



# SUSTAINABILITY REPORT

Editors  
MIMI HARYANI HASSIM  
SHAMSUL SARIP  
MOHD FADHIL MD DIN  
SHAZWIN MAT TAIB  
KIFLEE JIMPI

20  
22

**SUSTAINABILITY  
REPORT**

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**UTM**  
UNIVERSITI TEKNOLOGI MALAYSIA

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The background of the page is a watercolor-style illustration. It features soft, blended washes of light blue and pale orange against a white background. The orange washes are primarily located in the top-left and bottom-right corners, while the blue washes are more prominent in the bottom-left and top-right areas. The overall effect is a gentle, artistic backdrop.

This sustainability report is dedicated to all UTM campus residents who worked hard to plan and develop university sustainability courses on and off campus, online, and wherever else they may be, as well as to all students, staffs, and collaborators across the nation and abroad.  
May all of our endeavours bring us blessings both now and in the hereafter.



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# Foreword

More than 1,400 years ago, our beloved Prophet Muhammad (pbuh) has reminded us to act sustainably, and to act in a way that will environmentally benefit us and those around us.

The Prophet (pbuh) also leads by example. He would perform ablution with one mudd (half a kilogram of water), and a ritual bath with one sa' (two kilograms of water), up to five mudd (two and a half kilograms of water). Instead of discarding worn-out clothing items, He would repair and reuse them. He encouraged His disciples to plant trees as a charitable gift not only to the community, but also to other living creatures. Cleanliness is a virtue highly regarded by the Prophet (pbuh); so as caring for animals and plants, as well as keeping each other safe from harm.

I am delighted that our students and staff are proactive in initiating and organising activities that relate to sustainability.

As reported throughout the course of this report, they embrace sustainability as a core value, and are keen to support and contribute to the well-being of local and global communities.

As such, I would like to express my deepest appreciation and gratitude to the UTM community for their commitment and dedication.

Thank you for making a difference!

Notwithstanding our achievements, we should never be complacent. There are many communities who have yet to embrace and adopt sustainability as a way of life.

As learned individuals, we must follow through the footsteps of our beloved Prophet (pbuh), and invite members of the community to work together with us.

There are many ways to inspire them through our core work in teaching, research, and community engagement. We had to show the way and earn their trust, so that the propensity for change is driven from by the community itself.

I trust that UTM Campus Sustainability is capable of accelerating the sustainability agenda not only within the campus community, but also across communities within and outside Malaysia.

Congratulations for publishing such a timely and important report, and all the best in the future!

**Professor Datuk Ir. Ts. Dr. Ahmad Fauzi Ismail**  
**UTM Vice Chancellor**





Anticipation in higher education in a new millennium will emphasize significant changes in sustainability elements and action-plan to ensure our transparency, integrity and synergy of the core business related to teaching and learning (T&L), research, innovation and community services. Indicator and achievement indicators of sustainability rely on the spiritual movement of sustainability culture with the emphasis on reflection, motivational enthusiasm, and obviously to support Five (5Ps), People-Prosperity-Peace-Partnership-Planet.

The realization for sustainability in University is to connect higher education institutions, strengthen networks, and stakeholder empowerment to create a community of shared learning in support of SDG integration into curricula, research, programmes and campus practices and facilitate the transfer of knowledge. Another fundamental principle of sustainability is to offer, regardless of stakeholder position to integrate the SDGs into their curricula, research, programmes or campus practices (especially services and facility enhancement). Therefore, implementing sustainability is beyond the short-term achievement (such as rating and index) as most universities' practices towards KPI (or KAI in certain universities).

UTM has been working closely since 2020 on the following sustainability agenda, including ESG (Environment, Social and Governance) and ESD (Education for Sustainable Development). ESD already integrates with the academic program, including the service learning program, community services and micro-credential modules. However, ESG is our new key point in higher education to represent a set of commitments by policymakers and stakeholders to fulfil internal and external quality assurance. The ESG is not standard for quality, nor do they prescribe how the quality assurance processes should be implemented at a specific target. Still, it can provide guidance, covering the vital areas for successful quality provision and learning environments in higher education. Thus, revolutionary items in targeted components of ESG in UTM would entrust our competencies and reliable training among stakeholders on campus. This report will co-support another perspective of ESG databases (or documentation), especially with an emphasis on other pillars of sustainability (economy and social) instead of only the environmental segment.

UTM is richest in its biodiversity (people and environment) and another perspective combining our commitment to nurture the sustainability added-value with the friendly use of hydrosphere, biosphere and atmosphere in the local agenda on empowering health and well-being of the stakeholders. The common works with new challenges of new academia will foster the transformation of well-being among students and staff on campus, which need a balance of life and academic reputation. It is a significant role of the University to lead the culture of well-being as the foundation for advancing the outcomes in the global targets.

