



**SUNWAY UNIVERSITY
SUSTAINABLE
DEVELOPMENT GOALS**

2022/23
REPORT



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FOREWORD FROM PRESIDENT

I am thrilled to present the Sunway University Sustainable Development Goals (SDGs) Report 2022-2023. The SDGs, crafted by the United Nations, stand as pivotal targets that guide Sunway University in our unwavering commitment to confront global challenges with sustainable solutions, fostering progress across all seventeen goals.

As a leading university in the realm of SDGs, Sunway University has not only adopted these goals but has also pioneered innovative approaches to embed them into the fabric of our institution. Our leadership in sustainable development is marked by significant milestones such as the establishment of the Jeffrey Sachs Centre on Sustainable Development in 2016, the Sunway Centre for Planetary Health in 2021, and the inauguration of the Sustainable Development Solutions Network (SDSN) Asia Headquarters in 2022. These initiatives, in strategic partnership with SDSN's global offices and various stakeholders, highlight our role at the forefront of sustainable development in higher education.

Our dedication to planetary health and sustainability is the cornerstone of our identity. It informs our leadership decisions, operational practices, academic policies, teaching methodologies, research projects, campus activities, financial strategies, and our collaborations. We are steadfast in our commitment to these principles, ensuring that they are not just theoretical concepts but active, lived experiences for our community.

Moreover, Sunway University has distinguished itself by launching the #CampusWithaConscience campaign, a bold statement of our active engagement in sustainability practices. This campaign is a reflection of our holistic approach to sustainability, aiming to create a campus environment that is not only aware but also proactive in its commitment to sustainable living.

This report proudly showcases Sunway University's strategic initiatives and achievements in advancing all 17 SDGs during the 2022-2023 period, underscoring our deep-seated commitment to planetary health and sustainability.

Professor Sibrandes Poppema
President

HIGHLIGHTS OF THE YEAR




#1

Graduate Employability Index
by Talentbank Malaysia



TOP 400

Times Higher Education
Impact Ranking 2023



72.6 – 76.7

The Overall Score 2023




Top Scoring SDGS



SUSTAINABILITY AT SUNWAY UNIVERSITY

Sunway University was established in 2011 and has quickly become a leading not-for-profit university in Malaysia committed to pursuing education through scholarship, research and enterprise. The United Nations Sustainable Development Goals (UNSDGs) and Planetary Health are the guiding principles for our leadership, work practices and policies, in teaching and learning, research and our collaborations with our stakeholders.

SDG Rankings Overview

SDG 2023	SDG Rank	SDG Score	Salary Output	Field-weighted Citation Impact (5 year)	Publications in the Top 10% Journals
SDG3: Good Health and Well-Being	601 - 800	44.7 - 54.5	65th	-	-
 SDG 6: Clean Water and Sanitation	101 - 200	57.1 - 67.2	70th	85th	74th
SDG 7: Affordable and Clean Energy	301 - 400	51.9 - 56.1	73rd	93rd	82nd
 SDG 8: Decent Work and Economic Growth	101 - 200	66.4 - 71.5	68th	-	70th
 SDG 11: Sustainable Cities and Communities	201 - 300	60.1 - 67.0	62nd	83rd	64th
SDG 12: Responsible Consumption and Production	201 - 300	58.7 - 66.7	67th	83rd	74th
 SDG 17: Partnerships for the Goals	101 - 200	81.9 - 86.9	63rd	-	-

STRATEGIC VISION UNDER 4 PILLARS



Leadership

Sunway University commits towards institutional policy reforms, university-led actions and initiatives that will harness synergies among the 17 SDGs, that will nurture more sustainable and resilient communities globally.



Research

Sunway University continues to support researchers, staff, and students in executing research-oriented activities and events, fostering multi-disciplinary collaborations and deriving research innovation and technology outcomes and impact towards addressing the SDGs.



Education

Sunway University ensures that our education and curriculum development are embedded with sustainability and planetary health focuses, which is crucial to attaining a competitive edge in today's global area, leading to a global paradigm shift in education which emphasises the significance of sustainability.



External Engagement

Sunway University focuses on building strong networks and linkages with stakeholders both locally and globally in advancing the sustainability agenda to address the pressing global challenges.



LEADERSHIP

Sunway University is an institution of higher education that aims to be the nurturing ground for local and global citizens and in developing societies and economies towards a more sustainable future.

17 PARTNERSHIPS FOR THE GOALS

Establishment and the launch ceremony of SDSN's Asia Headquarters

On 17 and 18 November, 2022, the UN Sustainable Development Solutions Network (SDSN) launched its newest secretariat office in Asia, hosted at Sunway University. The office in Sunway City Kuala Lumpur will serve as SDSN's Asia Headquarters, one of only three such global centers, alongside Paris (overseeing Europe and Africa) and New York City (overseeing The Americas).

The launch of the Asia Headquarters is testimony to the importance of engaging countries in the Asia-Pacific region towards advancing the global sustainable development agenda. The launch comes 10 years after SDSN was established under the auspices of then-UN Secretary-General Ban Ki-moon. SDSN now has a global membership of over 1,700 institutions, of which about 90% are universities.



4 QUALITY EDUCATION

Promotional activities and showcases to increase public awareness of the Engineering and Computing programme provided by the School of Engineering (SET)

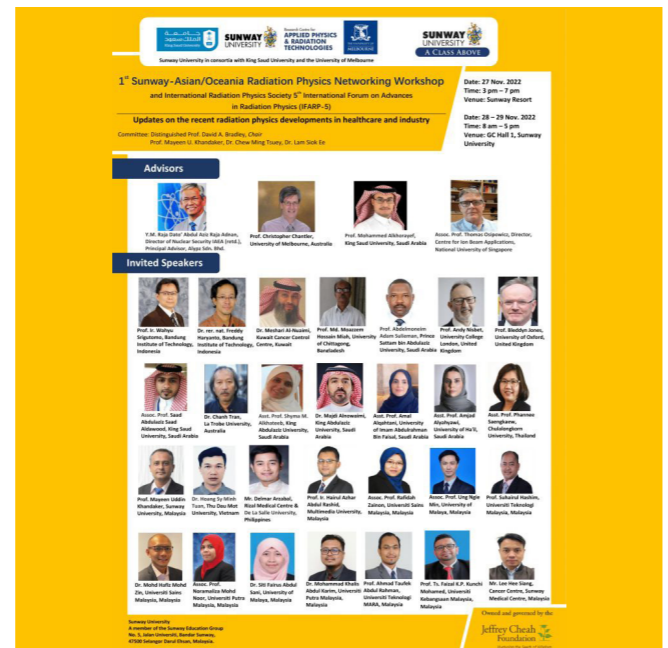
Various talks, workshops and talks were conducted to help potential students get to know the SET Engineering and Computing programme, such as overseas workshops at Mauritius, talks organized on campus and local secondary schools and many more. The increase in SET enrolment shows that the community is well-alert to the quality of education provided by SET.

The SET-Labs building was equipped with multiple engineering labs, study spaces and computer labs. Also, it is the first school with the school logo displayed on the external wall of the building.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Industrial engagements and collaborations with various institutes and companies

Under SET-Dean's leadership, various engagements were established with different institutions and companies, both locally and internationally, as well as collaboration in research and teaching



12 RESPONSIBLE CONSUMPTION AND PRODUCTION

The Last Straw Campaign

The Last Straw Campaign at Sunway University aims to reduce the amount of single-use plastic on campus. While it initially started with driving out plastic straws supplied by vendors on campus, it has now progressed to NO single-use plastic including plates, cups, cutlery and any sort of single-use supply effective December 2022.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Segregation of Waste and Recycling (3R Store)

Recycle bins are placed in strategic locations across the campus. The bins can take paper, newspaper, magazines & cards, mixed glass and plastic bottles, and metal cans. Internal segregated recycling bins have also been provided through staff offices and teaching areas across the campus.

Waste is separated on a daily basis and will be kept at the 3R Store (Reduce, Reuse and Recycle). There are three types of 3R stores: Furniture and Fittings, ACMV Parts (Air-conditioning and mechanical ventilation), and Cans, Paper and Plastic.



Recyclable items are collected by designated contractors at least once every quarter.

13 CLIMATE ACTION

Sunway Construction QESH Policy

In the process of building and developing all projects including Sunway University, Sunway Construction addresses climate change by complying with their QESH Policy which has strict regulatory compliance and management practices. Their aim is to prevent environmental pollution, ensure good stewardship in waste management and improve awareness of environmentally friendly practices.

All of their project sites are certified with the ISO 14001 Environmental Management System, ensuring stringent policy implementation, regular monitoring and target-setting for performance evaluation.

4 QUALITY EDUCATION

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Composting Room

Sunway University has a composting room on campus to mitigate food waste in landfills. The Composting Room located at the loading bay area at Sunway University is a joint collaboration between Facilities Services and the SMS2E Research Cluster Grant led by Professor Mohamed Kheireddine and Dr Jane Gew to re-purpose food waste to compost. The Cafeteria tenants and campus cleaners also have an opportunity to join in this composting initiative and learn the whole process of food composting and be educated to assist in the collection of food waste and assist in the composting process.



The composted food waste is used as fertiliser for our Herb Garden, landscape, and green lung around campus.

4 QUALITY EDUCATION

SDG Courses

A campus-wide SDG Education course was launched for all staff and students. The course is designed to strengthen our staff and students' foundational understanding of the United Nations 2030 Agenda and its 17 Sustainable Development Goals. As it is important for all SEG staff to be educated on this topic, they are required to complete this course within this year and their progress will be reported.

Every student in Sunway University has to complete the compulsory MOHE MPU subjects offered under the General Studies Department (GSD). The General Studies Department has incorporated the Sustainable Development Goals (SDGs) modules in their teaching and learning content by providing two SDG videos from the SDG Academy for review during pre-class activities. Another 10 SDG videos were given to students for group discussion. After watching the videos and going through the group discussion, students are required to do critical analysis, write a report and present it in class. The content of the MPU subjects has elements

of current issues and one of the modules has current issues related to SDGs, which students can implement or apply in their daily lives.



IT Services has incorporated “Sustainable IT” into campus operations and services that drive energy efficiency and a lighter consumption footprint. This practice would primarily affect but not be limited to our asset life-cycle management and operational practices. An example is the ‘ThinkB4Print’ campaign launched in 2019 to instil paper-saving practices amongst staff and students.

Some of these green practices may also come at an increased initial cost (in the acquisition, inconvenience, etc), but it is still a better choice compared to traditional consumption modes. The University has adopted the following green choices to strive for a greener environment through responsible consumption, even as we continually strive to deploy new technologies.

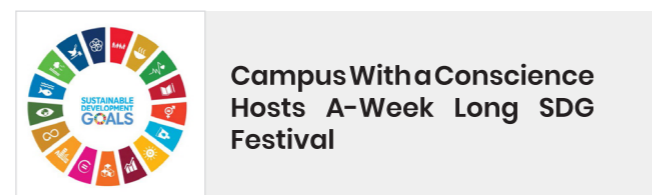


Sunway University Press Joins UN Sustainable Development Goals Publishers Compact

The Sunway University Press (SUP) became a member of the UN Sustainable Development Goals Publishers Compact, an initiative launched in collaboration with the International Publishers’ Association to inspire publishers around the world to take action and accelerate progress to achieve the UN Sustainable Development Goals (SDGs) by 2030.

As a member of the Compact, SUP voluntarily commits to the principles of sustainable practices and to publish material that champions the SDGs. In particular, SUP will continue to drive the promotion of Quality Education, alongside our commitment to Good Health and Well-Being and to Decent Work and Economic Growth. SUP’s commitment to these SDGs complements our mission to provide an avenue for access to Sunway

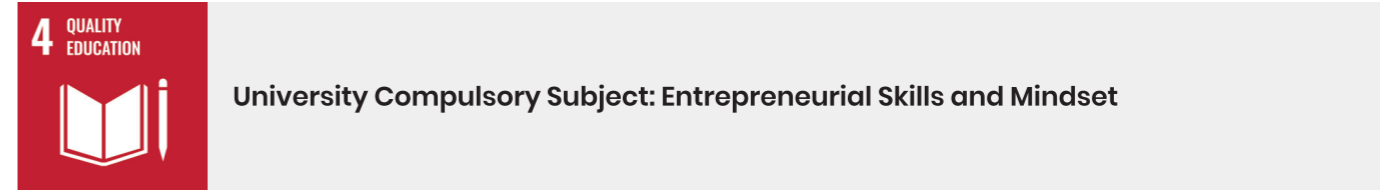
University’s intellectual property and to encourage an intellectual environment of sharing, learning, and building.



Sunway University celebrated a week-long festival of events and activations in support of the United Nations 17 SDGs and its worldwide initiative of Local Action for Global Goals 2022. This unique festival and the first of its kind in Asia featured talks, performances, interactive workshops, corporate displays on sustainability, daily flag parades, on-stage demonstrations, a sustainable marketplace and a space to connect with leaders, changemakers, activists, private sector as well as a live musical performance, including a heart-warming rendition by the children from the Spastic Children’s Association of Selangor and Federal Territory.



Sunway University has invested in solar panels for the building in 2018, decreasing energy consumption drastically over the years. It aids in maintaining the buildings low carbon footprint to eventually lead to zero carbon emissions in the building.



In today’s ever-evolving information age, acquiring an entrepreneurial mindset and skills has become imperative for university graduates, regardless of their career aspirations. Meanwhile, the Malaysia Education Blueprint 2015–2025 (Higher Education), established by the Ministry of Education, places significant emphasis on producing holistic, entrepreneurial graduates as a national objective. This initiative aims to nurture an entrepreneurial ecosystem in Malaysia, enhancing the country’s global competitiveness in light of the challenges and competition stemming from Industry Revolution 4.0. Consequently, it is essential for universities to offer entrepreneurship education to every student, regardless of their academic background.

In response to both national aspiration and industry demand, Sunway University has introduced a mandatory credit-bearing module titled ‘Entrepreneurial Mindset and Skills’ for all undergraduates, which exceeds 1000 students per semester. However, this endeavour presents a formidable challenge, particularly when it comes to delivering entrepreneurship education on such a large scale, especially in the context of experiential learning, and within the constraints of limited teaching resources. Traditionally, universities have relied on classroom or online instruction, prioritizing the teaching of business theories and case studies for large cohorts of students, often numbering over 500. Implementing experiential learning, involving hands-on group projects and mentorship becomes impractical.

In order to solve the challenges, Sunway University has developed an online game called “Paradox of Theron” (POT) to complement the ‘Entrepreneurial Mindset and Skills’ module. POT places a strong emphasis on cultivating an entrepreneurial mindset and skills such as creative thinking, problem-solving, collaboration, risk-taking, resilience and effective communication. This innovative approach enables the university to offer entrepreneurship as a subject to a large number of students through a flipped learning arrangement while allowing students to learn and practice their entrepreneurial skills and mindset within a virtual sandbox environment.

The development of POT was a collaborative effort involving Sunway University students, corporate group human resources, Sunway University faculty members, experts in academic enhancement, and a game development house. To play POT, students must form teams of 10 players and tackle challenges related to the United Nations’ 17 Sustainable Development Goals. Beyond individual creative thinking and problem-solving, students are encouraged to review and assist other team members in developing solutions (collaboration and communication). Each activity earns points, which are converted into virtual tokens that allow teams to acquire land, similar to the concept of playing Monopoly (risk-taking, resilience).





RESEARCH

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Economic, Social and Environmental Scoring Template

The School of Business has created an economic, social and environmental scoring template. The scorings collected can be used by the regulator or policymaker to enhance the regulatory framework for sustainability reporting. The template is created to collect ESG scoring from the Sustainability Reports/ Annual Reports/Integrated Reports of publicly listed companies. We created this template based on the Bursa Malaysia Sustainability Reporting Guideline (Bursa Guide) and the Global Reporting Initiative (GRI).

The ESG scoring template is used to assess the level of ESG information disclosed in the Sustainability Report/ Annual Report/ Integrated Report. The higher scoring reflects the company puts more effort into sustainability practices to achieve sustainable development goals.



3 GOOD HEALTH AND WELL-BEING

Differences in enamel surface hardness between soaking carbonated drinks and application of duck eggshell paste remineralization material

Our research addresses the intersection of health and sustainability by focusing on the restoration of tooth enamel. The demineralization of enamel, often accelerated by the consumption of acidic carbonated beverages, leads to a decrease in enamel hardness and increases the risk of dental decay. To counter this, our study investigates the use of calcium carbonate (CaCO₃) from duck eggshells—a high-calcium waste product—as a natural remineralization agent to restore enamel integrity.

