmes are available for students, researchers and innovators in the university:

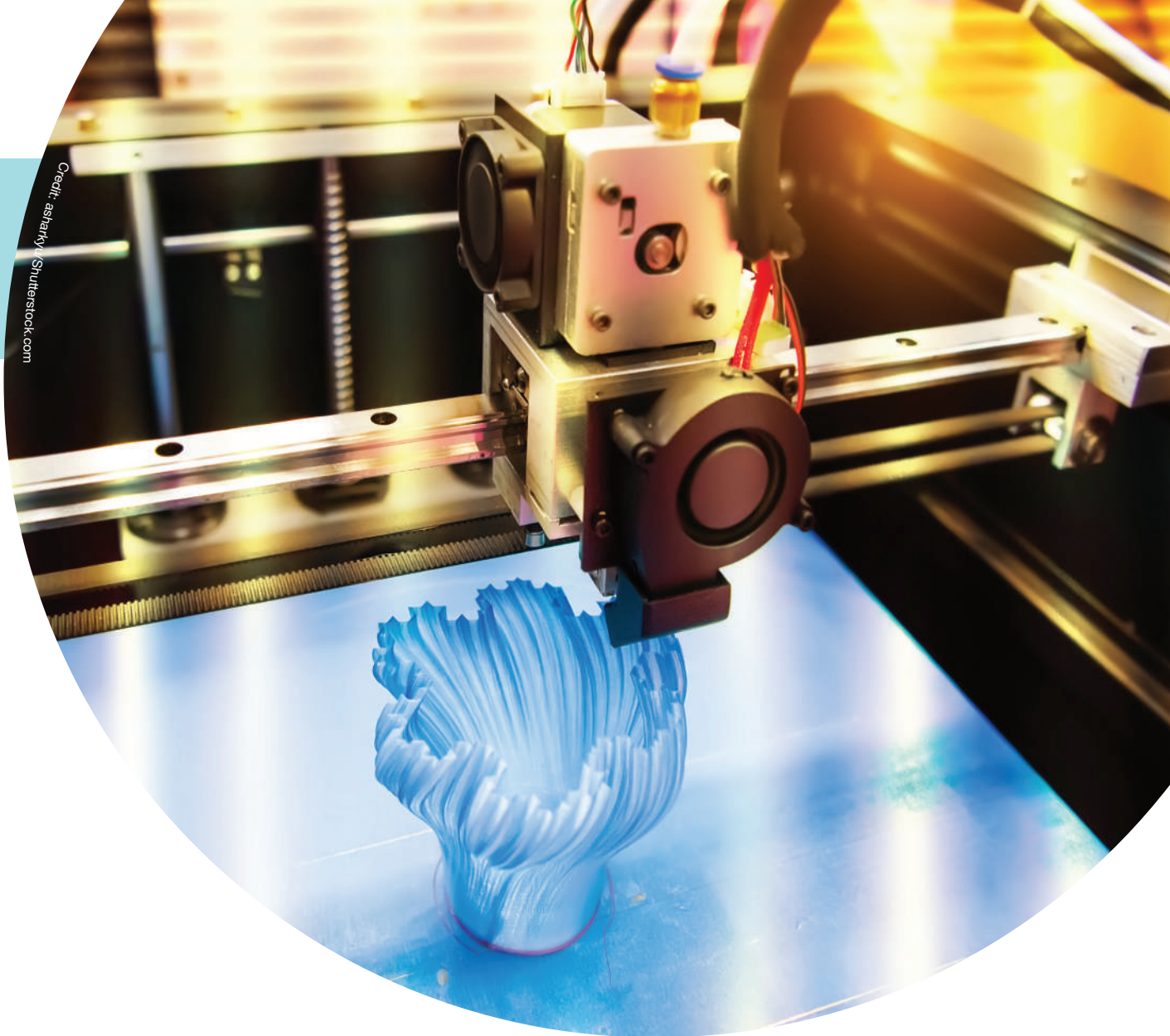
- Accelerator programmes for start-ups
- Design thinking workshops
- Hackathons
- Ideation competitions
- Industry challenges/open innovation programmes
- Start-up speaker series

PROFESSIONAL SERVICES

- Access to a testbed for market validation
- Advisory and mentorship on commercialising research outputs from Sunway University
- Advisory on funding opportunities
- Evaluation and protection of IP created in Sunway University
- Identification of commercial partners for technology transfer and IP commercialisation
- Negotiation of IP commercialisation agreements such as licensing, spin-outs, joint ventures or acquisitions

FACILITIES

- Co-working space for university entrepreneurs
- Event space
- Makerspace with prototyping tools



SUNWAY
R&D

Sunway R&D Sdn Bhd is the wholly-owned contract research and consultancy company of Sunway University. The company facilitates research collaborations between university academics and external organisations.

CONTACT

rnd@sunway.edu.my
+603 5639 8636

PROFESSIONAL SERVICES

- Collaboration with businesses and organisations of all sizes and at different stages of development, from start-ups and scale-ups to multinational companies
- Facilitation of industry–university collaboration through contract research and consultancy services
- Personalised solutions through our network of research expertise and cutting-edge facilities in Sunway University

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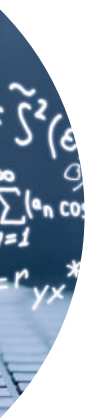
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School of Arts

Our researchers are active in their respective disciplines, having exhibited, performed and lectured throughout the world. We are engaged in research-creation across various disciplines including architecture, communication, design, film production, media practice, music and the performing arts.

In partnership with creative industries in Malaysia, Asia and the world, we produce new works of art and media campaigns as well as create music, theatre and film that address contemporary societal issues.