This innovative approach not only has the potential to improve oral health but also embodies the essence of responsible consumption and production by repurposing organic waste into a valuable health-promoting material. By evaluating the effectiveness of duck eggshell paste in reversing enamel softening caused by acidic drinks, the research could offer a dual benefit: advancing global health and contributing to environmental sustainability by transforming waste into a resource for dental health maintenance.

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

SDGs for Malaysian States

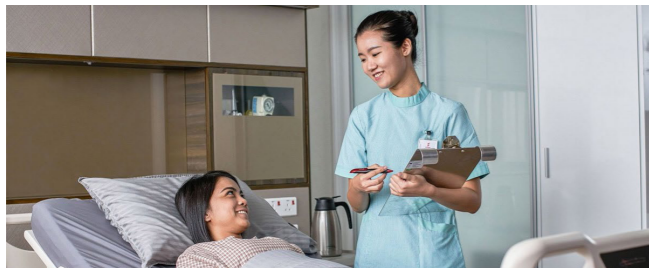
Our research community at SDSNA develops an innovative state-level SDG performance dashboard, offering an interactive and thematic exploration of each state's progress towards the Sustainable Development Goals. This tool not only provides a national overview but also allows for a granular assessment of individual goals and their corresponding indicators. Users can identify and analyze the major challenges each state faces in achieving the SDGs, making this dashboard an invaluable resource for policymakers, researchers, and the public to strategize and prioritize actions for sustainable development.

3 GOOD HEALTH AND WELL-BEING



Combating nurse burnout

Among nurses, their relentless dedication and contributions remain overlooked, leading to feelings of frustration, dissatisfaction and demotivation. Those experiencing burnout often show signs of emotional distress, psychosomatic issues, attitude shifts and behavioural concerns. This results in increased sick leave, reduced job efficiency and heightened absenteeism.



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Interview Questions of Stakeholders' Engagement in Preparing the Sustainability Reporting for Malaysian Public-Listed Companies

The research project employs structured interviews to extract valuable perspectives from Malaysian public-listed companies, aiming to construct a comprehensive framework that aligns with the Sustainable Development Goals (SDGs) for effective sustainability reporting. The interview protocol is meticulously crafted to delve into the experiences of publicly listed companies as they initiate their sustainability reporting processes, the transformational role of corporate executives into champions of sustainability, the obstacles encountered by these companies while integrating sustainability reporting into their corporate ethos, and the strategies employed by these leaders to navigate sustainability-related risks and capitalize on opportunities.

The insights garnered from the corporate participants are instrumental in shaping a robust framework that serves as a guide for small and medium-sized enterprises (SMEs) that are grappling with the integration of sustainability into their strategic planning and are committed to fostering ethical practices within their business operations. This framework is designed to support these SMEs in their endeavor to contribute meaningfully to the SDGs by embedding sustainability

at the core of their business strategies and reporting mechanisms.

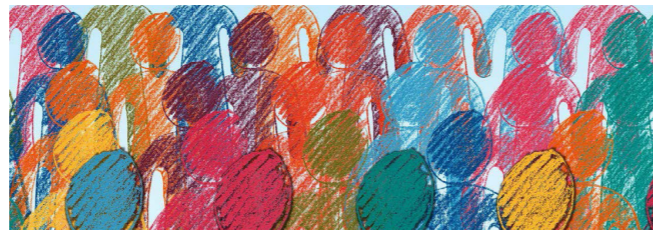
3 GOOD HEALTH AND WELL-BEING



Urban Public Knowledge Towards Sarcopenia Health Education Needs Assessment

This research project addresses knowledge gap of sarcopenia, an ageing-related health issue, through an analysis of public awareness and socio-demographic factors in Malaysia. The lack of knowledge about sarcopenia among the urban population has been identified as a significant public health concern. The study's findings highlight the urgent need for targeted health education and promotion strategies to prevent and manage sarcopenia effectively.

By pinpointing the educational gaps within the urban communities, the research paves the way for evidence-based health promotion programs specifically designed for the Malaysian context. These initiatives aim to enhance public understanding of sarcopenia, promote preventive actions, and support the global commitment to improve health outcomes, aligning with the broader objectives of the Sustainable Development Goals.



4 QUALITY EDUCATION



The Status of Education for Sustainable Development in Malaysia

In this pilot study, the Mission 4.7 team reviewed major policy documents and select primary school textbooks and curricula, and conducted interviews with a range of education stakeholders across the country. Findings from this initial report show that, while ESD themes are present in policy documents and Ministry rhetoric, there are major barriers to implementation, particularly when it comes to teacher capacity and professional development.

3 GOOD HEALTH AND WELL-BEING



The Knowledge and Attitude Medical Surgical Nursing Relates to Alertness in Giving Care to Nursing COVID-19 Patients

The purpose of this study was to analyze the relationship between the knowledge and attitudes of medical-surgical nurses and their preparedness to provide nursing care for COVID-19 patients. The long COVID-19 pandemic has exhausted nurses serving patients, resulting in a lack of preparedness for health workers. Nurse preparedness is strongly influenced by the knowledge and attitudes of nurses in dealing with problems that arise. The preparedness, knowledge, and attitudes of nurses in providing nursing care for COVID-19 patients are not yet known in detail.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Developing a sustainability reporting framework to manage the drivers of social and economic performance in the Malaysian context

Sustainability Reporting (SR) has gained momentum in Malaysia since the launch of Bursa Malaysia's Sustainability Framework in October 2015. Bursa Malaysia, a member of the Sustainable Stock Exchanges, clearly signalled that companies should consider their social responsibility seriously. The challenge has shifted from "whether" to "how" to integrate corporate sustainability into day-to-day management decisions, given, managers at all levels have significant incentives to increase short-term earnings. Thus, this study's objectives are to: 1) investigate how CEOs and boards navigate the processes in aligning strategy, structure, performance measures and rewards to effectively manage the various drivers of social and economic performance, 2) examine factors influencing CEOs and boards to promote SR, and 3) develop an appropriate SR framework that reflects the board actions to address environmental and climate change concerns. The study uses participatory action research underlying an inductively driven research using the grounded theory approach.

3 GOOD HEALTH AND WELL-BEING



Psychological problems among parents of children with congenital anomalies

This study aimed to assess stress levels among Jordanian parents of children with congenital anomalies and their relationship to three factors: depression, anxiety, and somatization. A cross-sectional survey was conducted at three hospitals in Jordan among 360 parents of children with congenital anomalies. This study found that the parents of children with congenital anomalies experience high levels of stress. Parental stress leads to many psychological problems such as somatization, depression, and anxiety.



3 GOOD HEALTH AND WELL-BEING



The Impact of Structured Kangaroo Care Education on Premature Infant's Weight Gain, Breastfeeding and Length of Hospitalisation in Malaysia

Kangaroo care is a complementary humanistic intervention based on a family-centered care model. This study investigated the effects of a locally contextualized, structured kangaroo care education program on weight gain, breastfeeding rate and length of hospitalization for premature infants.





Implementing VTOL Drone Technology and Hyperspectral Imaging to Assess Plant Health in Rural Mangrove Ecosystems in Sarawak

ASIA PACIFIC TELECOMMUNITY (APT)

This project is focused on predicting the health of plant life in the lush mangrove and nipah ecosystems of Belawai, Sarawak, Malaysia. In addition to this, the technology employed will be harnessed for artisanal fishing mapping, creating vital hotspots that pinpoint these activities at the community level. Such mapping serves as a cornerstone for promoting sustainable fishing practices, which, in turn, supports local communities in enhancing their incomes, a need that's been heightened by the economic challenges stemming from the COVID-19 pandemic.

Currently, Sarawak lacks a comprehensive database providing such critical insights. The project unfolds in two phases. The first involves the piloting of state-of-the-art 4K camera and drone technologies to capture high-resolution images of the mangrove and nipah trees, as well as artisanal fishing endeavours in this protected area. Subsequently, the captured images will be meticulously analysed to characterize the unique signature of reflectance, a key determinant of plant health. This analysis will be carried out through sophisticated pixel-based or object-based classification techniques, bringing us closer to our goal of accurately predicting plant health and mapping artisanal fishing activity.

Beyond the technical aspects, the project has garnered essential support from the Sarawak Forestry Corporation (SFC). An important facet of this initiative is the exchange of expertise between Malaysia and Japan, aimed at addressing the existing limitations in technological infrastructure in Belawai.

This project marks the beginning of a comprehensive and sustainable environmental database for the protected area, one that is uniquely tailored to the needs of rural communities in Borneo. This endeavour is not only a scientific pursuit but also a platform for collaborative research between Japan, SFC, USTS, and Sunway, further reinforcing its significance.

The culmination of this project will be a robust database featuring a set of image characteristics that serve as a reliable indicator of the health of mangrove, nipah, and artisanal fishing activities. Such insights are invaluable for research collaboration and contribute to the broader objectives of promoting sustainable ecosystems and community well-being, all in alignment with various Sustainable Development Goals (SDGs) including but not limited to Zero Hunger, Good Health and Well-being, Clean Water and Sanitation, Affordable and Clean Energy, and Life Below Water.



LaunchX – The University Accelerator Programme

The first university-led startup accelerator programme in Malaysia, LaunchX is hosted by Sunway Innovation Labs at Sunway University (iLabs Foundry). Aligning with the Higher Education Institution (HEI) Entrepreneurship Action Plan 2021-2025, LaunchX aims to curate a synergistic and holistic entrepreneurial ecosystem that supports student entrepreneurs to realise their potential towards creating quality startups and achieving sustainable growth for their business ventures.

LaunchX is open to all University student entrepreneurs in Malaysia who are working on validated innovation ideas, particularly students venture that comes with (1) validated problem-solution fit – able to prove that the idea uniquely solves a problem of specific consumer groups and that the consumers are willing to purchase, with evidence of market research, (2) a prototype, and (3) Solutions that focus on the 17 United Nation Sustainable Development Goals, particularly Net Zero Carbon. A total of 64 student startups, along with 169 student entrepreneurs, participated in the 2023 LaunchX program. These startups originated from 27 universities, across all 10 states in Malaysia. Out of these, 24 startups were selected to participate in the initial 3-month LaunchX program. Ultimately, the top 10 startups were chosen to showcase their progress on demo day, securing grants from LaunchX.

LAUNCHX



Panel for a Global Public Health Convention

AIDS HEALTHCARE FOUNDATION (AHF)

The Panel for a Global Public Health Convention unites world leaders in the mission to enhance our preparedness for infectious disease outbreaks before they evolve into global pandemics. Established in response to the COVID-19 pandemic in 2020, this initiative underscores the urgency for a global mechanism to prevent, prepare, and respond to new infectious diseases. The goal is to ensure seamless global cooperation, transparency, and compliance among nations. This entails advocating for a treaty, led by heads of state, that mandates cooperation, accountability, and adherence to agreed rules to effectively tackle public health crises.

To achieve these aims, the project collaborates with organizations such as the AIDS Healthcare Foundation, UNITE, and Club de Madrid. The primary objective is to create a strong, legally binding Convention to prevent infectious diseases from escalating into pandemics, focusing on zoonotic diseases.

Contribution to the Sustainable Development Goals (SDGs)

SDG 3: Good Health and Well-being: The project promotes global health and well-being by advocating for measures that prevent widespread pandemics and protect public health.

SDG 17: Partnerships for the Goals: Collaborations with partner organizations underscore the commitment to forging global partnerships, a core element of the SDGs.

In 2023, the project will continue advocating for principles of equity, transparency, and accountability. It aims to align International Health Regulations (IHR) amendments with the new Convention, promote essential IHR amendments, and press for increased financing for pandemic preparedness. By pursuing these objectives, the Panel for a Global Public Health Convention aims to significantly impact global efforts to prevent and respond to public health crises, thus contributing to the broader pursuit of the Sustainable Development Goals.



Sustainable Waste Management in the North-South Issue

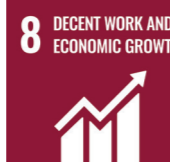
In light of Global South's environmental degradation and inequality as part of global production, we need urgent MNCs' corporate social responsibility (CSR) or extended producer responsibility (EPR) research in emerging economies to foster their environmental, social, and governance (ESG). This research aims to develop a shared waste management framework in the Global South region for corporations and other stakeholders to reduce waste by developing a circular economy for emerging economies. We will embark on multidisciplinary research to discover new ways of creating waste streams. We need an integrated effort of key stakeholders to carry out a globally inclusive decision-making process to reduce toxic waste in the Global South region. We embark on this research in Malaysia.

Our new framework has implications on how future wastes in the Global South can be handled by MNCs and stakeholders, ensuring shared responsibility across the global value chains of waste and supporting the circular economy agenda by recapturing materials that leak or are lost.



Social Companion Robots to Combat Loneliness: A Multidisciplinary Model

The purpose of the research is to look at the interplay between loneliness, social robots and young adults. The most interesting aspect of the research is to investigate how the human-robot interaction among young adults leads to the development of a non-human relationship to combat loneliness. Besides, this study aims to develop an integrated theoretical framework that includes both technical, social psychology and marketing perspectives on the adoption of social robots among young adults. This further expands the understanding of the current human-robot interaction model that mainly comes from the technical aspects of social robot features rather than understanding the customer's social and psychological needs to adopt social robots to cope with loneliness.



Embedding the Framework of Culture of Health in SMEs: A Comparative Perspective between Japan and Southeast Asia

The project aimed to examine the concept of Culture of Health and Sustainability, particularly as it relates to small and medium-sized enterprises (SMEs). To accomplish this, the project undertook a comparison of such practices between Japanese and Southeast Asian SMEs, particularly those from Malaysia, Indonesia, Thailand, and Vietnam and used qualitative research methods, including interviews, to collect data from SME respondents. The project found that the Culture of Health and Sustainability is evident in the employee and customer health pillars within SME operations. However, there is still considerable room for improvement in the community and environmental health domains. Although SMEs in these countries show a strong awareness of the importance of sustainable practices, limited financial resources, lack of support and lack of an external focus hindered their efforts.



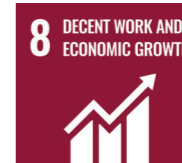
Optimizing industrial energy consumption with constraint programming and machine learning predictive models

The energy efficiency initiatives in Malaysia have not met the government's targeted energy savings, lagging behind the success rate achieved by other developed nations. High energy intensity of Gross Domestic Product (GDP) presents significant economic and environmental impacts including higher energy costs, decreasing the competitiveness of domestic enterprises in local and international markets, as well as adverse environmental changes in regions with growing industrial enterprises. In this study, the Supervisory Control and Data Acquisition (SCADA) data from an industrial process is utilized to identify energy inefficiencies and develop machine learning (ML) models to predict energy consumption to enable savings. A few machine learning techniques are adopted, including optimization algorithms to identify optimal solutions for power saving in combination with neural network and clustering algorithms. The models are trained on historical data and used to predict future energy consumption based on current process conditions. The expected outcome of this study is to demonstrate that machine learning models can accurately predict energy consumption and identify inefficiencies in industrial processes that can lead to significant energy savings, reducing costs and improving sustainability. Further, it will highlight the potential of machine learning models for improving energy efficiency in industrial processes and provide a roadmap for implementing these techniques in real-world industrial energy efficiency.



Early Disaster and Weathering System

Researchers from the School of Engineering and Technology collaborated with the Research Centre for Human-Machine Collaboration (HUMAC) in the building of an 'Early Disaster and Weather Monitoring System'. This system is aimed to provide weather and climate monitoring as well as alerts for different possible disasters such as fire, smoke, landslide, and flash floods.



Pursuing Decent Work in Malaysian Supply Chains; Investigating Labour Abuse and Developing Economic Justice for Migrant Workers

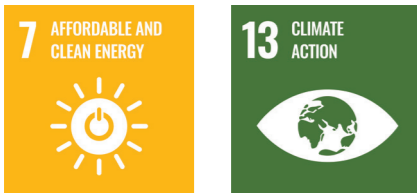
To reach the targets set out in the SDGs and the 12th Malaysia Plan, corporations need to systematically translate SDGs into day-to-day operations. This research will provide an evaluation of how this could be achieved, focusing on labour abuse and economic justice within the global supply chains that Malaysia feeds into. This is vital, as within much of the current academic literature there is a distinctive Western dominance, however, within developing countries, there are not the same social, economic or, institutional structures as in the West.

The proposed research intends to approach this challenge via two-fold methodology; a piece of empirical work, initially beginning with qualitative interviews to identify the challenges and possible solutions before moving onto quantitative data collection to address the acceptability of any solutions, this will be supported by document analysis based upon company annual reports and other secondary data to evaluate current best practices. The findings are intended to assess where implementation of labour policies has been insufficient and develop a best practice at present and where change might be enabled. The implication of the proposed research intends to take a snapshot of current labour practices in Malaysia, identify the current challenges faced and from this propose practices that develop economic justice for the vulnerable migrant labourers, hence assisting with Malaysia's pursuit of the SDGs and 12th Malaysian Plan.



Development of Amine based Functionalized Graphene as New Class of Nanofluids for the Efficient Absorption of CO₂

Various modifications of graphene surface by functionalization approaches have been followed to improve the activity of graphene for CO₂ absorption activities. Thus, it is hypothesized that this higher surface area, dispersing them in based solvents will increase the CO₂ absorption performance due to the micro-convection and shuttle effect as well as Brownian motion. To the best of our knowledge, this work will be the first of its kind to use functionalized graphene-dispersed nanofluids in varying based fluids to develop new CO₂ capturing media. The functionalized graphene will be used to formulate nanofluids by dispersing in the base fluids for implication in CO₂ absorption processes.



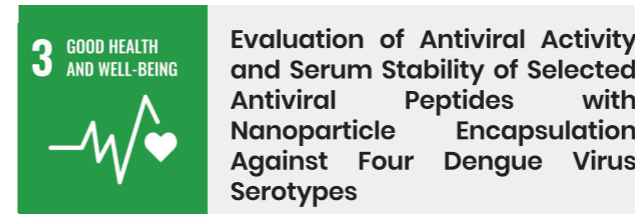
Reduction of CO₂ concentration from Biogas production process: A life cycle analysis of porous carbon pellet from a solid waste

The main objective of this project is to prepare a porous carbon-based pellet derived from agricultural waste to remove CO₂ from Biogas. The high solid waste generated from oil palm waste has the potential to be converted into value-added products or energy to generate additional profit for the palm oil industry. Carbon-based material is a hydrophobic property and has lower sensitivity toward water presence in raw biogas. In this study, palm shell waste will be converted into porous carbon material using carbonisation and steam activation to modify its surface properties. The shape of the porous carbon material will be modified using polymer binders to form porous carbon pellets to improve mechanical strength and rapid mass transfer kinetics, subsequently characterising its surface properties. Then, CO₂ adsorption behaviour will be evaluated using a laboratory-scale packed-bed unit. Finally, the SimaPro tool will be used to analyse and monitor the environmental impact performance of the life cycle analysis.



CO₂ Capture using Novel Non-aqueous green hybrid solvent of polyamine-based deep eutectic solvent and sulfolane

Carbon dioxide (CO₂), primarily emitted from the burning of fossil fuels and energy-related processes in the industry, is one of the major greenhouse gases. CO₂ emissions have a wide range of environmental and health consequences, including global warming increasing sea levels, flooding, drought, and the spread of infectious diseases. In the CO₂ mitigation process, the absorption process is the most widely used system. Chemical absorption, which uses aqueous alkanolamine, has been created and is widely utilised in the absorption process. Nonetheless, there are significant disadvantages to using an aqueous alkanolamine system, including equipment corrosion, solvent loss through evaporation, thermal and oxidative deterioration throughout the absorption-desorption cycle, and a high energy cost of solvent regeneration. The presence of water in the system has been blamed for these flaws. The use of an organic solvent instead of water in amine-based absorbents has recently been shown to have considerable benefits in terms of lowering regeneration energy and perhaps lowering corrosiveness and degradation. As a result, novel non-aqueous systems based on green solvents are required.



Evaluation of Antiviral Activity and Serum Stability of Selected Antiviral Peptides with Nanoparticle Encapsulation Against Four Dengue Virus Serotypes

Dengue is a life-threatening infection caused by dengue virus (DENV) that spreads from Aedes species mosquitoes to people, with over 400 million infections globally. Malaysia is considered a hyperendemic region, with reported 66,102 dengue cases and 56 deaths in 2022 as compared with 26,365 cases and 20 deaths in 2021. This research project aims to encapsulate selected AVPs (i.e., P3, P4, and P5F) showing promising in vitro anti-dengue activity as previously discovered by our research group using CS and PLGA, followed by their characterization. These AVPs were designed to target the envelope (E) protein found in four DENAV serotypes, which are important in viral attachment, entry, and membrane fusion. Thus, this project has the potential to provide insights into the development of new antiviral therapies for DENV infections by emphasizing the unique advantages of AVPs and the use of nanoparticles in drug delivery.



Towards Understanding and Incorporating Senior Citizens' Needs in Disaster Response Operations (UNDERSTAND)

The objective of the project is to identify the senior citizens' needs in order to optimise the design and enhance the performance of urban disaster management in Malaysia, to help build an equitable and age-inclusive disaster-resilient urban space for the ageing population. Our research findings were presented at the Lancaster University C4AR Town and Gown event on 6th October 2022 and ASEAN Education Cities 2023 on 11th-12th February 2023. The researchers were interviewed by Nanyang Siang Pau and the project was featured on the entire cover page of the feature issue on 23 November 2022. Furthermore, our systematic literature review paper was published in the International Journal of Disaster Risk Reduction (Q1, IF:4.84, CiteScore: 6.5).



Narrative transportation and trust in luxury hotels SNS marketing: The moderating role of social interaction.

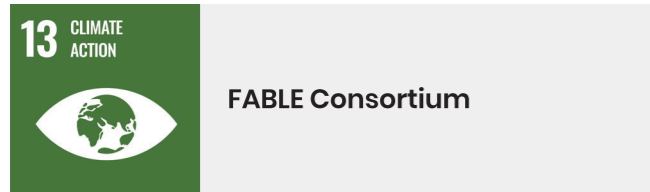
This research examines how narrative transportation (the immersive experience of getting lost in a story) influences trust in luxury hotel marketing on social networking sites (SNS). It further explores how social interaction within these platforms moderates this relationship, suggesting that conversations and engagement can amplify or diminish the effect of storytelling in building trust.



Research for ASEAN Green Future

The ASEAN Green Future project is a collaboration between the United Nations Sustainable Development Solutions Network and Climate Works Australia, and nine national research groups from across Southeast Asia (Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam). The project aims to demonstrate how sustainable, decarbonized economies offer enhanced economic development and more resilient futures for the region. It also acknowledges actions already underway and the need for financing and support.

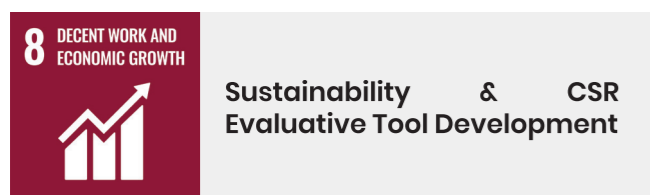




The Jeffrey Sachs Centre on Sustainable Development collaborates in the annual creation of reports for the FABLE Consortium. This consortium represents a worldwide collective of national research bodies dedicated to formulating food and land-use strategies on a national scale that are in harmony with international sustainability objectives. FABLE is instrumental in promoting collaborative problem-solving among nations. This is achieved through “Scenathons,” which are intensive scenario-building exercises, the exchange of insights regarding stakeholder engagement, the joint creation of accessible open-source tools, and the exchange of policy insights among countries grappling with analogous issues.

The work of the FABLE Consortium is categorized into four primary areas: (1) Establishing international sustainability benchmarks specific to food and land-use systems. (2) Crafting long-term domestic strategies that are sustainable and forward-looking. (3) Strengthening the capacity to simulate and model sustainable food and land-use systems effectively. (4) Developing a unified and strategic policy framework that addresses the complexities of food and land-use systems.

“ Further, Faster, Together. ”



This research initiative aligns with the Sustainable Development Goals (SDGs) by focusing on three interconnected studies that address different aspects of sustainability and corporate social responsibility (CSR), each critical to understanding and advancing global sustainability efforts.

1) Aligning with SDG 8 (Decent Work and Economic Growth) and SDG 12 (Responsible Consumption and Production), the first study examines the “Realities and Perceptions of Sustainable Tourism among Generation Z.” This research will employ concept mapping to identify and validate the objective and subjective understandings of sustainable tourism in various contexts, such as urban and coastal destinations, among participants from Malaysia and the UK. This will contribute to a better understanding of sustainable tourism practices and how they are perceived by the younger generation, who are pivotal in driving sustainable change.

2) The second study supports SDG 11 (Sustainable Cities and Communities) by “Assessing the Sustainability of Cities.” This involves operationalizing previously identified sustainability concepts to facilitate their assessment and comparison across different urban environments in Malaysia and the UK. Collaborating with the Future Cities Research Institute, the study aims to develop comprehensive scales that accurately reflect the critical components of urban sustainability. This will provide a clearer framework for cities to measure and improve their sustainability efforts.

3) The third study addresses SDG 16 (Peace, Justice, and Strong Institutions) by investigating the “Relationships between Corporate Social Responsibility, Organisational Familiarity, and Social Desirability.” This research seeks to understand how familiarity with an organization and the desire to respond in socially acceptable ways influence perceptions of CSR performance across different stakeholder groups. The findings may reveal the need for a reassessment of previous CSR research, ensuring that future CSR evaluations are accurate and reliable.

By dissecting these complex phenomena into distinct studies, this research initiative contributes to a nuanced understanding of sustainability and CSR, which is essential for achieving the SDGs. The cross-national approach, involving both Malaysia and the UK, underscores the global relevance of the research and its potential to inform international policies and practices.



Development of MXene nanocomposite using low-cost materials precursor

The study on reducing the synthesis cost of MAX phase is very limited and this knowledge gap has to be resolved. Therefore, the MAX phase will be developed by using a new precursor material (candle soot) to reduce the overall cost of producing MXene. It will be used as a carbon source for the first time together with Ti and Al elements to form MAX phase. As for scalable synthesis, a higher yield of carbon soot can be attained by burning rice husk, coal, kerosene, or by collecting diesel engine exhaust emission soot. Other alternatives from different wastes will be explored as a long-term research goal to find the best solution to produce the MAX phase.



MXenes with non-precious transition metal (iron) as electrode active material in vanadium redox flow batteries (VRFB)

In this work, a novel MXenes/non-precious metal hybrid material is synthesized using a solvothermal treatment. The combination of these two components is optimized by varying MXenes and iron loadings. It is expected that the surface area of MXene nanosheets will be further increased, and strong interfacial electrostatic attraction between the two components will contribute to the electrochemical and catalytic performance and stability. The hybrid material is predicted to exhibit a larger active surface area for redox reaction, improved electrical conductivity and good wettability for the ohmic loss/resistance reduction, and better accessibility of the redox-active materials to the electrode surface.



Operative thermal management of solar photovoltaic batteries via ZnO tetrapod enhanced phase change materials

The main objective of this research initiative is to extract heat energy from the PV system and the Battery to enhance energy production and charging performance using the ZnO tetrapods-enhanced nano-PCMs. The developed nano-enhanced PCM (NePCM) will be integrated into the rear side of the PV panel and the outer surface of the Battery. This nano-enhanced PCM will extract the excess heat from the PV panel and the Battery and is expected to enhance the PV electrical efficiency as well as battery performance. The results of the current work would enhanced electrical energy production, electrical energy storage performance, and improved life cycle of Battery and PV.

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

Biographical Database of Elected Representatives in Malaysia (1955–2022)




This is to build a database of all elected representatives at the Federal Parliament and all 13 State Legislative Assemblies from 1955 up until the 15th General Election (GE15).

This research is instrumental in both constructing a catalogue of the entire elected political class and enabling analysis of the career path of individual politicians. One important usage is identifying the small number of female elected representatives over 67 years and tracing their career path, to help find institutional solutions to improve women’s political representation.

3 GOOD HEALTH AND WELL-BEING


Development of a nursing clinical education model based on digitalization transformative learning theory for learning outcomes continuing nursing education and nursing skills for nurses in the era of the COVID-19 pandemic



Implementing digital technologies has become a policy priority worldwide among all types of education. The COVID-19 pandemic has further accelerated educational institutions’ efforts to reorganize their teaching and introduce new digital learning technologies. Although using digital technologies in higher education, including nursing, is considered a modern and innovative way of teaching and learning, uncertainty exists concerning these technologies’ actual usefulness in achieving positive learning outcomes. The aim of the study is to develop a model based on digitalization transformative theory.

3 GOOD HEALTH AND WELL-BEING


Contextualizing nurse turnover: A sustainability approach in understanding turnover motives of nurses working in the healthcare sector.



The principal purpose of this study is to improve understanding of nurse turnover motives. In practical terms, this study is both necessary and timely because chronic nurse shortages have been exacerbated by the impact of the COVID-19 pandemic, which has resulted in a global shortage of qualified nursing staff. This has directly affected the provision of healthcare to patients, influenced nurse morale, and has an enormous impact on the well-being of society in general. With this in mind, a sustainability approach to attracting and retaining qualified nursing staff is warranted. The research shall consist of an online survey administered to the nursing staff in two time periods, phase one shall consist of HR practices and processes and phase two shall consist of outcomes.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION


Configuring Ecosystems for SMEs To Achieve Sustainable Development Goals (SDGs): A Co-design study in Botswana and Malaysia



The findings from these workshops were compared to similar workshops conducted in Botswana. Our comparative analysis shows that co-design approaches are significant in helping SMEs to collaboratively understand and access resources embedded in local ecosystems, thus bringing them closer to achieving sustainable development goals. The discussions add to the literature on how SMEs and policymakers can use co-design to reveal important factors that affect framework conditions at the local level and how policies developed at the national level can be tailored to local conditions to support SMEs ecosystems and, by large, UN sustainable development goals.

3 GOOD HEALTH AND WELL-BEING

Promoting mental health among at-risk adolescents in Malaysia



Adolescents from low-income families and socially marginalised groups have the highest prevalence of anxiety and depression (Institute for Public Health, 2017) which is often linked to rapid societal changes, including urbanisation. Healthcare for adolescent mental health is a neglected area. In its 2021 national budget, less than 2% of the country’s total budget was allocated to address mental health problems, violence prevention and substance abuse (Ministry of Finance Malaysia, 2019). It is therefore not surprising that there are high levels of unmet mental health needs due to a lack of human resources, with between 0.41 to 0.61 mental health workers per 100,000 residents (Ministry of Health, 2017). Furthermore, stigma is a major barrier to help-seeking. While targeted prevention studies of anxiety or depression in schools exist, they remain limited in number and quality and have not systematically focused on both effectiveness and implementation processes. Furthermore, given the complexity of the school context and differences in support systems among ethnic groups in Malaysia, implementation processes may vary across Malaysia, offering us an opportunity to examine factors that could influence implementation outcomes. Thus, the overall aim of this study is to determine the way in which anxiety and depression are perceived/understood by a range of key stakeholders and to explore implementation barriers/enablers of an evidence-based programme for preventing anxiety and depression in young people (Super Skills for Life) (Essau, Sasagawa, Jones, et al, 2019).


MYR 3.7 million from Kavli Trust Programme on Health Research
Promoting mental health among at-risk adolescents in Malaysia



Co-Investigators (clockwise from top left): Helder Dodd (University of Exeter), Alejandro de la Torre, (Universidad Complutense de Madrid), Suzaliy Wahab (Universiti Kebangsaan Malaysia), Noor Azimah Muhammad (Universiti Kebangsaan Malaysia), Ahsin Ng Lai Oon (Surrey University) Hazreen Abdul Majid (Universiti Malaya), Nik Daliana Nik Farid (Universiti Malaya), Suwalbah Zakaria (Universiti Malaysia Sabah), Ting Chuong Hock (Universiti Malaysia Sarawak), and Julia Lee Ai Cheng (Universiti Malaysia Sarawak)

11 SUSTAINABLE CITIES AND COMMUNITIES

Giving is Getting: Exploring Possibilities of Time Bank Concept in Malaysia




Aging is a global issue and people often worry about it. Hence, various studies in relation to ageing have been done in Malaysia, including ageing and mental health, environmental and managerial studies on ageing in place, policies and programmes for the elderly, perceptions of ageing and successful ageing, and factors impacting retirement planning behaviour. Given that there is increasing popularity of time banking (TB) in other countries and the Malaysian population is ageing, there’s a clear need to explore the possibility of introducing TB in Malaysia. This research aims to take the first step to understanding the key concerns of post-retirement life, to examine the perceived benefits and concerns as well as the intention to participate in TB in Malaysia with the long-term goal aiming at creating a TB system in Malaysia.