CONTACT

Professor Don Bowyer

Dean, School of Arts

dbowyer@sunway.edu.my

RESEARCH AREAS

Art & Design

- Climate control in the design of spaces
- Design thinking and practice
- Digital art
- Graphic design
- Green building
- History in interior architecture
- Interior architectural redevelopment
- Simulation development
- Urban design
- User experience design
- Visual storytelling

Communication Studies

- Advertising campaign design
- Corporate branding
- Corporate social responsibility
- Crisis communication
- Cultural communication
- Organisational communication
- Political communication

- Public relations
- Social marketing campaign
- Social media
- The business of advertising

Performance & Media

- Cultural and gender studies
- Ethnomusicology
- Film and media studies
- Film making
- Historical performance practice
- Improvisation
- Music composition, pedagogy and performance
- Performing arts in Southeast Asia
- Philosophy and aesthetics of the creative process
- Popular music studies
- Sound art
- Soundscape studies
- Theatre practice

PROFESSIONAL SERVICES

- Advisory on the impact of social media in public relations
- Audio and video production, design consultation, and media content for small and medium-sized enterprises
- Market research studies on Information Communications topics for government and industry
- Professional training on audio and video production, design, advertising, and public relations
- Professional training in public relations writing

POSTGRADUATE RESEARCH

MA in Visual Communication and Media Studies



FACILITIES

- Audio studio for music production
- Colour suite for film production
- Design studios and workshops
- Keyboard lab for teaching music
- Makerspace with 3D printers and laser cutter
- Shooting studio for film production



Centre for Research-Creation in Digital Media





We are a transdisciplinary hub for creative digital media, comprising local and international partners forming collaboratories (both physical and virtual) that cut across time and space.

Our team consists of media researchers and creative designers with extensive backgrounds in industry and education to forge the applications and content required to introduce and support creative digital media initiatives.

CONTACT

Professor Harold Thwaites

Head, Centre for Research-Creation in Digital Media
haroldt@sunway.edu.my

RESEARCH AREAS

- Cyberanthropology — Exploring the cultural imaginary
- Digital heritage and culture
- Digital humanities — Arts, teaching and research-creation
- Post-digital media research-creation

PROFESSIONAL SERVICES

We provide consultancy, production and training in the following areas:

- 3D printing
- Architectural visualisation and 3D modelling
- Digital humanities projects
- Industrial design
- New media strategies, including virtual reality and augmented reality projects
- Production services for digital humanities projects
- Production services for new media projects
- Soundscape/sound design

FACILITIES

- 360-degree video cameras
- Aerial drones
- Ambisonic (3D) audio recording equipment
- Multi-screen collaboratory
- Virtual reality equipment for workshops and demonstrations

Sunway University Business School

Our researchers analyse contemporary issues in the market and create practical solutions to them. From establishing a new framework for workplace inclusion to addressing factors of business sustainability, our multidisciplinary research spans across a wide range of topics that are relevant to academics, practitioners and policymakers.

CONTACT

Professor Chaiporn Vithessonthi

Associate Dean (Postgraduate & Research), Sunway University Business School
chaipornv@sunway.edu.my

RESEARCH AREAS

Accounting

- Accounting education and reform
- Assurance and corporate governance
- Financial reporting standards and practices
- Management accounting and advisory
- Taxation

Business Analytics

- Artificial intelligence/Internet of things
- Business intelligence/data analytics
- Statistics, optimisation and simulation
- Sustainable e-business/e-commerce
- Technology and social media (Big Data)

Commercial Law & Justice

- Banking law
- Child rights
- Contract law
- Human rights
- Insurance law
- International trade
- Youth justice

Economics & Finance

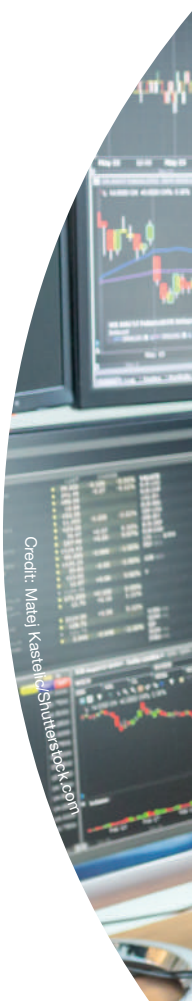
- Corporate finance
- Financial intermediation
- Financial markets
- International finance
- Macroeconomics and macroeconomic policies

Management

- Corporate social performance (e.g. work-life balance, entrepreneurship, humanistic management)
- Supply chain management

Marketing

- Consumer and brand loyalty
- Consumer values, emotions and behaviour
- Consumption behaviour
- Corporate social responsibility
- Governance and firm performance
- Technology adoption behaviour



PROFESSIONAL SERVICES

- Executive education
- Professional training on human resource and leadership skills

POSTGRADUATE RESEARCH

Doctor of Philosophy (Business)



School of Healthcare & Medical Sciences

Our researchers improve the quality of life through research in healthcare areas such as hypertension, diabetes and related cardiovascular diseases, primary care geriatrics, cancer-related studies, arthritis, patient care, public health policies, and mental well-being.

We have established ties with the Asia Hypertension Expert Network and the Young Investigators Network. Through our international and local collaborations, we have access to a large variety of facilities (in addition to our own) — animal house, flow cytometer, Matrix-assisted Laser Desorption/Ionisation-Time of Flight (MALDI-TOF) and microscopy techniques including live cell imaging, confocal, scanning electron and transmission electron.