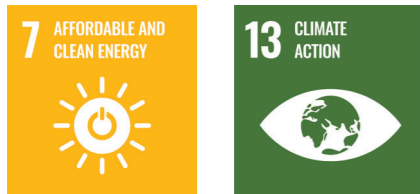
4 QUALITY EDUCATION

Mission 4.7 Ministerial Panel



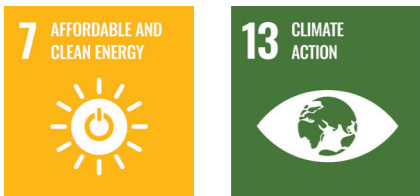
The SDG Academy, under the banner of Mission 4.7, supported the convening of Ministers of Education in NYC alongside the UN Transforming Education Summit in September 2022.





Fabrication of heteroatom-doped porous carbon using various green amino acid salts for CO₂ adsorption

This project proposes the use of various types of potassium-based amino acid salts to improve the surface properties of porous carbon through a heteroatom doping process (mixing and heating treatment) for CO₂ capture application. All adsorbents will be characterized for their surface properties and evaluated for CO₂ adsorption performance using a packed-bed system. The results from this project are expected to provide new fundamental knowledge, particularly in the development of porous carbon using the green approach for CO₂ capture, which is in line with UN SDGs (7 and 13) and the Malaysian Green Technology Master Plan.



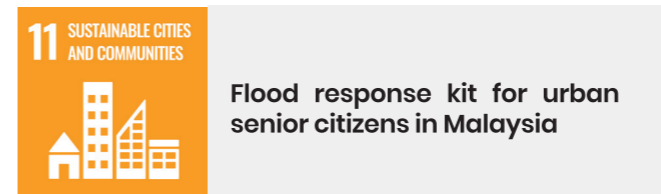
Unlocking the potential of spent coffee grounds for value-added products and carbon capture sustainability

This research project seeks to explore the transformation of spent coffee grounds (SCGs) into value-added products for cosmetics and nutraceuticals while also producing biochar to combat environmental pollution. SCGs are rich in bioactive compounds that benefit skin health and overall well-being, making them valuable resources. This endeavour aligns with planetary health, emphasizing the interconnectedness of human health, environmental sustainability, and economic prosperity. Additionally, SCGs can aid sustainability by reducing greenhouse gas emissions through thermochemical processes like pyrolysis, converting SCGs into biochar. This approach offers simplicity, cost-efficiency, and rapid desorption kinetics. It supports Sustainable Development Goals (SDG) 12 (responsible consumption and production) and SDG 13 (climate action), promoting sustainability and waste reduction by converting coffee waste into valuable natural products.



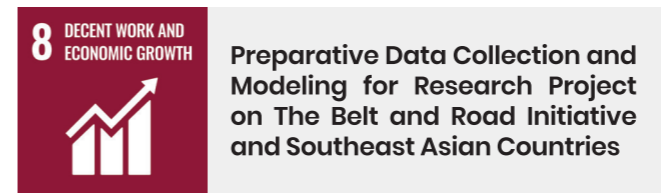
Waste Valorization Tackling Carbon Emissions in ASEAN

This collaboration grant consists of 5 subtopics which include the development of novel adsorbents from solid waste for CO₂ capture, methanol synthesis via CO₂ hydrogenation using a tailor-made catalytic membrane reactor, development of electrocatalyst for CO₂ conversion into value-added products, operando spectroscopy for in-situ analysis of CO₂ conversion and environmental and economic assessments of carbon capture and conversion processes



Flood response kit for urban senior citizens in Malaysia

The objective of the project is to produce a flood response kit prototype specifically designed for urban senior citizens in Malaysia. Our initiative aims to address the urgent need for effective disaster preparedness and response among this vulnerable population.



Preparative Data Collection and Modeling for Research Project on The Belt and Road Initiative and Southeast Asian Countries

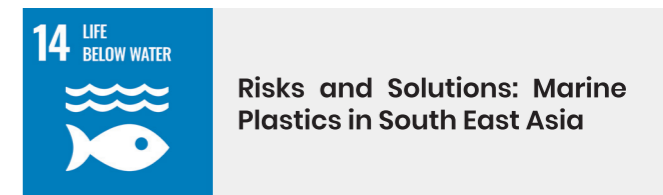
This research will study the impact of the Belt and Road Initiative (BRI) on the Global Value Chain (GVC) in East Asia and ASEAN. It will cover the general discussion of the impact of BRI on GVC from regional and global perspectives. It will discuss the impact from a policy perspective in improving the GVC activities in the region.

The research will also focus on regional and industrial perspectives in terms of shifts in GVC effects from BRI in the region including East Asia, China, Japan and ASEAN. It intends to cover industries: manufacturing, services, construction and agriculture, by collecting trade, firm and country-level data.



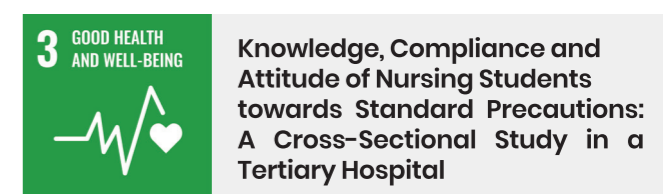
Dissemination of Decentralized Energy System: Comparison and Dialogue between Japan and Malaysia

Sunway University has made a comparison and dialogue between Japan and Malaysia to research about the dissemination of decentralized energy system. This research aims to study the applications of distributed energy systems to provide new knowledge on the potential of distributed energy systems in Japan and ASEAN and to strengthen collaboration between practitioners on PV battery systems to be installed at the Orang Asli sites.




Risks and Solutions: Marine Plastics in South East Asia

The project focused on Marine Pollution and emphasised plastic and microplastic contamination. It is sub-divided into three work packages. Work Package 1 explores the detection, degradation and translocation of plastic. Work Package 2 deals with the hazards, risks and impacts of marine plastic while Work Package 3 will propose intervention, mitigation and adaptation.



Knowledge, Compliance and Attitude of Nursing Students towards Standard Precautions: A Cross-Sectional Study in a Tertiary Hospital

Knowledge, compliance, and attitudes toward the standard precaution guidelines are crucial to avoid contamination not only for patients but also for healthcare providers. Little is known regarding Malaysian nursing students' knowledge, compliance, and attitudes toward standard precaution guidelines. The purpose of this study was to look into Malaysian nursing students' knowledge, compliance, and attitudes towards standard precaution guidelines.



Living within the Doughnut in Ipoh: Capturing Learnings and Building Capacity

YAYASAN HASANAH

In pursuit of sustainable development, Sunway University is undertaking a project aimed at capturing invaluable knowledge and insights. This endeavour is founded on generating evidence-based policy recommendations that align with the global Doughnut Economics (DE) model. The project encompasses a comprehensive baseline study and a series of evidentiary reports, all of which will be instrumental in shaping sustainable policies.

Furthermore, this project is committed to building capacity within Perak state government officials, private sector entities, and civil society organizations. The focus extends to a range of critical areas, including planetary health, sustainability, biodiversity conservation, and the principles of doughnut economics.

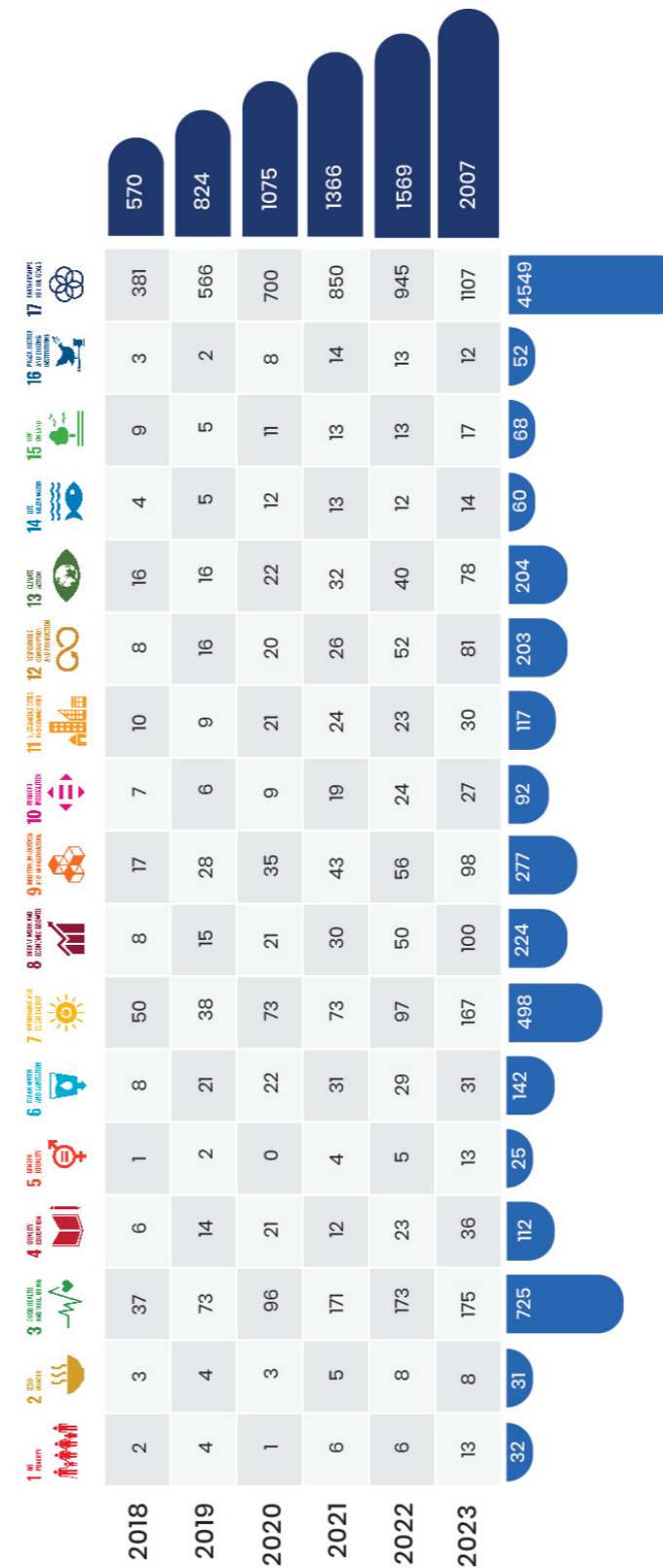
Under the Perak Sejahtera Plan 2030, the DE model serves as a guiding benchmark. It empowers Perak to play a pivotal role in ensuring the planet's natural boundaries are not exceeded. These boundaries encompass critical issues such as ocean acidification, climate change, ozone layer depletion, air pollution, biodiversity loss, land use transformation, freshwater production, nitrogen and phosphorus aging, and chemical pollution. In a DE-inspired approach, the Plan evaluates the quality and achievement of social foundations, including peace, justice, education, health, and more. In harmony with DE principles, the Plan introduces twenty-one social foundations bundled as the Perak Wellbeing Index.

To ensure the ongoing relevance and applicability of DE principles and practices, the project commits to adapting the Doughnut Economics approach to the local context of Ipoh. This will be achieved through active engagement, real-time learning exercises, the production of relevant documentation, and capacity-building initiatives led and coordinated by Sunway University and Institut Darul Ridzuan. This adapted model will serve as the definitive measurement tool for assessing Ipoh's progress towards meeting societal needs while safeguarding planetary boundaries, in alignment with the city's enduring pursuit of sustainable development.

Through this collaborative initiative, Sunway University and Institut Darul Ridzuan are poised to bolster the development and subsequent implementation of the Perak Sejahtera Plan 2030, spanning from 2022 to 2030. The project is set to provide a multifaceted support system, ranging from leadership and documentation to comprehensive analysis, effective coordination, and extensive capacity-building for the state's monitoring plan. This collective effort aims to facilitate the successful implementation of the Doughnut Economics model, ultimately serving as a catalyst for the realization of the ambitious 2030 Plan, while profoundly contributing to a myriad of Sustainable Development Goals.



SDG PUBLICATIONS IN ACTION (2018-2023)



The table data presents trends in research paper publications across various Sustainable Development Goals (SDGs) spanning six years, from 2018 to 2023. Throughout this period, specific goals, such as those related to health, energy, and innovation, have consistently attracted the attention of researchers. Notably, objectives centred on ensuring good health and promoting access to clean energy have maintained their prominence in sustainable development endeavours.

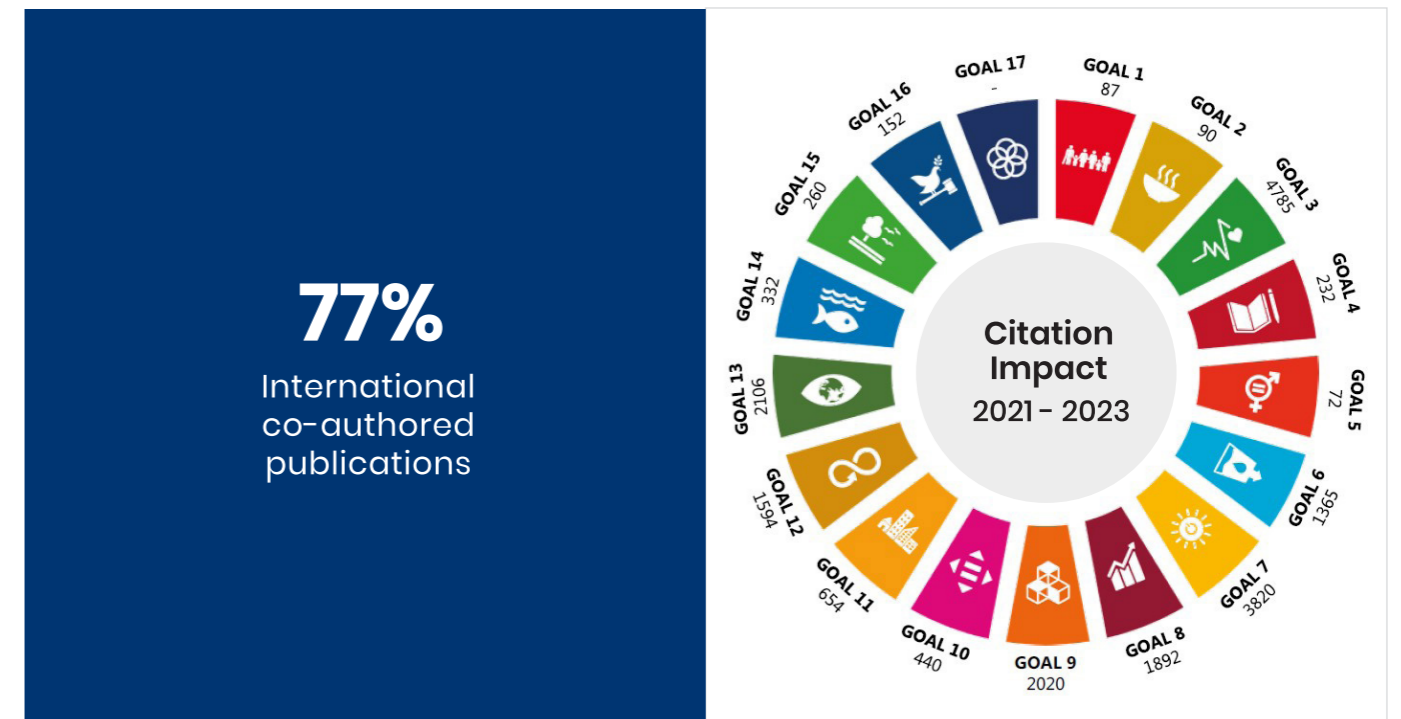
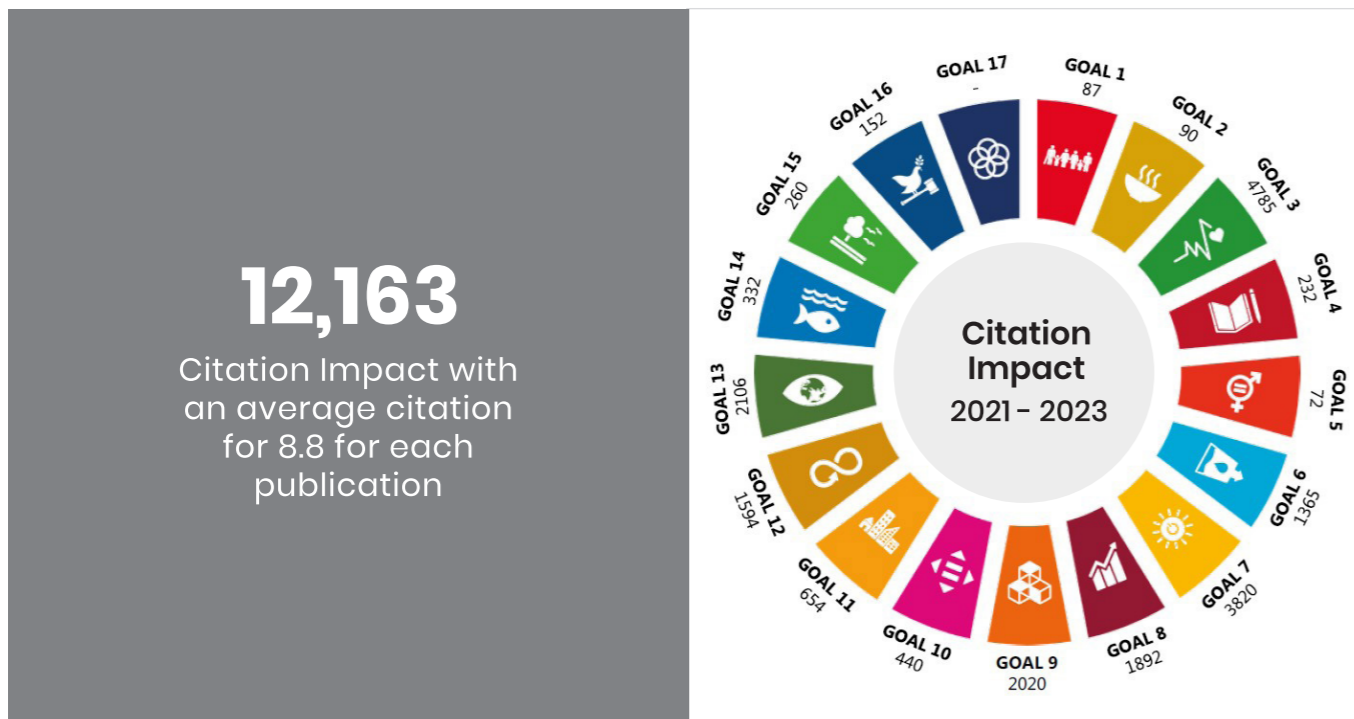
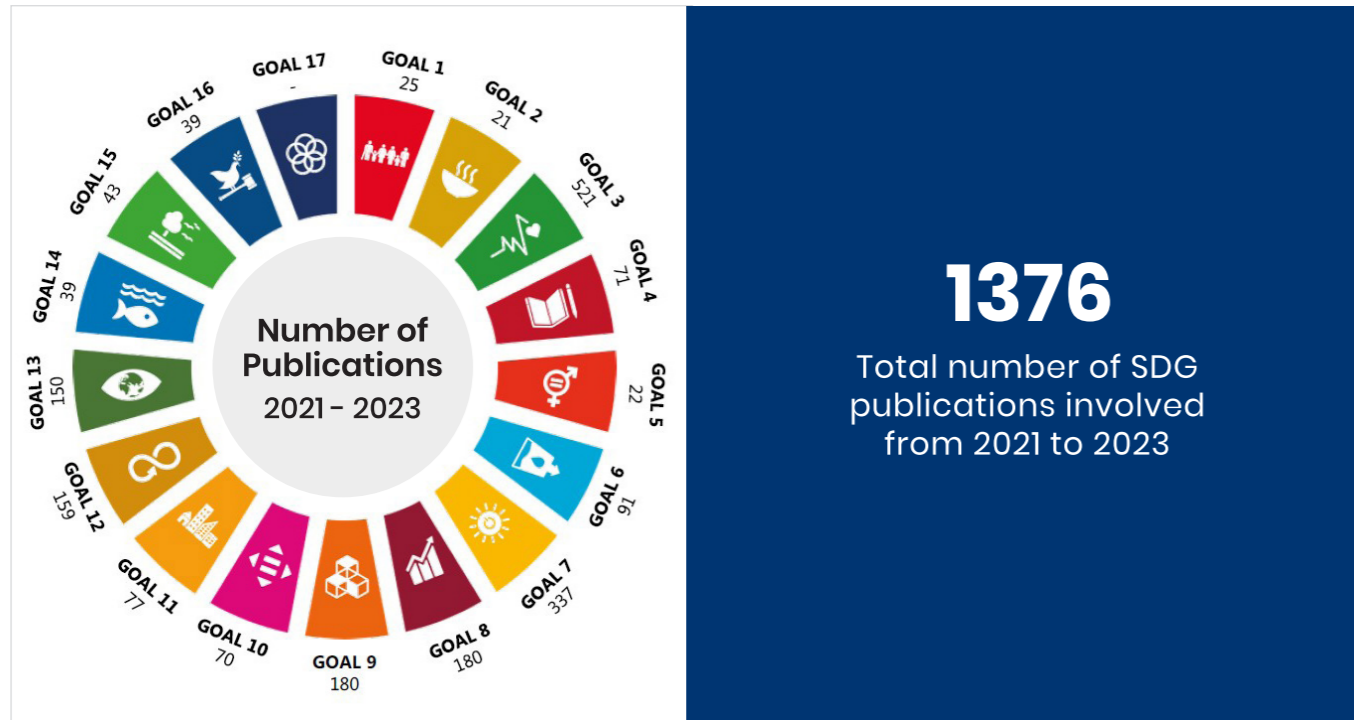
A discernible upward trajectory is evident in research concerning goals like poverty reduction, hunger eradication, and economic growth. This trend underscores a sustained commitment to addressing these critical challenges and effecting meaningful advancements.

Moreover, sustainable cities and climate action have emerged as focal points of research growth. This phenomenon mirrors the increasing urgency in dealing with issues related to urban sustainability and the impacts of climate change. The theme of fostering partnerships for sustainable development remains a consistent highlight. The emphasis on collaboration within the framework of SDG 17 underscores its indispensable role in facilitating progress across all goals.

In summary, these research trends provide insights into the multifaceted landscape of sustainable development. By acknowledging both the areas of concentrated effort and identifying existing gaps, a more informed approach can be taken in shaping global initiatives to drive significant progress across all Sustainable Development Goals.

HIGHLIGHTS OF PUBLICATIONS

Data extracted from SCOPUS for January 2021 - September 2023





Advancing Sustainable Development: MOHE-Sponsored Research Projects

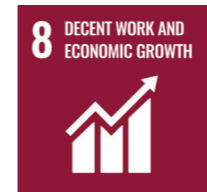
FUNDAMENTAL RESEARCH GRANT SCHEME

The Ministry of Higher Education has awarded 8 research projects under the Fundamental Research Grant Scheme, each designed to drive progress toward the UN Sustainable Development Goals (SDGs). These projects encompass a wide range of fields, addressing pressing issues and holding the potential for far-reaching impact.

One of these projects delves into the influence of microplastics on inflammatory bowel disease (IBD) in the Asian context, examining how environmental factors like microplastic contamination may affect the severity and development of IBD. Another project focuses on improving cognitive function in both young and elderly Malaysians, aiming to mitigate cognitive decline through cooperative task engagement and inter-brain synchrony. Additionally, a project explores the future of work environments, emphasizing the connection between well-being, work cultures, and physical workspace post-pandemic.

In the realm of healthcare, several projects aim to enhance our understanding and management of health issues. One project investigates the potential of nickel(II) complexes to combat dengue virus, striving to uncover their mechanisms of action and improve therapeutic options. Another project delves into the role of exosomal miRNAs in regulating B cell activation and autoantibody production in individuals with rheumatoid arthritis. Additionally, a study examines the interaction between gut microbiota and the host immune system in non-small cell lung cancer patients to understand their response to immunotherapy. Furthermore, an enhanced metaheuristic-based deep learning model is being developed to improve the detection and prediction of epileptic seizures.


Lastly, a project focuses on promoting sustainable fish farming in aquaculture, seeking to combat oxidative stress-induced infertility in zebrafish. By addressing various pressing issues across diverse fields, these projects align with multiple SDGs, reinforcing the commitment to sustainable development and societal well-being.



EAEA-17 International Convention Topic: Growth, Resilience and Sustainability: Asian Dynamism in an Uncertain World

The theme of the Convention is: "Growth, Resilience and Sustainability: Asian Dynamism in an Uncertain World"

We bring together 300+ policymakers, leading economists and world-class academics from around the world to present and discuss their papers on the applied economics of East Asia and the Asia Pacific.



Poverty Alleviation Forum

The forum identified the following areas for improvement to eradicate poverty in Malaysia. First, improve the accuracy of the poverty database. Second, ensure that poverty alleviation workers are passionate and adequately skilled. Third, adopt innovative approaches to assist the poor to generate more income such as providing skills training to obtain employment which is less risky than starting a business. Fourth, having tailored strategies for the poor with unique needs such as the Orang Asli community, the rural community in Sabah and Sarawak, and small-scale farmers and fishermen.



The launch of the "Malaysia's 15th General Election" Special Issue of the Round Table, The Commonwealth Journal of International Affairs Forum on "Political Stability in Hung Parliament"


This was the launch of the Special Issue, followed by a public forum featuring a keynote by the President of the Senate and three minister-level panellists on how to advance political stability in the context of hung parliament and post-election coalition governments.



2023 ASEAN Workshop on Sustainable Development

The ASEAN Ministers Workshop on Sustainable Development (AMW) was inaugurated in 2017 by the Jeffrey Cheah Foundation and UN Sustainable Development Solutions Network (SDSN) to convene the relevant Ministers, stakeholders, and subject matter experts to:


- share country experiences on moving each SDG forward (e.g. each country's strategy on increasing economic dynamism and the outcome);
- discuss what collective regional projects should be implemented in order to facilitate individual national efforts on the SDGs, and climate mitigation and adaptation (e.g. an ASEAN-wide electricity grid would ensure a cheaper and more reliable supply of green energy to all; and an ASEAN-wide high-speed rail system to replace medium-distance air flights);
- formulate innovative proposals to greatly scale up the financing to bring about green transformation (e.g. Brazilian President Lula's proposal to create an OPEC for Rainforests for a more efficient global carbon-credit market, and the use of blended financing in increasing the capital base of development banks to scale up their mobilization of private sector investments in green projects); and
- establish plans to deliver Education for Sustainable Development at all levels in society to deploy the knowledge, expertise and values needed to ensure all SDGs can be achieved.



4 QUALITY EDUCATION

UN ECOSOC Partnerships Forum Side Event: “Pandemic pivots: How lessons from the COVID-19 pandemic can improve the future of education”

Supporting the UN 2023 ECOSOC Partnership Forum’s theme of “Accelerating the recovery from the coronavirus disease (COVID-19) and the full implementation of the 2030 Agenda for Sustainable Development at all levels,” SDSN hosted a side event titled “Pandemic pivots: How lessons from the COVID-19 pandemic can improve the future of education.” The event brought together representatives from policy, research, and practice to share their reflections on these “pandemic pivots” and their hopes for the future.




13 CLIMATE ACTION

Sunway-MIT Collaboration Seminar 2022

Recognising the importance of these emerging technologies, the Centre for Carbon Dioxide Capture and Utilization (CCDCU) and the EuroAsia Carbon Dioxide Capture and Utilization Network (EACO2CUNet) of Sunway University, Malaysia in collaboration with Gallant Research Group of MIT are organising a 2-day seminar on “Emerging Technologies for CO2 Capture and Utilization.” This seminar is organized within the framework of an International Project, involving Sunway University and Massachusetts Institute of Technology (MIT). International speakers from the USA, UK, Greece, Singapore, Korea, UEA, Pakistan, and Indonesia along with speakers from Malaysia will be presenting and discussing the most recent innovations, trends, techno-economic aspects and concerns in particular challenges encountered and solutions adopted in the field of Carbon Dioxide Capture and Utilization.


This seminar demonstrates the commitment to support the United Nations (UN) Sustainable Development Goal (SDG), particularly SDG13 on climate action, SDG9 on industry innovation and infrastructure and SDG7 on ensuring access to affordable and clean energy.



4 QUALITY EDUCATION

1st Sunway-Asian/Oceania Radiation Physics Networking Workshop or 5th International Forum on Advances in Radiation Physics

Over the period of 27th to 29th November 2022, the Sunway University Research Centre for Applied Physics and Radiation Technologies hosted an event initially planned as the 1st Sunway-Asian/Oceania Radiation Physics Networking Workshop. The GRC is a not-for-profit organization, as is the Jeffrey Cheah Foundation that funds Sunway University. That funding has been central to the success of the event, a matter recorded herein and strongly appreciated. As a result, by way of invitations, we now have an improved understanding of regional efforts taking place within the broad remit of what one might call the radiation sciences. Clearly, this is a work in progress, the meeting provided a forum which at the regional level is looking to help realize the greater potential of our shared aspirations, knowledge, facilities, human resources and capacity to attract funding. In organizing the meeting, it was an honour to call upon the collective wisdom of Y.M. Raja Dato’ Abdul Aziz Raja Adnan (formerly Director of Nuclear Security IAEA), Prof. Christopher Chantler (University of Melbourne), Prof. Mohammed Alkhorayef (King Saud University) and Assoc. Prof. Thomas Osipowicz (Director, Centre for Ion Beam Applications, National University of Singapore), graciously accepted the invitation to become advisor to the meeting, as well as in two cases participating in the organization of the meeting. The meeting eventually evolved to becoming the 5th International Forum on Advances in Radiation Physics (IFARP-5), capturing the interest of the International Radiation Physics Society. The IFARP meetings series are intended to provide timely regional updates covering the latest radiation physics developments and emerging ideas within the underpinning science and radiation technologies.



1st Sunway-Asian/Oceania RADIATION PHYSICS NETWORKING WORKSHOP

and International Radiation Physics Society 5th International Forum on Advances in Radiation Physics (IFARP-5)

ONLINE
27th Nov | 3:00 pm
2022 | 5:30 pm

FACE TO FACE
28 - 29th Nov | 8:00 am
2022 | 5:00 pm
GC HALL 1

Updates on the recent radiation physics developments in healthcare and industry
Committee: Distinguished Prof. David A. Bradley, Chair
Prof. Mayeen U. Khandaker, Dr. Chen Hong Tsung, Dr. Sam Sook Ee

SUNWAY UNIVERSITY
APPLIED PHYSICS & RADIATION TECHNOLOGIES
SUNWAY UNIVERSITY



7 AFFORDABLE AND CLEAN ENERGY

Seminar on Alternatives Energy Sources and Sustainability of Minerals Supply Chains in Finland

Małgorzata Szlachta is a Senior Scientist at the Geological Survey of Finland (GTK). She is also affiliated with the Wrocław University of Science and Technology in Poland (WUST), where she holds the position of Assistant Professor at the Faculty of Environmental Engineering. She got her postdoctoral experience from Utrecht University in the Netherlands. During her career, she conducted research at the European Synchrotron Radiation Facility in France and the University of Malaya in Malaysia. She received her Master’s and Doctorate diplomas from WUST in the discipline of Environmental Engineering, and her post-doctoral degree of Doctor Habilitated (Associate Professor position) in Environmental Engineering, Mining and Energy is pending.




SEMINAR ON ALTERNATIVE ENERGY SOURCES & SUSTAINABILITY OF MINERALS SUPPLY CHAINS IN FINLAND

Dr. Małgorzata Szlachta

Organized by:
Sunway University
Applied Physics & Radiation Technologies

Her expertise is in the physicochemical (adsorption, ion exchange) and electrochemical treatment of water and industrial wastewater and the recovery of nutrients and valuable elements from side streams.



13 CLIMATE ACTION

Keynote Speaker at 33rd Symposium of Malaysian Chemical Engineers (SOMChE) 2022

SOMChE 2022 is jointly organised by Heriot-Watt University Malaysia with the Institution of Chemical Engineers (IChemE). The theme of this conference is: Empowering & Building Resilience in Achieving Sustainable Development Goals. The seventeen (17) UN Sustainable Development Goals (SDGs) form the blueprint to achieve a more sustainable future. However, global challenges such as poverty, inequality, climate change, environmental degradation, peace, and justice need to be addressed. Viewing the challenges that we are facing; it is important for us to build resilience and work together to achieve the SDGs.