CONTACT

Professor Peh Suat Cheng

Dean, School of Healthcare & Medical Sciences

pehsc@sunway.edu.my

RESEARCH AREAS

- Anticancer research of nanoparticles and polymer hydrogels
- Autoimmune diseases
- Genetics and evolution of respiratory viruses
- Geriatric medicine
- Hepatitis B virus and clinical-associated mutations
- Hypertension, diabetes and cardiovascular diseases
- Innate immune system
- Mental health and well-being in patients, healthcare workers and students
- MicroRNAs, exosome and metabolome studies in rheumatoid arthritis
- Predictive and/or prognostic biomarker discovery in colorectal and liver cancers
- Tumour-virus microenvironment in nasopharyngeal carcinoma



PROFESSIONAL SERVICES

- Anticancer and wound healing experimental designs
- Categorical classification modelling
- Data analysis
- Data collection on hypertension, diabetes, cardiovascular diseases and geriatrics problems
- PCR-based mycoplasma testing
- Research workshops
- Slide staining (hematoxylin and eosin, immunohistochemistry, and fluorescence *in situ* hybridisation)
- Taqman-based assay development
- Target-specific oncogene (e.g. KRAS, EGFR, etc.) mutation analysis
- Tissue microarray (TMA) construction

FACILITIES

Our Sunway Molecular Medicine Laboratory is well-equipped with various facilities:

- Automated cell counter
- Cell culture facility
- Decloaking chamber
- Fluorescence microscopy
- Microtome
- QuantStudio™ real-time PCR machine
- QuickDrop™ spectrophotometer and Qubit™ fluorometer
- Rotor-Gene Q 5plex
- Semi-automated tissue microarrayer
- Tecan multi-mode microplate reader
- Tissue embedded system



Centre for Biomedical Physics



Our research focuses on the health sciences, environmental protection and the needs of various industries including both non-nuclear and nuclear fuel cycle industries. Our research areas include heavy ion radiobiology, fundamental atomic and nuclear structure, and decay physics research with potential applications in a variety of fields.

We explore the many beneficial aspects of ionising radiation and engage in the development of novel radiation dosimetry systems, analysis of naturally occurring radioactivity, and furthering radiobiological and organised tissue characterisation studies.

CONTACT

Professor David Bradley

Head, Centre for Biomedical Physics
dbradley@sunway.edu.my

RESEARCH AREAS

- Development of passive and active dosimetry
- Environmental mappings
- Toxicological studies using radiation-based techniques

PROFESSIONAL SERVICES

- Radiation protection consultancy
- Site surveys for remediation of radiological contaminated land

FACILITIES

Through our international and local collaborations, we have access to the following:

- Electron linear accelerators
- Glass-forming and dosimetric facilities to conduct thermo-, radio-, iono- and optically stimulated dosimetry studies (TLD, RL, IL and OSL)
- Heavy ion sources and associated spectroscopies (e.g. Rutherford Backscattering and Proton-Induced X-Ray Emission)
- Spectroscopic techniques
- Synchrotron sources
- X- and gamma-irradiators
- X-ray imaging and electron-microscope-based image analysis (e.g. EDX)

School of Hospitality

Our research addresses the latest trends and current issues in the service industry, particularly in Southeast Asia, East Asia, Middle East and the South Pacific Islands. Encapsulating a divergent and multidisciplinary focus, we have examined authenticity and diversity in tourism research, analysed the role of service in creating customer loyalty as well as determined the success factors of entrepreneurs in establishing independent cafes.

CONTACT

Dr Gayathri Daisy Kanagasapathy

Associate Programme Leader (Research & Postgraduate Development)

School of Hospitality

daisyk@sunway.edu.my

RESEARCH AREAS

Food Studies

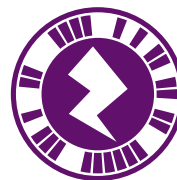
- Food choice and behaviour
- Food culture
- Food sustainability
- Halal food production and consumption
- Nutritional well-being of consumers
- Service recovery
- Traditional and indigenous food

Hospitality

- Co-branding
- Food and beverage management
- Hospitality organisational behaviour
- Hotel operations
- Human resources management
- Islamic and Arab hospitality
- Revenue management
- Service marketing

Tourism & Events

- Airline service management
- Authenticity in tourism
- Destination marketing and management
- Eco-tourism
- Environmental impact of tourism
- Event management
- Halal tourism
- Heritage tourism
- MICE (meetings, incentives, conventions and exhibitions) tourism
- Sports tourism
- Sustainable tourism
- Tourism and small states
- Tourist behaviour



PROFESSIONAL SERVICES

We provide consultancy in the following areas:

- Branding and marketing
- Catering and culinary services
- Corporate social responsibility (CSR) initiatives
- Hospitality
- Restaurant and kitchen planning and set-up
- Tourism and event planning
- Wine management

FACILITIES

- Athanor (commercially-oriented restaurant)
- Beverage lab
- Cuisine, demo and pastry kitchens
- Dining Room (student training restaurant)
- Event studio
- Mock hotel suite



School of Mathematical Sciences

Our researchers undertake fundamental research in diverse topics across actuarial science, mathematics and statistics, and apply them to real-world scenarios. We have applied mathematical modelling to enhance water quality in fresh water bodies, integrated mathematical knowledge in artificial intelligence-based systems and explored the generalisation of mathematical theorems and formulation of proofs.