13 CLIMATE ACTION

The 2nd Euro-Asia Conference on CO2 Capture and Utilisation

Recognizing the importance of this issue, the Centre for Carbon Dioxide Capture and Utilization (CCDCU) of Sunway University is organizing the 2nd Euro-Asia Conference on CO2 capture and utilization (EACCO2CU) will be held virtually on 6th - 8th December 2022. This conference demonstrates our commitment to support the United Nations (UN) sustainable development goals (SDGs), particularly SDG13 on climate action, SDG9 on industry innovation and infrastructure and SDG7 on affordable and clean energy. This event offers a unique platform for academicians, researchers, industry experts, and policymakers to meet, share their knowledge and innovative ideas as well as discuss the latest trends and challenges in CO2 capture and utilization technologies.




ASEAN Participants Sponsorship
The winner for best 10 abstracts submitted by students and Early Career Researchers (ECR) who obtained their PhD the latest in 2018 from selected ASEAN countries

Best Presentation Award
Cash prizes for best presentation award competition

Sponsors
Hibiscus Petroleum, BRUKER, In Vivo, berqat

Plenary Speakers
Prof. David S. Lee, Prof. Armin Engel, Prof. Christopher Chantler, Prof. Mohammed Alkhorayef, Prof. Thomas Osipowicz, Prof. Dr. Beata G. Gajda, Prof. Dr. Sushant Kishore, Prof. Dr. Sushant Kishore, Prof. Dr. Sushant Kishore, Prof. Dr. Sushant Kishore



17 PARTNERSHIPS FOR THE GOALS

Guest Lecture - Impact of Nanomaterials on Product Development: A Decade’s Overview

The major focus of the guest lecture was to enhance the product development skills of students and research scholars which will support the transfer of technology from laboratory to commercial end. The guest talk specifically presented the major hurdles and the impact of nanoparticles in product development and the techniques to overcome the hurdles.

13 CLIMATE ACTION



Speaker at the webinar of Ruang Bincang Energi (RuBEn)

Supporting the UN 2023 ECOSOC Partnership Forum's theme of "Accelerating the recovery from the coronavirus disease (COVID-19) and the full implementation of the 2030 Agenda for Sustainable Development at all levels," SDSN hosted a side event titled "Pandemic pivots: How lessons from the COVID-19 pandemic can improve the future of education." The event brought together representatives from policy, research, and practice to share their reflections on these "pandemic pivots" and their hopes for the future.



The G20 Presidency: Critical Role and Robust Global Cooperation to Achieve a Net-Zero

Dr. Oki Muraza
Senior Vice President, Research & Technology Innovation, Pertamina

Dr. Munawar Khalil
Direktur Riset dan Pengembangan, Dosen Departemen Kimia, Universitas Indonesia

Cahyanti Ekaputri
Chief Development Officer, Bincang Energi

Sunday, 18 December 2022 | 09.00-12.00 WIB

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4 QUALITY EDUCATION



Webinar Series - Route to be a Highly Cited Researcher

Citation impact measures the importance of a particular work in a specific field. It also reflects the impact of an author, an article, or a publication. High-quality research and publications are more likely to result in higher citations. It is an important aspect of academic life and contributes substantially to the visibility of an organization. There have also been a number of unethical/unprofessional practices in the area of citation impact, which will be discussed. In this webinar, Top 1% Highly Cited Researchers and Highly Cited Researchers (Engineering) by Clarivate Analytics, and the World's Top 2% Scientist listed by Stanford University will share their experiences and tips in becoming highly cited researchers adhering to an ethical code of conduct, as well as the challenges and factors that influence the impact of citations.


13 CLIMATE ACTION



ITB - IEAGHG Summer School Program on Carbon Capture, Utilisation and Storage

The Summer School is a great opportunity for networking and informal discussion with a range of experts attending (over 20 from both industry and research) who are all world-leading scientists in a wide range of fields.


11 SUSTAINABLE CITIES AND COMMUNITIES



Women's entrepreneurship in the hospitality and tourism industry


As experiential purchases (i.e., the acquisition of an event to live through, such as a concert) make people happier than material purchases (i.e., the acquisition of tangible objects, such as jewellery) of the same value, Experience will occupy an important place in tourism and events, which indicates the possibility of creating new attractive tourism and event products together with consumers. This presentation describes how Experience Design Management can ensure services, people, places, performances or even physical goods can have an added 'experiential' element.

5 GENDER EQUALITY



Experience Design and Management in Tourism and Events

Research often portrays women as weaker entrepreneurs in the hospitality and tourism (H&T) industry. This presentation sheds light on women's entrepreneurial success in H&T by examining four key themes and related success factors: (1) motivations that lead women to become entrepreneurs, (2) barriers they face, (3) strategies, and (4) governmental policies to support and promote women's success in entrepreneurship. Our findings suggest that financial and legal support, training, and political, social, and cultural backing are among the consistent success factors examined in previous studies. However, the authors are silent on how the four key themes can be aligned to support women to succeed in H&T entrepreneurship. The presentation provides scholars with a template for future research that starts from the identifiable success factors. In addition, this work also provides practitioners such as policymakers and industry leaders with a better understanding of how to reduce barriers to women's entrepreneurship.



SUNWAY UNIVERSITY School of HOSPITALITY & SERVICE MANAGEMENT
ORGANISED BY THE ASIA PACIFIC CENTRE FOR HOSPITALITY RESEARCH (APCHR)

WOMEN'S ENTREPRENEURSHIP
IN THE HOSPITALITY AND TOURISM INDUSTRY

by Assoc Prof Nellie Swart
University of South Africa

1st JULY FRI
2.30PM-3.30PM | zoom


Research often portrays women as weaker entrepreneurs in the hospitality and tourism (H&T) industry. This presentation sheds light on women's entrepreneurial success in H&T by examining four key themes and related success factors: (1) motivations that lead women to become entrepreneurs, (2) barriers they face, (3) strategies, and (4) governmental policies to support and promote women's success in entrepreneurship. Our findings suggest that financial and legal support, training, political, social, and cultural backing are among the consistent success factors examined in previous studies. However, authors are silent on how the four key themes can be aligned to support women to succeed in H&T entrepreneurship. The presentation provides scholars with a template for future research that starts from the identifiable success factors. In addition, this work also provides practitioners such as policy makers and industry leaders with a better understanding of how to reduce barriers to women's entrepreneurship.

SPEAKER'S PROFILE

Nellie Swart is an Associate Professor in Tourism at the University of South Africa, and a Certified Meeting Professional. She holds a DCom in Leadership Performance and Change (University of Johannesburg). Nellie authored and co-authored several accredited articles and book chapters. She has two community engagement projects in collaboration with the National Department of Tourism and is the chairperson of the Tourism Educators South Africa (TESA) executive committee. She has organised a few local and international conferences.

TO REGISTER, PLEASE GO TO bit.ly/APCHR-RSS4-2022
SHOULD YOU HAVE FURTHER INQUIRIES, CONTACT US AT apchr@sunway.edu.my

8 DECENT WORK AND ECONOMIC GROWTH



The future of business events or M.I.C.E industry in Asia Pacific

Business events (MICE industry) have been a key sector of the tourism and hospitality landscapes across numerous countries, including the Asia Pacific region. Such events bring in large socio-economic benefits, as delegates tend to be of a high-yield nature (large expenditure and extended length of stay). However, the COVID-19 pandemic has wrecked the sector, and these are turbulent times in navigating the 'next/new' normal in business events. In this seminar, the presentation will examine the competitiveness of the Asia Pacific region in terms of business events, how the world of hybrid events is around to stay, and what the future of MICE events looks like, including legacy outcomes.

13 CLIMATE ACTION



ASEAN Future Leaders SDG Workshop

Sunway University has offered this virtual flagship programme in the context of SDGs which convenes undergraduate students from eight ASEAN nations. This virtual programme comprises teaching sessions on SDGs in general, particularly Climate Change, along with a self-directed project schedule for students to develop a statement of aspirations that may be delivered at the Conference.

3 GOOD HEALTH AND WELL-BEING



Finland-Asia Network for Sustainable Experience Design Education Workshop

In this talk, the speaker has shared the development of a child developmental screening tool using AI technology that Sunway researchers and Japanese EduTech AI company, ToyEight developed.



11 SUSTAINABLE CITIES AND COMMUNITIES



Sustainable tourism for host-children: Exploring Cambodian host-children's perception of tourism impacts on their QOL

Globally, one in ten children is engaged in economic activity, and 17% of them are engaged in the service industry. Other than economically activated children, it is estimated that more children are engaged in tourism by begging for money and engaging in voluntourism or slum tourism. While children formally and informally engaged in tourism (so-called host children) have benefited from tourism, they are also exposed to physical, psychological and moral dangers. Hence, research was conducted to explore how host children perceive tourism impacts on their quality of life (QOL) by adopting visual research methods to listen to 94 Cambodian host children's voices. The research discovered that while host children perceived both positive and negative tourism impacts across five life domains, all host children perceived that their QOL has improved and supported tourism development. The research explains the paradox of QOL with unhealthy host-guest relationships and Cambodian social norms about child labour. Recommendations are made to promote host children's rights for sustainable and just tourism.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



ESG Solutions: Collaborating for a Sustainable Future Sunway-MAPAN Sustainability Plenary

CAGR and SBRC launched their first outreach for 2023 on 14 March 2023 with the Malaysian Association on Public Advocacy for Nature (MAPAN), an NGO, providing an opportunity to showcase to the SME community the various sustainable business research projects and translational sustainable research in the university. This garnered sufficient interest and demonstrated the need for focused ESG (Environmental, Social, and Governance) matters which are essential in the context of sustainability. ESG refers to a set of criteria that investors, businesses, and stakeholders use to evaluate the environmental, social, and governance performance of an organization. The Centre recognises that ESG matters and has implications for sustainability.

17 PARTNERSHIPS FOR THE GOALS



"A Special Lecture on the 40th Anniversary of Malaysia's Look East Policy"

The year 2022 marked the 40th anniversary of the Look East Policy (LEP). The Look East Policy had been significant to Malaysia and the Japan-Malaysia relationship and to Tun Dr Mahathir's effort to carve a different path in foreign relations in the last decade of the Cold War. Although some claim that the policy is not relevant anymore, the significance of fundamental national concerns such as effective national human resource development will never be obsolete, which means that there is still a lot that Japan can contribute to dynamic and stable socio-economic development in Malaysia. In the present turbulent times of rising anti-globalization sentiments, accelerating climate change, and emerging big-power competition, Japanese-Malaysian cooperation will boost the common interests of Japan and Malaysia in enhancing future economic prosperity and strengthening continued regional harmony.

The seminar invited the Ambassador of Japan to Malaysia, HE Takahashi Katsuhiko to deliver a keynote speech, moderated by Prof Woo Wing Thy.

17 PARTNERSHIPS FOR THE GOALS



From figures and tables to actual policy implications, a case study of how to transform findings to functions

Amidst uncertainty caused by the global pandemic, climate change and geopolitics, policymakers are encountering the unprecedented challenge of optimizing their policy design. This study discusses the role of research findings from multidisciplinary in assisting tourism policymakers. During the SARS-CoV-2 Delta variant outbreak at the global level, Thailand introduced the program of reopening the border to international travelers without quarantine with the aim of reviving the tourism sector. Backstage, the intense dilemma between public health concerns and economic revival was sought out issue by issue through academic findings and research; for instance, how to control high-risk contacts, adjustments of physical evidence in the hospitality industry, and pandemic SERVQUAL. Besides the economic destruction caused by COVID-19, Thailand's tourism business and policymakers increasingly integrating academic findings into their policy development.

3 GOOD HEALTH AND WELL-BEING



Residents' risk perceptions: Willingness to accept international tourists and self-protective behaviour during destination re-opening amidst the Covid-19 pandemic

This study investigates factors influencing residents' risk perceptions of the COVID-19 pandemic, their willingness to accept international tourists, and self-protective behaviour during destination reopening during the pandemic. Drawing upon the concept of Protection Motivation Theory, the structural equation modelling results prove the PMT model is powerful enough to explain the risk perceptions of local residents in accepting international tourists when reopening a destination during the pandemic. The article concludes by presenting academic and practical discussion and implications based on the findings.

5 GENDER EQUALITY



Understanding diversity training – the double-edged sword for diversity management

Diversity is a critical component in the tourism and hospitality (T&H) industry as it influences our interaction and experience during our travels. From an insider perspective, employees in T&H are continually exposed to different people at tourism destinations, which allows them an enriching experience in their work with added enjoyment and fun. However, diversity also brings its fair share of challenges, including communication barriers and misunderstandings leading to poor customer and employee experience. Diversity training is a tool that can be used to equip individuals with skills to manage these workplace challenges.

4 QUALITY EDUCATION



Western blot: Theory, Technique and Troubleshooting

School of Medical and Life Sciences has conducted a western blot workshop to provide the students with a chance to learn some of the tips and techniques to solve problems and some eye-opening technology in the lab by doing several experiments.



14 LIFE BELOW WATER

Workshop on “Risks and Solutions: Marine Plastics in SEA-RaSP-SEA

Professor Agamutu conducted this workshop which aimed to bring up:

- The correlation of microplastic presence in water and sediments of Malaysian mangroves.
- Track the mobility of plastic waste in Malaysian marine environments using GPS and satellite technology.
- Abundance and distribution of microplastics in the Selangor River.
- Potential of place-based citizen science to understand marine plastic pollution in Malaysia.



3 GOOD HEALTH AND WELL-BEING

Planetary Health & Nursing Workshop (21 January 2023)

The role of education is central to this aim by developing not only the basic and contemporary understanding of planetary health related to nursing requirements but also by advancing self-reflection towards the wider society and a recognition of the instrumental contributions of others.



3 GOOD HEALTH AND WELL-BEING

International Conference on Student-led Research and Innovation in Arts, Humanities & Social Sciences (ICRI-HASS'22)

ICRI-HASS is an annual international conference led by forward-looking and ambitious postgraduate students and members of academic staff from three partner universities: Lancaster University (UK), Sunway University (Malaysia) and National University of Malaysia (Malaysia). It invites postgraduate students from all over the world to present and share their work with others. The conference aims to disseminate and promote student-led research and innovation in the fields of Arts, Humanities and Social Sciences.



11 SUSTAINABLE CITIES AND COMMUNITIES

Focus groups and interviews with disaster response service providers

Dr Catherine Lee Cheng Ean and Dr Goh Yi Sheng from the School of Arts have conducted focus groups and interviews with 10 disaster response service providers to discuss challenges faced by disaster response operators (NGO and government) in meeting senior citizens' needs in disaster response operations in order to enhance the disaster response operation to cater to the senior citizens' needs.

11 SUSTAINABLE CITIES AND COMMUNITIES **12 RESPONSIBLE CONSUMPTION AND PRODUCTION**

14 LIFE BELOW WATER **15 LIFE ON LAND**

Sustainable Waste Management in the Global South

SUMITOMO FOUNDATION JAPAN

In a world facing monumental sustainability challenges, the imperative to cultivate responsible practices and policies is paramount. This endeavour falls not only on governments but also on major corporations, often seen as key drivers of sustainable production through their economic influence, technological expertise, and institutional capabilities. Particularly, in the Global South, where emerging economies depend on external financial resources, ecological technologies, and industrial infrastructure from multinational corporations (MNCs), the need for urgent research in the realm of corporate social responsibility (CSR) and extended producer responsibility (EPR) is glaring. This research seeks to foster environmental, social, and governance (ESG) responsibility among MNCs in emerging economies, focusing on waste management. It aims to develop a collaborative waste management framework in the Global South, specifically in Malaysia, to reduce waste and promote the circular economy.

The Significance of the Research Project

Malaysia's position as the world's largest plastic waste importer since 2017 makes it a critical location for this study. This status is particularly significant as Malaysia has become the primary destination for plastic waste exports from Japan. Unlike developed nations with well-established recycling infrastructure, Malaysia grapples with a low recycling rate and the disposal of waste primarily in landfills. The project holds particular relevance as Malaysia is surrounded by some of the world's top contributors to water pollution, including China, Indonesia, the Philippines, Thailand, and Vietnam. This collective challenge has vast implications for the state of the environment and water quality in Malaysia.