CONTACT

Professor Ho Chee Kit

Dean, School of Mathematical Sciences

ckho@sunway.edu.my

RESEARCH AREAS

Actuarial Science & Risk

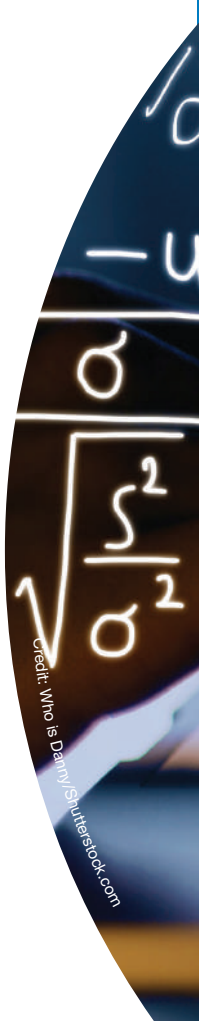
- Financial modelling
- General insurance (property and casualty)
- Mortality/Morbidity/Longevity of a population
- Risk management

Applied Statistics

- Applications of statistics in finance and insurance
- Applied probability
- Applied stochastic processes
- Medical statistics
- Time series modelling

Pure & Applied Mathematics

- Combinatorics
- Fluid dynamics
- Graph theory
- High performance computing
- Linear algebra
- Mathematical modelling
- Mathematical programming
- Neural networks and metaheuristic algorithms
- Numerical methods
- Simulation





PROFESSIONAL SERVICES

- Consultancy in the areas of mathematical modelling and applied statistics
- Short courses on actuarial practices

POSTGRADUATE RESEARCH

- MSc in Actuarial Science
- Doctor of Philosophy in Mathematical Sciences



School of Science & Technology

Researchers from the school are among the most highly cited in Malaysia and have won multiple research awards time and time again. Many of our researchers serve on international grant review boards and as editorial board members of major scientific journals.

We engage in cross-border, multidisciplinary collaborations that have resulted in innovative outcomes such as the discovery of new antibiotics from the study of cockroaches, the creation of a mobile cataract-screening application and the development of mindfulness-based strategies in reducing stress.

CONTACT

Professor Nigel Marsh

Associate Dean (Research), School of Science & Technology
nigelm@sunway.edu.my

RESEARCH AREAS

Biological Sciences

- Ecology and conservation research
- Human cell biology and experimental therapeutics
- Infectious disease and antimicrobial research

Computing & Information Systems

- Business analytics and visualisation
- Haptics
- Intelligent systems (i.e. network, robotics)
- Knowledge representation and management
- Machine learning/Data mining
- Sentiment analysis
- Smart future network
- Visual computing

Psychology

- Cognitive and emotional development of children
- Cross-cultural studies
- Decision-making and sense-making
- Empathy
- Learning and motivation
- Mindfulness
- Personality
- Psychology in the workplace
- Psychosocial consequences of traumatic injuries or chronic illness
- Risky behaviour
- Stress coping

PROFESSIONAL SERVICES

- Consultancy in research/industry projects
- Professional training on computing knowledge and skills

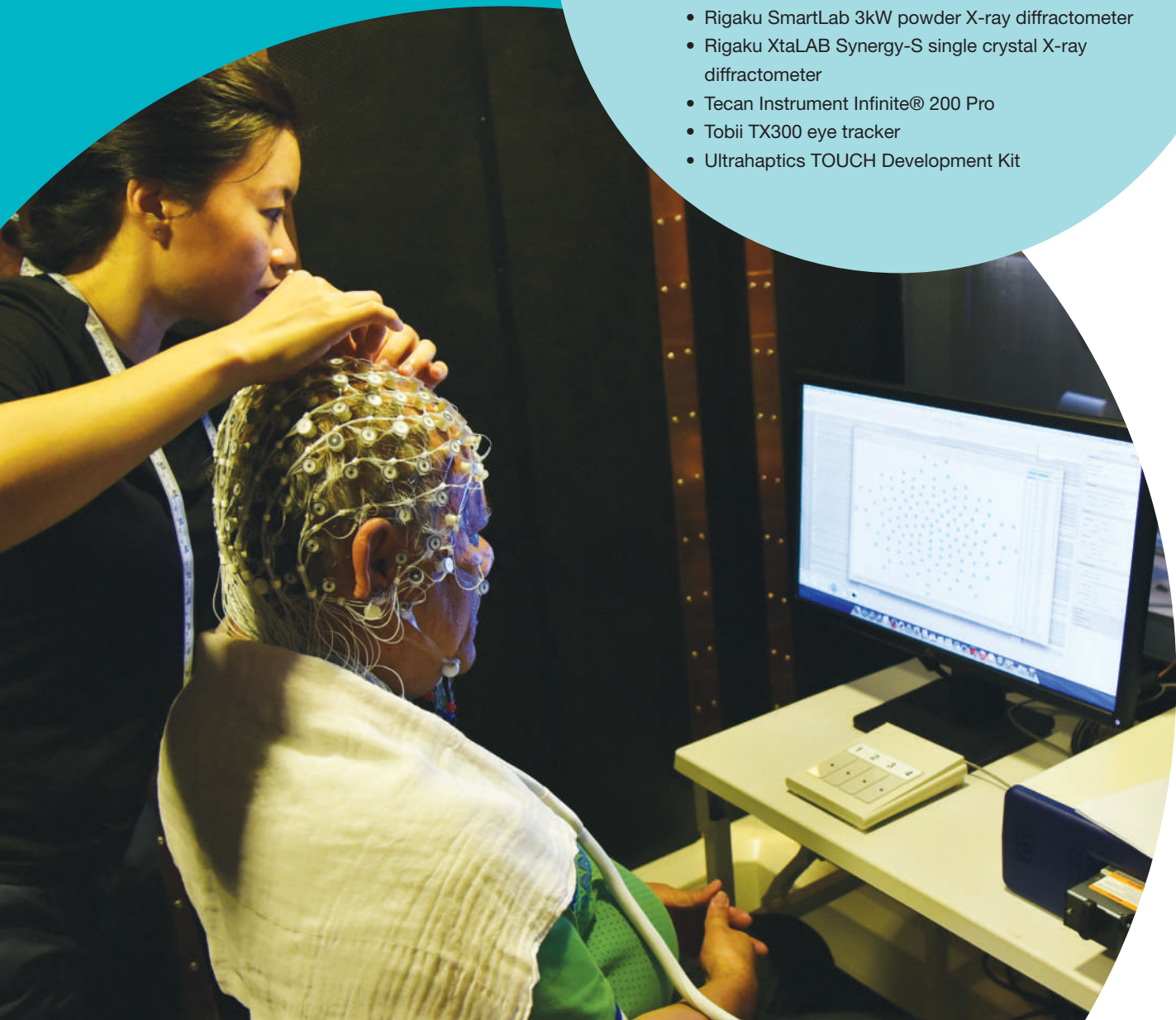
POSTGRADUATE RESEARCH

- MSc in Computer Science
- MSc in Information Systems
- MSc in Life Sciences
- MSc in Psychology
- Doctor of Philosophy in Biology
- Doctor of Philosophy (Computing)
- Doctor of Philosophy in Psychology



FACILITIES

- 128-channel Geodesic EEG System 400 with e-prime workstation and peripheral physiological system
- 3D Systems Touch 3D stylus
- BD FACSCalibur™ 4-colour benchtop flow cytometry system
- BD FACSCelesta™ flow cytometer
- Bruker Avance™ III HD NMR spectrometer
- EliSpot Reader
- ForceMaker X600 3D printer
- Nikon Eclipse Ti-S inverted fluorescence microscope
- Rigaku SmartLab 3kW powder X-ray diffractometer
- Rigaku XtaLAB Synergy-S single crystal X-ray diffractometer
- Tecan Instrument Infinite® 200 Pro
- Tobii TX300 eye tracker
- Ultrahaptics TOUCH Development Kit



Research Centre for Carbon Dioxide Capture & Utilisation





Our researchers conduct comprehensive research and engage in activities related to carbon dioxide (CO₂) capture and its transformation to fuels and value-added chemicals.

Through the reduction of CO₂ emissions, we address a number of the global Sustainable Development Goals such as climate action, affordable and clean energy, as well as industry innovation and infrastructure.

CONTACT

Professor Mohamed Kheireddine Aroua

Head, Research Centre for Carbon Dioxide Capture & Utilisation
kheireddinea@sunway.edu.my

RESEARCH AREAS

CO₂ Capture

- Absorption processes
- Adsorption processes
- Corrosion
- Green solvents
- Kinetics
- Membrane contactors
- Modelling and simulation
- Nanofluids
- Thermodynamics

CO₂ Utilisation

- Electrocatalysis
- Electrochemical conversion
- Enzyme catalysis
- Gas phase conversion
- Kinetics and mechanism
- Liquid phase conversion

FACILITIES

- COSMO-RS software
- Electrochemical workstation featuring electrochemical impedance spectroscopy
- High pressure and temperature CO₂ absorption reactor
- High pressure densitometer
- Low pressure CO₂ absorption rig
- Packed bed adsorption column
- Semi-batch reactor with liquid-gas flat interface for kinetics studies

PROFESSIONAL SERVICES

We provide consultancy and training through lectures, workshops, seminars and short courses, as well as expert services in the following areas:

- Corrosion studies
- Determination of breakthrough curves
- Evaluation and optimisation of solvent and sorbent performance for CO₂ capture
- Modelling and simulation of CO₂ capture processes

Research Centre for Crystalline Materials



Credit: PILL/Smarterstock.com



The centre is a focus for molecular structure determination through X-ray crystallographic methods. We examine how molecules assemble in the crystalline state and develop novel metal-based therapeutics agents. Our work has been described in nearly 2,000 research publications and received over 20,000 citations.

Our research revolves around the systematic syntheses, spectroscopic and physiochemical characterisation, as well as X-ray crystallographic and computational investigations of a series of functional materials designed for gas separation, catalysis and photoluminescence. Underscoring these endeavours is a focus on developing an understanding of how and why crystals form.

CONTACT

Professor Edward RT Tiekink

Head, Research Centre for Crystalline Materials
edwardt@sunway.edu.my

RESEARCH AREAS

- Metal-based drugs
- Pharmaceutical co-crystals
- Polymorphism
- Porous metal-organic species for gas storage/separation
- Single-crystal transformations
- Solid-state reactions
- The how and why of crystal formation