Given that Malaysia is a key destination for MNCs, the research carries implications for both these corporations and policymakers worldwide. Its global significance extends to offering valuable insights into waste recycling management in the Global South. The research project seeks to address multiple SDGs. It aligns with SDG 11 (Sustainable Cities and Communities) by promoting sustainable waste management practices in urban areas. By fostering responsible consumption and production, it contributes to SDG 12. Moreover, the project aims to have a positive impact on life below water and on land (SDGs 14 and 15) by reducing pollution in marine and terrestrial ecosystems.





EDUCATION

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

ESG Classification With Integrated AI For Integrated Report

This research proposal explores the integration of Generative AI to classify Environmental, Social, and Governance (ESG) components within Malaysian corporations and organizations integrated reports. In view of Malaysia's upcoming ESG standards framework, the emphasis is on tackling the problems connected with ESG classification. The project seeks to assess how well Generative AI can automate ESG content classification, hence increasing the efficiency and quality of ESG reporting in Malaysia. By conducting a comparative analysis between Human evaluation and the proposed Generative AI-based method, the study seeks to measure their performance using accuracy and F-score metrics. This comparison aims to quantitatively assess the benefits of each approach. The project has the potential to reshape ESG reporting practices, enhancing accuracy, efficiency, and transparency. Ultimately, this research aims to contribute to the progression of responsible and sustainable business practices in Malaysia, envisioning a future where innovative technology aids in promoting conscientious decision-making that aligns with global ESG standards.

8 DECENT WORK AND ECONOMIC GROWTH

Plights of Workers in Sweatshop Working Conditions

Guided tutorial sessions (1 hour x 2). Workshop sessions (1hr x 2). To teach the arguments for and against sweatshop working conditions in the modern era comparing and contrasting the approaches by Ian Maitland (applying the classical liberal approach) and Denis G. Arnold and Norman E. Bowie (applying Kantian ethics).

4 QUALITY EDUCATION

Creation of SDG e-learning module


The SDG Academy assisted Sunway University HR in the creation of a mandatory SDG e-learning module for all faculty and staff. The module is currently in its second iteration, having been updated for 2023.



7 AFFORDABLE AND CLEAN ENERGY

Electives at Bachelor of Chemical Engineering

The School of Engineering at Sunway University started the undergraduate Bachelor of Chemical Engineering with elective programs focuses on Environment and Climate Change. The demand for chemical engineers is increasing as sustainability continues taking its rightful spot at the forefront. Meeting the demand for sustainable practices in construction such as responsibly sourcing construction material through natural or renewable resources becomes crucial. This program prepares students to tackle issues from an important environmental perspective.

4 QUALITY EDUCATION

Development of SDG e-learning module for Pre-U

The SDG Academy provided guidance to the Sunway College Pre-U program for the creation of a mandatory SDG learning module for all Pre-U students.

2 ZERO HUNGER


Community service at Assembly Soup Kitchen

The goal of this project is to serve the underprivileged community aligned with SDG 2 - Zero Hunger. Students volunteering to assist in food preparation at Assembly Soup Kitchen. The objectives are tackling and addressing food insecurity in less fortunate communities.

15 LIFE ON LAND

Development of "One Health" MOOC

The SDG Academy launched this MOOC on the UNESCO "One Health" framework in collaboration with the UNESCO Man and the Biosphere program.

10 REDUCED INEQUALITIES

Community Service Medical Check Up for Refugees

The School of Hospitality and Service Management has offered a service of medical check-ups for refugees by the Red Cross.

4 QUALITY EDUCATION


Creation of "Using the SDGs for Government Action" mini-MOOC

The SDG Academy developed a short course in partnership with Apolitical, a global community of public servants and policymakers.

8 DECENT WORK AND ECONOMIC GROWTH

Promotional partnership for "Islamic Finance for the SDGs" MOOC

The SDG Academy partnered with the Islamic Development Bank to promote their course on Islamic finance for the SDGs and also included videos from the course in the SDG Academy Library.

1 NO POVERTY

Development of "Making University Social Protection a Reality" MOOC

The SDG Academy launched this MOOC on social protection in collaboration with the ILO.

11 SUSTAINABLE CITIES AND COMMUNITIES


Curation of "Shaping Urban Futures" MOOC

The SDG Academy curated the MOOC "Shaping Urban Futures" by the Indian Institute for Human Settlements onto its platform.


16 PEACE, JUSTICE AND STRONG INSTITUTIONS

SSM5183 Governance in Sustainable Development

This was a course as part of the Masters in Sustainable Development Management (MSDM) offered by Jeffrey Sachs Center on Sustainable Development. It provided an introduction to political science and public administration for students in sustainability so that they understand how the system works to help in their work or advocacy.


3 GOOD HEALTH AND WELL-BEING

Community service at Golden Years Senior Residence Nursing Home

Students offered their services at Golden Years Senior Residence Nursing Home to promote Good Health and Well-Being Sustainable Development Goals (SDG 3). The current nursing home elderly often face challenges in physical movements, social isolation, and high medical attention requirements. This group of students aims to improve the elderly quality of life by carrying out activities such as companionship, personal care, mental stimulation, cleaning, and many more every Sunday of June 2023. Throughout the services, they inspire thinking and awareness about the importance of good health and well-being and knowledge of elderly care.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Community service at Sunway XFarms

Students volunteering to offer their service at Sunway XFarms. The project aims to provide assistance in daily activities such as plant transplant, seed germination, cleaning net pots, harvesting the plants, and maintenance operations of Sunway XFarms to align with Responsible Consumption and Production Sustainable Development Goals (SDG 12).



12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Optimal Control in Real-world Applications


Associate Dean (Research) for the School of Mathematical Sciences, Sunway University, Prof. Teo Kok Lay, gave the School's first Sustainable Development Goal Talk Series on "Optimal Control in Real World Applications".

10 REDUCED INEQUALITIES


Community service at Malaysian Association for the Blind (MAB)

This group of students assisted with asset tagging in MAB, as the association needs an updated list of all their ICT assets for resource management. A new website of MAB has been developed and deployed upon re-evaluating the existing website. In addition, they have a dedicated separate page for promoting digital accessibility among the visually impaired community to reduce inequalities (SDG 10).




2 ZERO HUNGER

Community service at My Pets Haven

Students went to My Pets Haven at Setia Alam and attended two volunteering sessions to carry out a wide variety of tasks at the shelter. The activities include dog walking, cleaning the shelter, preparing meals for the dogs, and arranging the food products at the shelter mart. Throughout this event, students learned about the importance of animal shelters, especially for animal care and the welfare of abandoned and/or abused stray animals to achieve zero hunger (SDG 2).

4 QUALITY EDUCATION

Development of "Changing Behaviour for Sustainable Development" MOOC

The SDG Academy launched this MOOC on behaviour change science in collaboration with BehaviourWorks Australia and the Monash Sustainable Development Institute.

4 QUALITY EDUCATION



Best Practices Sharing Event

This is a school-level initiative for academics to share best practices in teaching and learning. In the first session in 2023, two selected academics shared about facilitating student engagement in online classes and creating communication opportunities with students. These are important aspects in teaching and learning strategy with the increase in online-based classes and learning activities post-pandemic.



SET BEST PRACTICES SHARING SEMINAR #1 2023

DATE: 27 MARCH 2023 (MONDAY)
 Time: 2.00 pm - 4.00 pm
 Venue: Lecture Theatre 1

SPEAKERS





Mrs LIM WAN MING
Department of Computing and Information Systems

Dr CHIA WAI CHONG
Department of Engineering

What are the strategies to keep our students engaged in online classes? How can we build rapport with our students?
 If you have asked these questions before, or you have some answers to them, join us for an afternoon of sharing and exchange of ideas about our teaching practices.

To register, click [here](#)


12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Capstone Project

This capstone project presents a comprehensive social media Text Analytics study done on Twitter data with the aim to explore the potential of the Buy Nothing Project (BNP) and its mobile application, BuyNothing app (BNA) in driving the success of the United Nation's Sustainable Development Goal 12 (SDG12). This study applies three analytics approaches to gain insights into the public's perception towards SDG12 and the Buy Nothing movement.

1 NO POVERTY



Workers in Modern Slums (Brazil's Valley of Death) - Case Study

Multiple critical analyses on conditions of workers in modern slums (including a libertarian approach, tragedy of commons, pollution and CSR, roles of firms and government, etc).

13 CLIMATE ACTION




World Earth Week: DIY Vermicomposting Workshop

Dr Grace Yap conducted the workshop at Sunway University for public participants. The workshop is sponsored by the American Chemist Society-Malaysian Chapter to observe World Earth Week.



10 REDUCED INEQUALITIES




SunHaven Charity Bazaar

The School of Hospitality and Service Management has organized the SunHaven Charity bazaar to raise awareness and empathy for the deaf society.




12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Micro-credential in Sustainable Management and Operations

Sunway Business School offers this micro-credential to integrate sustainability from a business operations perspective. Also, theBSc (Hons) Global Supply Chain Management offers an elective Green Supply Chain Management which discusses distribution practices and sustainability.

4 QUALITY EDUCATION




PSY3034 Learning Disabilities Coursework: Learning Disabilities Experience Exhibition

The aim of this LD experience exhibition is to engage people in gaining a greater insight into what it is like to live with learning disabilities and other related disabilities. While many people have heard about terms like Dyslexia, Autism, ADHD, mental retardation, and special needs etc, there is very few truly understand what learning disabilities and related disabilities are. Moreover, fewer still have a sense of what it is actually like to face the challenges experienced by learning disabilities and other related disabilities individuals and their families.




4 QUALITY EDUCATION



SMS Academic Excursion

School of Mathematical Sciences (SMS) conducts an Academic Excursion annually, at the beginning of the year. This is an initiative by the School to continually improve the delivery of teaching and learning, through training and sharing sessions among academics. Representatives from ASQ and AED are always invited to the event to provide advice on curriculum-related matters and blended learning approaches and delivery.


11 SUSTAINABLE CITIES AND COMMUNITIES



PSY3024 Behaviour Modification - Assignment 2: Sustainable Change Project

This assignment required students to develop a behavioural modification programme with the aim of applying behavioural psychology principles in fostering sustainable behaviours. This assignment also aimed to understand how it is important to make observations based on data rather than rely on intuition to understand behaviours surrounding sustainability issues.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



PSY2154 Motivation and Emotion - Coursework assessment: Using rational and emotional posters to motivate people to practise environmentally responsible behaviour

The task was to implement a project based on motivational themes to adopt healthy behaviour. Students were required to design two posters on one of these topics:

- Healthy eating for eat-out individuals
- Exercise for health
- Drinking alcohol responsibly.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION
PSY2124 Cognitive Psychology – Coursework assessment: Thinking fast, slow about environmental behaviour

A project that addresses cognitive aspects related to the perception of environmental behaviour using the two systems for decision-making (Kahneman, 2011):

System 1, is permanently connected to our senses and operates automatically, intuitively evaluating the environment;

System 2, which comes into play for more complex decision-making, is more orderly and requires effort to calculate and formalize judgments.

Students were required to design two posters to explain the importance of environmentally responsible behaviour.

One poster should present an emotional appeal in support of your chosen topic (system 1), the other poster should present rational arguments to support your chosen topic (system 2). The attitudes towards environmental behaviour were measured using the Green Scale before and after watching the posters.

3 GOOD HEALTH AND WELL-BEING
PSY3094 Community Mental Health – Coursework assessment: Promotion of Mental Health using Social Media

The task is to design and implement a project on a selected topic to raise awareness among the public and promote mental health in Malaysia. Students should design a proposal on what and how they are going to promote mental health in Malaysia via social networks (e.g. Instagram/ Facebook/ Twitter/ TikTok account(s)). The project is ongoing for at least five (5) weeks and the main activities include posting messages on the CW media account at least twice a week and monitoring how many people are reached by messages and what are their responses.

11 SUSTAINABLE CITIES AND COMMUNITIES
Design for Society (BIA)

This subject studies green building concepts, including sustainable site selection, water efficiency, energy efficiency, sustainable materials and resources, and indoor environmental quality. It will provide the opportunity for students to develop their designing skills with respect to people, environment, materials and context, and foster student’s creativity through the development of their practical and intellectual skills.

4 QUALITY EDUCATION
CWAC: Cultivating A Giving Generation: (7 & 8 June 2023)

The most significant event of the year is undoubtedly our #CampusWithAConscience Local Action for Global Goals 2023 at Sunway University. It’s a week-long festival of events in conjunction with the global 8th Anniversary of the Sustainable Development Goals (SDGs), which was initiated in New York on 25 September.



11 SUSTAINABLE CITIES AND COMMUNITIES
South East Asia Housing Symposium 2022

The South East Asia Housing Symposium 2022, organized by the Sunway Institute of Global Strategy and Competitiveness (IGSC) and the School of Mathematical Sciences (SMS), aimed to address the pressing issue of housing affordability in the region. It served as a collaborative platform for diverse stakeholders, including industry experts, academics, policymakers, and the public, to explore the concept of housing affordability in Malaysia and South East Asia from various perspectives.



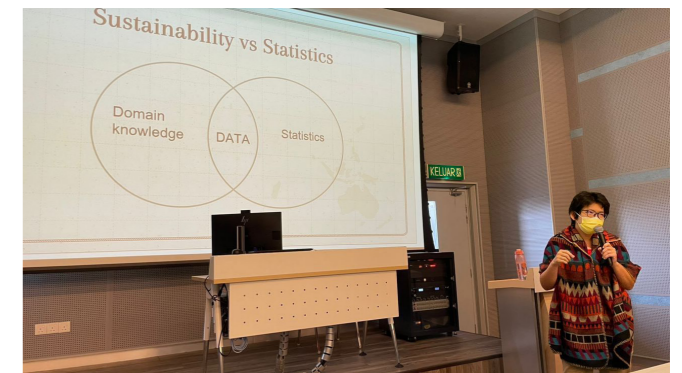
6 CLEAN WATER AND SANITATION
World Water Day on Campus

Sunway University celebrates World Water Day by educating students on ways to save water on campus and at home through videos and campaign activities. However, reminders to adhere to water-conserving practices are on campus all throughout the year, through posters in the lavatory and above sinks in eating areas.



4 QUALITY EDUCATION
From Data to Decision-making: Empowering Sustainability Development Through Statistical Inferences

The School of Mathematical Sciences, Sunway University hosted its 2nd SDG Talk presented by Dr Wooi Chen Khoo, Head of the Department of Applied Statistics. Titled “From Data to Decision-Making: Empowering Sustainability Development through Statistical Inferences”, Dr Khoo shared how her research work addresses SDG 3 (Good Health and Wellbeing), SDG 8 (Decent Work and Economic Growth), SDG 9 (Industry, Innovation and Infrastructure), and SDG 10 (Reduced Inequalities).



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
Run Sum Charts with Variable Charting Parameters Monitoring the Coefficient of Variation

Control charts are useful tools to monitor the stability of a process. By convention, control charts are designed to monitor changes in the mean and/or standard deviation. However, in some real-life applications, for example for some properties related to alloy materials, the mean is not stable and the standard deviation changes proportionally according to the mean. Besides that, in certain scenarios, it is more useful to monitor a parameter that links the standard deviation with its mean, for example in evaluating investment risks. In these scenarios, it is more useful to monitor the coefficient of variation, which is the ratio of the standard deviation over the mean. In this talk, we will talk about a run sum chart with variable charting parameters that aims to improve the performance in detecting changes in the coefficient of variation.

11 SUSTAINABLE CITIES AND COMMUNITIES

Spiritual Tourism & Pilgrimage in the COVID-19 Context

Despite the devastating impacts on the tourism industry during the COVID-19 pandemic, spiritual tourism and pilgrimage have risen in popularity around the globe, as individuals seek a means to cope with the pandemic stress, anxiety, isolation and even COVID-19 recovery. The presentation will focus on how spiritual tourism and pilgrimage can be utilised for individuals' well-being enhancement as well as community well-being and destination revitalization. The presentation will explore how these forms of tourism can be developed in a sustainable and inclusive way in the post-pandemic context.



7 AFFORDABLE AND CLEAN ENERGY

13 CLIMATE ACTION

Renewable energy research: Research that can pave and shape the landscape

The seminar aims to shed light on how ongoing research endeavours can pave the way for significant changes in the renewable energy sector. Topics will include breakthrough technologies, policy implications, and the potential for renewable energy to meet the world's growing energy demands while mitigating environmental impacts. This seminar serves as a valuable resource for anyone interested in the vital role of research in advancing renewable energy technologies and practices.