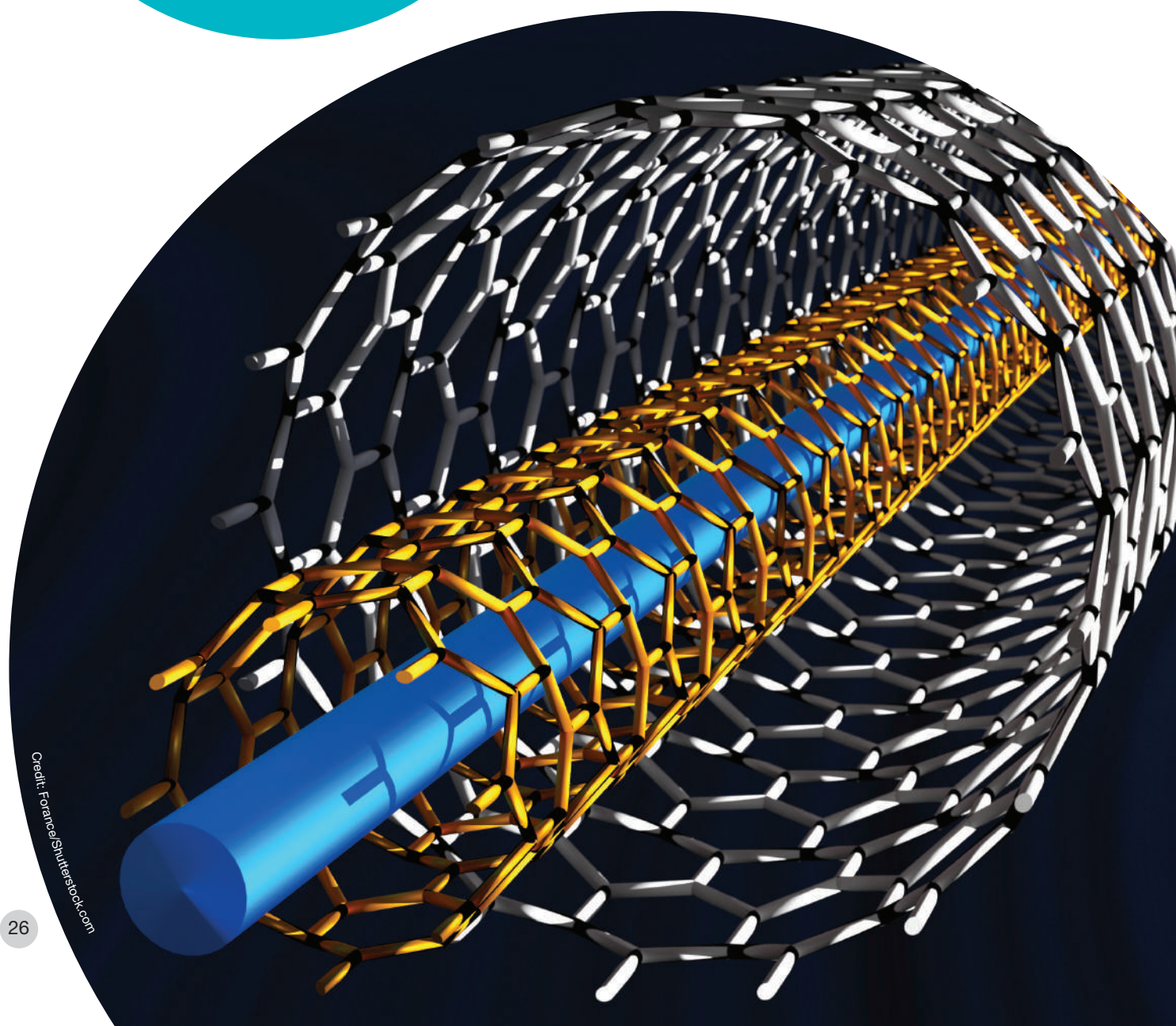
PROFESSIONAL SERVICES

- Analytical chemistry
- CHN analysis
- Gas absorption studies
- IR and UV/Vis spectroscopy
- Microwave synthesis
- NMR spectroscopy
- Phase identification
- Solid-state (vt) luminescence
- Synthetic chemistry
- X-ray diffraction methods

FACILITIES

- CHNS elemental analyser
- Differential scanning calorimeter
- Fluorescence spectrometer with optistat DN2 attachment
- Hot stage polarising microscope
- Infrared spectrometer
- Microwave synthesiser
- NMR spectrometer (400 MHz) with solid-state probe
- Physisorption gas analyser equipped with a cryostat
- Powder X-ray diffractometer
- Simultaneous thermal analyser
- Single-crystal X-ray diffractometer
- UV-Vis-NIR spectrometers

Research Centre for Nano-Materials & Energy Technology



Credit: Forance/Shutterstock.com



We support global sustainability efforts through the development of new technology based on nanomaterials. Our research involves the design, development, synthesis and testing of different nanomaterials for the purpose of enhancing various energy production and storage systems, particularly sources of renewable energy.

We collaborate with top international universities in Australia, United States, United Kingdom, Saudi Arabia and India, as well as local universities across Malaysia.

CONTACT

Professor Saidur Rahman

Head, Research Centre for Nano-Materials & Energy Technology
saidur@sunway.edu.my

RESEARCH AREAS

- Energy efficiency
- Heat transfer fluids
- Phase change materials
- Renewable energy
- Solar energy
- Synthesis and characterisation of nanomaterials

PROFESSIONAL SERVICES

We provide training through lectures, workshops, seminars and short courses as well as offer consultancy and nanomaterial testing services in the following areas:

- Energy audit
- Energy efficiency
- Energy management

FACILITIES

- 1000W fully reflective solar simulator
- Digital Reciprocating Shaker SHR-2D
- FRITSCH Planetary Mill PULVERISETTE 5 premium line
- FTIR Standard DTC, KBr, APV/AVI, sp10
- Linseis differential scanning calorimeter
- Linseis THB-500 transient hot bridge analyser
- Litesizer 500
- RV8 V Rotary Evaporator
- Sorvall Lynx 6000 superspeed centrifuge
- Teflon-lined hydrothermal synthesis autoclave
- TESCAN VEGA3 LMU scanning electron microscope
- TGA 4000 thermogravimetric analyser
- Vacuum oven 101L VO500 standard

Centre for Virus & Vaccine Research





Our research focus includes the understanding of the biology of viruses and the development of antivirals and vaccines against pathogenic viruses. We actively collaborate with other universities and biotechnology institutes/firms, and our research is supported by research grants from the Ministry of Science, Technology and Innovation (MOSTI), and the Fundamental Research Grant Scheme (FRGS) from the Malaysian Ministry of Higher Education.

We also provide research training to pre- and post-doctoral students as well as oversee research projects that are aligned with our research focus.

CONTACT

Professor Poh Chit Laa

Head, Centre for Virus & Vaccine Research
pohcl@sunway.edu.my

RESEARCH AREAS

- Immunogenicity of nano-vaccines against viruses
- Insights into the evolution of RNA viral genomes
- MicroRNAs as potential therapeutics and vaccines against dengue and enterovirus 71
- Molecular determinants of virulence and antigenicity
- New multi-epitope synthetic peptide vaccines
- Novel antiviral peptides against RNA viruses

PROFESSIONAL SERVICES

We provide consultancy and contract research for industry partners in the following areas:

- Cellular and humoral immune response measurement
- Development of antivirals
- Development of vaccines
- Viral diagnostics

FACILITIES

- Cell line and virus growth facilities
- CTL ImmunoSpot® S6 VERSA
- Flow cytometer (12 colours)
- Real-time PCR machine



Graphene & Advanced 2D Materials Research Group



We utilise the outstanding properties of graphene and two-dimensional (2D) nanomaterials for energy, electrical, material and biological applications. With an aim to enhance energy efficiency, we design, develop, synthesise and characterise graphene and advanced 2D materials to improve the performance of these various applications.