7 AFFORDABLE AND CLEAN ENERGY

13 CLIMATE ACTION

2nd Seminar on Nanomaterials and Energy Storage (NanoES2022)

The nanomaterials and energy storage seminar is the second in a series of two days programs to discuss research progress on nanomaterial synthesis, performance and technological application in energy storage materials and devices for sustainable energy and development. Speakers involved are leading experts in the field of nanomaterials and energy storage from the United Kingdom, South Korea, Thailand, Sweden, India, Philippines and Malaysia. This seminar demonstrates the commitment to support the United Nations Sustainable Development Goals, particularly SDG7 on ensuring access to affordable and clean energy and SDG13 on climate action.



12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Pollution and the Exportation of Plastic Waste to Malaysia by Developed Countries

Analysis of arguments for and against the exportation of Pollution and Plastic Waste to Malaysia in a case study of recent events in the local context analysing the arguments by Lawrence Summers (applying utilitarianism) and its critiques.



4 QUALITY EDUCATION

Development of "Equitable Education" MOOC

The SDG Academy launched this MOOC on equitable education in collaboration with UNESCO Bangkok.

Make It Challenge Hackathon

Make-It-Challenge is a collaborative hackathon challenge for Sunway University students and staff to address issues revolving around the 17 United Nations Sustainable Development Goals (UN-SDGs). This year, 101 students and staff participated in the Make It Challenge, forming teams to solve challenges around these three (3) Challenge Themes, as inspired by Sunway's 50th Anniversary – Transforming Tomorrow theme:

- Resilient Cities
- Workplace Innovation
- CX Innovation

The Make It Challenge was first initiated in 2017, and has impacted more than 1000 students, generated more than 80 solutions aligned to the SDGs and developed more than 30 community partners, in the past 7 years.



7 AFFORDABLE AND CLEAN ENERGY

Organizing a field trip for our Master in Sustainable Development Management students

On the 27th of August 2023, students from the Master in Sustainable Development Management program who were enrolled in the Biodiversity Course, embarked on a field trip that blended education with hands-on exploration. The expedition kicked off with a 3-hour visit to the Sunway Wildlife Park, where park rangers guided the students through the animal behaviors and origins. Drawing from lectures by Prof Vellayan Subramanian, an esteemed expert in zoo management and veterinary care, students evaluated enclosures and animal well-being, recording their observations as part of their learning experience.



EXTERNAL ENGAGEMENT



Worked with Sunway International Business Society (SIBS) as a Teacher Advisor to organize a series of events to promote sustainable fashion practices under the Sustainable Stylecon event

By combining the words “sustainable” and “style,” the name communicates the idea that fashion and sustainability can coexist and that there are ways to enjoy fashion while minimising its negative impact on the environment. The addition of “con” in the name suggests that this is a gathering of people who share a passion for sustainable fashion and are coming together to learn, share ideas, and connect with like-minded individuals. The event aimed to raise awareness about the harmful impact of the fashion industry on the environment and promote sustainable practices. A variety of workshops were conducted to educate students about the fashion industry.



WTTC Global Summit 2022 Youth Programme

SDSN was responsible for convening a global delegation of youth to participate in the World Travel & Tourism Council Global Summit in Riyadh, Saudi Arabia, in Nov. 2022. The delegation included four Sunway students and three staff. One of the goals of the WTTC Global Summit was to shape the future of travel and tourism, with a focus on resilience and sustainability, with the aim of allowing individuals to work together in order to build a better future for all.



International Women’s Day Celebration

Prominent women and gender equality experts can have meaningful discussions on important topics, while panel talks offer a platform to share insights, stories, and strategies for progress.



AKPK Club to promote financial literacy and community service among youth

The partnership with AKPK Club to promote financial literacy among youth directly supports Sustainable Development Goal 4 (SDG 4), which emphasizes inclusive and equitable quality education and lifelong learning. By providing talks on effective debt and credit management, the initiative equips young people with crucial financial skills, fostering informed decision-making and financial autonomy. This educational enhancement extends beyond traditional academic subjects, filling a vital gap in preparing youth for real-world financial challenges.

Targeting B40 students with gamified workshops and sessions on psychological aspects of career planning further aligns with the equity aim of SDG 4, ensuring that disadvantaged groups are not left behind in acquiring essential knowledge and skills. These efforts contribute to leveling the educational playing field and promoting a culture of lifelong learning, which are key objectives of SDG 4. Through these activities, the partnership not only advances financial literacy but also supports the broader goals of ensuring equitable quality education and fostering opportunities for personal and professional growth among all youth.

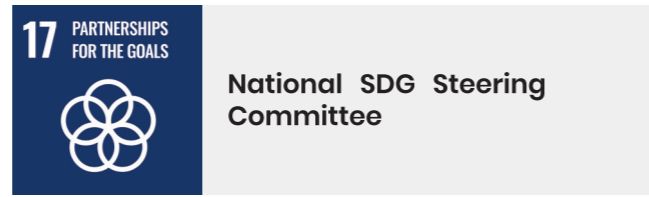


“ASEAN Green Future: Accelerating Decarbonization in ASEAN” at “Youth Innovation Forum” Batch 2

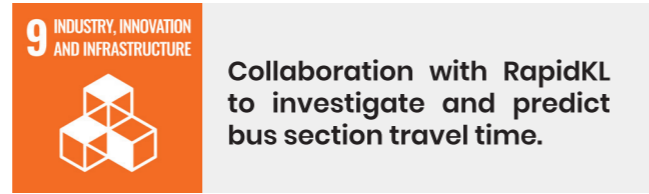
The Youth Innovation Forum is a program for young leaders to share and learn about implementing innovative ideas and activities to realize the Sustainable Development Goals, as well as encouraging youth to have a positive impact on the surrounding environment. The Youth Innovation Forum was held in Singapore, Malaysia, and Thailand. This program hopes to make young people into leaders in the future. Increasing the contribution of youth to society has added value to the ability of creative ideas. In supporting the program, therefore we carry the theme “Youth For The Future”.



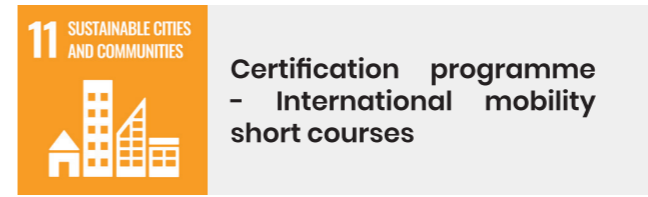
SDSNA’s Karen Chand and Shannon Kobran spoke on panels about Mission 4.7 Malaysia’s pilot study and professional upskilling for a just transition.



SDSN Malaysia was appointed to membership of the National SDG Steering Committee and to lead the Technical Committee on the Private Sector.



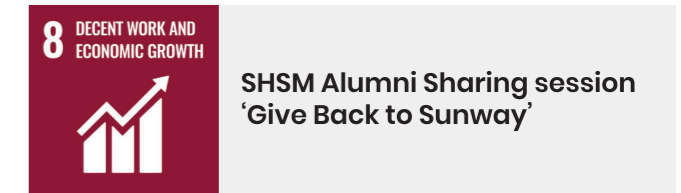
The School of Mathematical Science in collaboration with RapidKL investigates bus section travel time and develops models that can predict bus section travel time with point and interval estimations. They were also able to identify sections along a bus route that suffer from timeliness issues. Project was funded by FRGS and their first conference paper investigating bus section travel time using the Burr distribution won the Best Paper Award at the 16th IMT-GT International Conference on Mathematics, Statistics and their Applications (ICMSA 2020). Additionally, they won the Second Runner-Up Award for Best Technical Paper at the 11th Malaysian Road Conference & Exhibition 2022 and the 4th International Road Federation Asia-Pacific Regional Congress.A



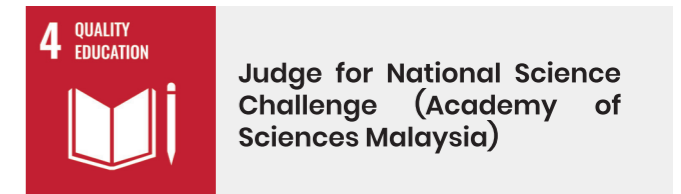
The Certification Program in Sustainable Destination Development Management offers a comprehensive curriculum designed to educate and certify students from partner universities in the field of sustainable city development. The program will cover key topics such as urban planning, environmental conservation, community engagement, sustainable tourism, and more.



This workshop is to raise awareness and educate participants about the environmental, social, and economic challenges associated with coffee production and consumption. Besides, it could share best practices and provide participants with insights into sustainable practices in coffee sourcing, roasting, and consumption. Moreover, it can motivate participants to make conscious choices that support a more sustainable coffee industry.



It is a sharing session to generate and educate entrepreneur mindset for food service business sustainability.



The Academy of Sciences Malaysia (ASM) has been organizing the NSC, one of the nation’s premier science competitions since 1999. To date, 9888 teams have participated in NSC2023, where students are required to submit a video based on the theme of Ensuring the Nation’s Food Security through Science, Technology, and Innovation. Appointed judges were involved in the evaluation of the videos submitted and acted as members of the panel during the interview sessions. The state-level competition was held from the 3 to 27 of July 2023.



Co-organised a one-day virtual South-East Asia Housing Affordability Symposium

The School of Mathematical Sciences (SMS) co-organised the housing symposium with the Sunway IGSC, together with Associate Professor Tu Yong from the National University of Singapore. The symposium was organised to look into the issues of housing affordability, especially in the SEA region. It aimed to look at what housing affordability is, how it should be defined, and how the housing crisis may be mitigated. It brought together SEA stakeholders from the industry, academia, policymakers, and the general public to see the matter from different vantage points. Keynote speakers were invited from the Asian Development Bank and Habitat for Humanity Philippines, in addition to 6 invited speakers from REHDA Selangor, RMIT Vietnam, NUS, UTP, UUM and Sunway University. The highlight of the symposium was a panel discussion comprising experts from REHDA Institute, IDEAS, Centre for Market of Education and a YouTuber Property Reviewer and influencer.



MOU with Ipsos Malaysia, a leading global market research and consulting firm.

The MOU outlines several areas of collaboration that will benefit both Sunway University and Ipsos Malaysia. One of the key areas is access to Malaysian data available from the Ipsos Global Advisor, a database that regularly collects people's opinions across a broad range of topics and current issues. In addition to potential research opportunities arising from the Global Advisor data, it also helps the staff design authentic assessments and learning materials that reflect real-world practices. There are abundant opportunities for staff and students to uncover invaluable insights into consumer behavior, market trends, and other important topics embedded in the dataset through a rigorous data exploration and modelling workflow.

In addition, the MOU includes internship and graduate opportunities for Sunway University graduates at Ipsos. This will provide students with a unique opportunity to gain hands-on experience in the industry and learn from experts in their respective fields. Sunway University will also offer Ipsos opportunities for statistical consulting, enabling faculty members to closely collaborate with Ipsos researchers in data analysis, developing statistical models, and utilising the results to inform policymaking.



Seminar: Prioritising Higher Education

The talk session at MAHSA University was held with differing views posited by the audience during the Q&A session. I began my talk by assessing the various concepts and understanding of the Needs-Based Approach (NBA) in Higher Education.

Going through the 5 principles, namely, personalisation, customisation, collaboration, continuous assessment, holistic development and supportive environment, there must be a cohesive effort amongst stakeholders to achieve the goals. We want students to be passionate about lifelong learning, to love the diversity of culture, volunteerism and involvement in programs with other society members. It is crucial that not only the mindsets of students should be realigned towards these strategies, but our policymakers too must be engaged with the positive aspects, ensuring commitment to higher education.



Water Sector Transformation Agenda 2040 (WST2040)

The nation aims to achieve a secure, sustainable, and vibrant water industry in Malaysia to forge it into a dynamic, efficient, sustainable, and revenue-generating industry. The five focused areas of WST2040 are empowering people as the drivers of the transformation, strengthening governance, enhancing data-driven decision-making, ensuring sustainable financing, and developing sustainable and cost-effective infrastructure. This study, led by researchers at the Institute for Global Strategy and Competitiveness at Sunway University and in collaboration with the Academy of Sciences Malaysia, introduced an ecosystem approach to transforming the water sector into a dynamic economic sector while ensuring water security and sustainability.



Volunteering with Batu Kapal Conservation in Sumatra Indonesia

A member of the Jeffrey Sachs Center staff had the valuable opportunity to volunteer with the Batu Kapal Conservation NGO in Sumatra, Indonesia, for a week. During this period, she engaged in hands-on learning and active participation in specific conservation activities. These activities included identifying, GPS recording, and monitoring the daily activity patterns of Orangutans and other primates. She also gained proficiency in basic mapping using the QGIS software, contributed to maintaining species monitoring databases at the project site, and played a significant role in tree-planting initiatives aimed at creating essential wildlife corridors. This experience not only broadened her understanding of conservation efforts but also aligned with the Jeffrey Sachs Center's commitment to practical engagement in preserving biodiversity and protecting endangered species.



4

QUALITY
EDUCATION

SustHack @ Sunway Bootcamp

SustHack@Sunway Bootcamp hosted 33 students from Singapore Polytechnic and Sunway University to embark on a 5-day programme to tackle problems related to sustainability. They go through the ideation, development and validation process before they present the outcome of their work. Guest lectures related to Sustainability and Planetary Health were also given to the participants to bring awareness and inspiration.



13

CLIMATE
ACTION

Road to Glasgow Kunming: Combating Climate Change and Biodiversity Loss in Malaysia

In response to the two largest environmental negotiation forums, the UN Climate Change Conference (COP26) and the UN Biodiversity Conference (COP15), the European Union Delegation to Malaysia and WWF Malaysia hosted this virtual conference to inform the public about the preparations for these events. One of the presentations, ASEAN Green Future-Low Carbon Economy was delivered by Professor Woo Wing Thy, Director of Jeffrey Sachs Center on Sustainable Development. Actions to Combat Climate Biodiversity Conservation Change and Several engagement sessions, webinars, workshops, and lectures are conducted to improve education, awareness-raising and human and institutional capacity on climate change mitigation.

7

AFFORDABLE AND
CLEAN ENERGY

Research Conference - 1st International Conference on Advanced Materials & Sustainable Energy Technologies 2023

The Centre aims to enhance the knowledge of professionals, researchers, and scholars in basic and applied energy materials research by integrating emerging scientific concepts in energy storage and sustainable energy technologies. In particular, it is focused on providing reliable global solutions for ensuring access to affordable and clean energy.

8

DECENT WORK AND
ECONOMIC GROWTH

The 2nd International Conference on Emerging Technologies and Intelligent Systems (ICETIS 2022)

Dr Tang Tiong Yew has shared insights about Robotic Process Automation (RPA) in this conference which aims to convene academics, researchers and developers from both academia and industry to share and exchange their latest research contributions and identify practical implications of emerging technologies to advance the wheel of these solutions for global impact while also in line with the fourth industrial revolution goals and its respective impact on environmental sustainability.

METHODOLOGY

This SDG Report highlights Sunway University's actions in addressing the United Nations Sustainable Development Goals (SDGs). We continue to map our actions in addressing the SDGs through 4 main areas: leadership, education, research and engagement. The overall data inevitably derives from multiple sources and at different timelines between 2022–2023.

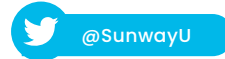
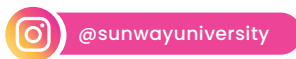
Data, Metrics and Source of Information

Data has been extracted from Scopus to exhibit Sunway University's total research publications against each SDG from 2022 to 2023. Such data is retrieved on the 30 September 2023. With such data, we have been able to summarise:

- The number of Sunway University publications for each SDG for the period 2022 – 2023.
- The level of citation impact of Sunway University's publications against each SDG for the period 2022 – 2023.
- The level of lead author impact of Sunway University's publications against each SDG for the period of 2022 – 2023.

Case studies and action initiatives were selected for inclusion to illustrate the contributions to the SDGs. The actionable SDG initiatives and information were collected through a campus-wide self-reporting initiative which was reviewed and re-written for the purpose of the publication. Many other actionable highlights will be provided in our sustainability microsite for a fuller picture of our impact.

THE SUSTAINABLE DEVELOPMENT GOALS



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