Through interdisciplinary and multidisciplinary approaches, we integrate heat transfer, tribology, material science and biotechnology to address thermal, energy harvesting and energy storage problems, as well as the Sustainable Development Goals.

CONTACT

Professor Mohammad Khalid

Head, Graphene & Advanced 2D Materials Research Group
khalids@sunway.edu.my

RESEARCH AREAS

- 2D nanomaterials as fuel additives for cleaner combustion
- Development of advanced heat transfer fluids compatibility of fuel delivery materials with alternative/renewable/treated fuels
- Development of innovative electrochemical energy storage devices
- Energy harvesting using thermoelectrics
- Modified electrodes for electrochemical sensing of bioanalytes

PROFESSIONAL SERVICES

- Battery performance studies
- Electrochemical sensor studies
- Formulation and testing of nano-lubricants, nano-grease and nano-coolants
- Hydrothermal synthesis
- Microwave synthesis
- Nanoscale heat transfer studies
- Performance enhancement through improved lubrication
- Supercapacitor performance studies
- Synthesis, functionalisation and characterisation of graphene and 2D materials

Centre for English Language Studies

We support the holistic development of English language fluency and accuracy for students. We constantly find ways to improve and advance the teaching and learning of the English language.

CONTACT

Professor Stephen Hall

Dean, School of Interdisciplinary Studies

Head, Centre for English Language Studies

stephenh@sunway.edu.my

RESEARCH AREAS

ASEAN Language Policies Impacting Practice

- Malaysian ELT curriculum
- Relationships between language, culture and communication
- Teacher education, native speakerism and plurilingualism

Blended Learning

- Digital literacy and language development
- Integrating technology and pedagogy
- Lifelong learning

Endangered Languages

- Bornean minority languages and communities
- Orthography development

English for Specific Purposes

- Approaches and tasks for learning English
- Industry needs and curriculum

Language Learning Assessment

- Formative and summative approaches towards assessment
- Learner's and teacher's perceptions of assessment
- Self-assessment and peer assessment

Reflective Teaching & Learning

- Classroom interaction
- Communities of practice
- Learning cultures in the local context
- Reflective facilitation
- Neurolinguistics and pedagogy

PROFESSIONAL SERVICES

- Academic Language Learning (writing support)
- English for Specific Purposes courses and course design
- Linguistic auditing

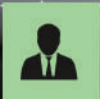


FACILITIES

Our Sunway Multimedia Integrated Language Environment (SMILE) is a state-of-the-art duplex of two 22-seater classrooms meant for blended learning and comprising the following:

- Integrated video recording
- Language software
- Learner management systems
- Smartboards

E-LEARNING



Center for American Education

The centre is home to the American Degree Transfer Program (ADTP). Our research interests are varied and multidisciplinary as we engage in collaborative work with researchers from the other academic schools and centres within Sunway University.

CONTACT

Dr Sim Tze Ying

Head, Center for American Education

tzeyings@sunway.edu.my

RESEARCH AREAS

Applied Mathematics

- Curves and surfaces modelling
- Number theory and cryptography

Biology

- Infectious disease and antimicrobial
- Pathogenic protozoan
- Nanoparticle drug conjugation

Communication

- Communication studies
- Linguistics
- Sociolinguistics

Computer Science

- Computing education
- Technology-supported learning
- Technology-supported process improvement

Education

- Active learning
- Blended learning
- Curriculum framework
- Instructional system development (ISD)
- Quality education

Environmental Engineering

- Optimising industrial air pollution control devices

Psychology

- Cognition and decision-making
- Organisational behaviour
- Reduced inequalities
- Social impact of visual impairment
- Sustainable development



Centre for Higher Education Research



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We respond to developments in global higher education by way of research into educational issues. Our research looks into issues surrounding higher education and ways to enhance the quality of higher education both locally and globally.

In collaboration with numerous local and international universities, we provide a platform for discourse through publications, symposiums and seminars.

CONTACT

Professor Glenda Crosling

Head, Centre for Higher Education Research
glendac@sunway.edu.my

RESEARCH AREAS

- Access and equity in post-secondary education
- ASEAN countries and internationalisation in higher education
- Assessment and teaching excellence in higher education
- Creative thinking in higher education studies
- Developing twenty-first century learning skills in higher education
- Digital and blended learning in higher education
- Education for sustainability in higher education
- Globalisation and higher education
- Graduate attributes and transnational higher education
- International students in higher education, including academic success
- STEM teaching and teacher training in Malaysia
- Students' well-being in higher education

PROFESSIONAL SERVICES

We provide academic reviewing for journal publications and examination of postgraduate theses. We also design training programmes and offer consultancy in various areas of higher education:

- Disciplinary identities
- Educational quality
- Higher education management
- Higher education policy
- Higher education teaching
- Staff advancement in educational and organisational settings
- Student learning and curriculum development

Jeffrey Cheah Institute on Southeast Asia



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We are an independent public policy think-tank that seeks to engage policymakers, scholars and the wider public through public lectures and discussions on pressing development issues in Southeast Asia. We also act as a catalyst in promoting Southeast Asian Studies globally.

We offer opportunities for a bilateral exchange of expertise, research and ideas with Harvard through the Jeffrey Cheah Travel Grants. Eligible Sunway academics and students have the opportunity to share academic findings and present lectures at Harvard as well as have access to Harvard's vast resources.

CONTACT

jci@sunway.edu.my

RESEARCH AREAS

Economic Studies

- Fiscal decentralisation
- Islamic green finance
- Malaysian political economy
- Regionalism
- Sustainable/Green investment

Governance

- Institutional reform
- Southeast Asian politics

Social Progress

- Education reform
- Human capital development
- Poverty eradication and alleviation programmes
- Public health

PROFESSIONAL SERVICES

- Public forums
- Public policy advisory

Jeffrey Sachs Center on Sustainable Development



We are a regional centre of excellence that advances the achievement of the 17 Sustainable Development Goals in Malaysia and Southeast Asia through education, training, research and policy advisory.

Under the supervision of Professor Jeffrey D Sachs — one of the world's leading experts in sustainable development — we focus on research and policy practice in developing solutions related to the Sustainable Development Goals.

We deliver world-class programmes to train students, practitioners and policy leaders on sustainable initiatives while working in collaboration with the industry, government bodies, non-governmental organisations and universities worldwide.

CONTACT

jsc@sunway.edu.my

RESEARCH AREAS

- Chronic malnutrition in children in Malaysia
- Clean and affordable energy systems
- Climate change and disaster mitigation for vulnerable communities
- Deep decarbonisation pathways
- Food systems and agriculture modernisation
- Forestry and biodiversity loss in Malaysia
- Speculative design as research intervention into healthy aging
- Sustainable Development Goals index portal
- Urban amenities, innovation and services in cities
- Urban poverty alleviation and community development
- Waste management

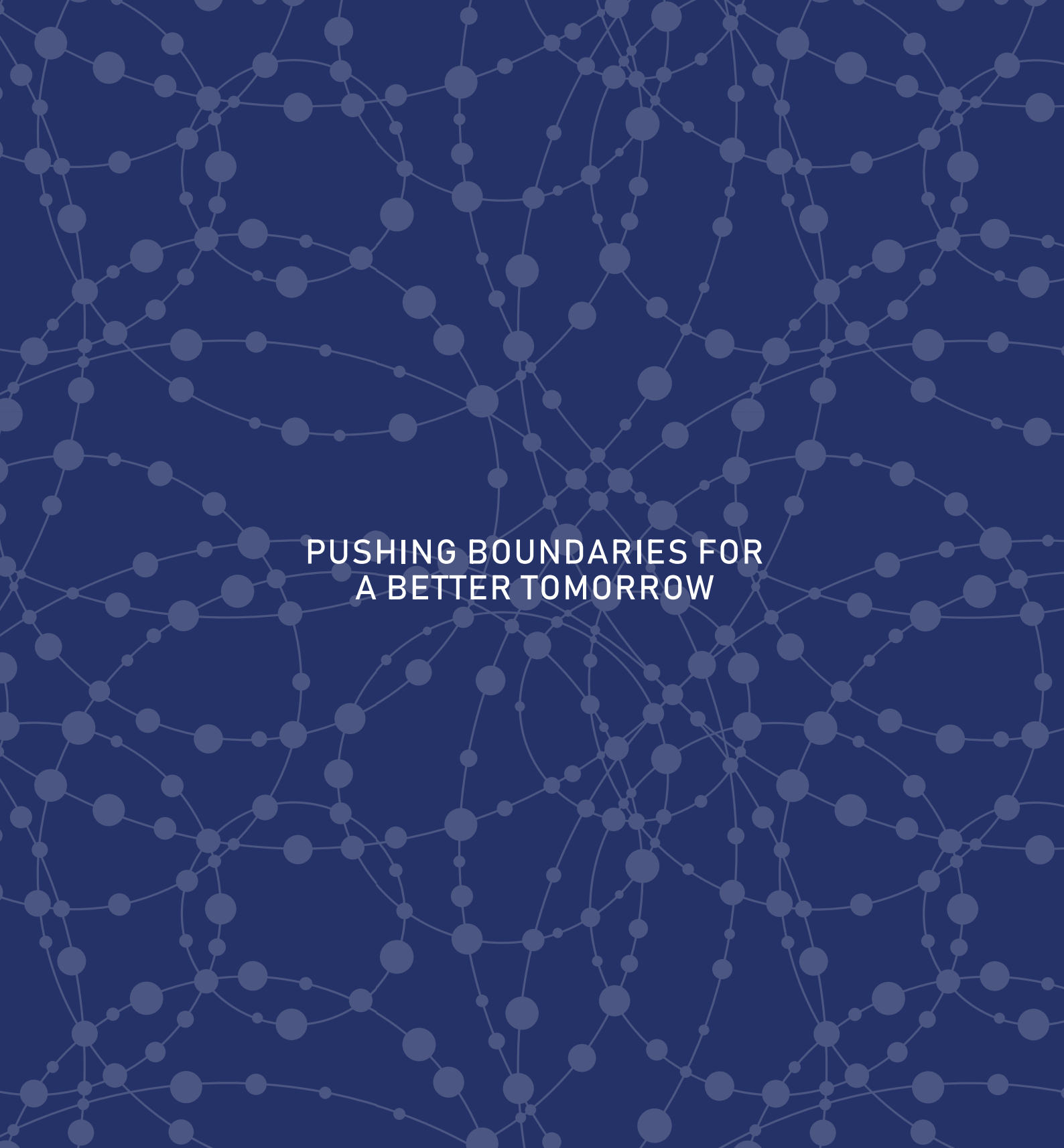
POSTGRADUATE RESEARCH

Master in Sustainable Development Management

PROFESSIONAL SERVICES

With the support of the United Nations Sustainable Development Solutions Network, we provide the following:

- Executive training programmes
- Workshops



PUSHING BOUNDARIES FOR A BETTER TOMORROW

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Nurturing the Seeds of Wisdom

All information is correct at the time of printing (December 2018)
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