# Preface

**Mimi Haryani Hassim  
Mohd Fadhil Md Din  
Shamsul Sarip  
Shazwin Mat Taib  
Kiflee Jimpi**

**Universiti Teknologi  
Malaysia 2023**



# List of Abbreviation

ATU-Net	Asia Technology University Network	SDSN	Sustainable Development Solutions Network
AUN/SEED	ASEAN University Network/Southeast Asia Engineering Education Development Network	SEATUC	South East Asian Technical University Consortium
CSR	Corporate Social Responsibilities	SO	Sustainability Office
DSKom	Denai Sungai Komuniti	SP	Strategic Priorities
ESG	Environmental, Social, and Governance	SPA	Strategic Priority Areas
ESM	Energy Saving Measures	ST	Strategic Trust
GCRF	Global Challenges Research Fund	STREM	Smart and Resilient Energy Manager Programme
GET	Green Electrical Tariff	UKRI	United Kingdom Research and Innovation
GOC	Green Office Committee	UTM iLeaGue	Institute for Life-Ready Graduate UTM
IPASA	Centre for Environmental Sustainability and Water Security	WBI	Well-Being Index
ISES	Integrity, Synergy, Excellence, Sustainability	WTUN	World Technology University Network
JPU	Jawatankuasa Pengurusan Universiti	YKS	Yayasan Kebajikan Siswa
JUC	Japanese University Consortium		
MAIWP	Majlis Agama Islam Wilayah Persekutuan		
MBIP	Majlis Bandaraya Iskandar Puteri		
MC	Micro Credential		
MREC	Malaysia Renewable Energy Certificate		
MySUN	Malaysia Sustainable University Campus Network		
NGO	Non-Governmental Organization		
NUMed	Newcastle University Medicine		
ODL	Open Distance Learning		
OSHMP	Occupational Safety and Health Management Plan		
PIUTM	Pusat Islam UTM		
RCCE	Regional Collaboration in Civil Engineering		
REEM	Registered Electrical Energy Management		
SATU	South Asia and Taiwan University		
SDGs	Sustainable Development Goals		



A photograph of a paved road lined with large, mature trees. The trees on the left have pink blossoms, while the trees on the right have white blossoms. The road curves into the distance under a clear blue sky. A red banner with white text is overlaid at the bottom of the image.

**What is the UTM story on sustainability?**



**1**

# Introduction



# A Total Commitment for Sustainability

## The Mission

Universiti Teknologi Malaysia (UTM) has set a mission to develop holistic talents and prosper lives through knowledge and innovative technologies. In this context, one of the keys to prosperity is facilitating sustainable living for everyone including on campus. UTM has always been committed to campus sustainability by integrating and balancing the economic, social and environmental spheres within the university's core business.

This sustainability commitment has reinforced university's mission of prospering lives by meeting the current needs and building the future without compromising the ability to exist and survive continuously. UTM is also aware that existing efforts to foster global sustainability have not been sufficient, and that education and research will be essential in bringing about the transformative change needed to overcome grand challenges on sustainability.



UTM is well-positioned to adopt and promote the sustainability goals continuously as sustainability is listed as one of the university's ISES core values. This value positioning catalyzes UTM's sustainability strategy in the long-term, stimulating the UTM community's paradigm shift on sustainability and transforming the university to drive the Sustainable Development Goals (SDG). The total commitment shown assures that UTM will be acknowledged as a major contributor to the quest for sustainability.

## UTM Three-Pronged Strategy

The UTM sustainability strategy is anchored by three sustainable goals:

01



To ensure the implementation of sustainability practices on campus to overcome the higher education challenges in the future.

To ensure the optimization of resources on campus (asset, utilities, talents and financial support) towards more resilient campus adaptations.



02

03



To ensure the commitment towards the outcomes of sustainability practices on campus shall be translated into national and global value-added.

*“ UTM is poised to set an example for other higher learning institutions which can be facilitated through good governance in sustainability”*

# Governing the University

At UTM, a sustainability steering committee was established under the highest authority of the UTM executive committee (JPU) with the UTM Vice Chancellor serving as its chairman and the JPU secretariat providing administrative duties. Overall, this steering committee has a defined mandate to drive systemic sustainability transformation across the university and oversee strategic and policy direction. The committee has a substantial membership from diverse university stakeholders to ensure that effective monitoring, evaluation, communication, and reporting processes are in place. The membership selection is equally important to acquire consensus and support in achieving a shared sustainability vision through an institutional platform, before embarking into the execution or enforcement phases.



## UTM Office of Campus Sustainability (SO)

The UTM SO is a co-secretariat of the Sustainability Steering Committee, which is responsible for coordinating and driving the execution of the planned programme among all university stakeholders. UTM SO also contributes to proposing and establishing impactful programmes that advance the overall sustainability goals of the university. It is also essential for UTM SO to work in synergy with each level of the university division and faculty.

## UTM Green Office Committee (GOC)

To ensure the successful implementation of the entire sustainability programme at the operational level, the UTM Green Office Committee (GOC) is established, which is led by the Registrar Department and consisted of Green Managers and Coordinators from each university level.

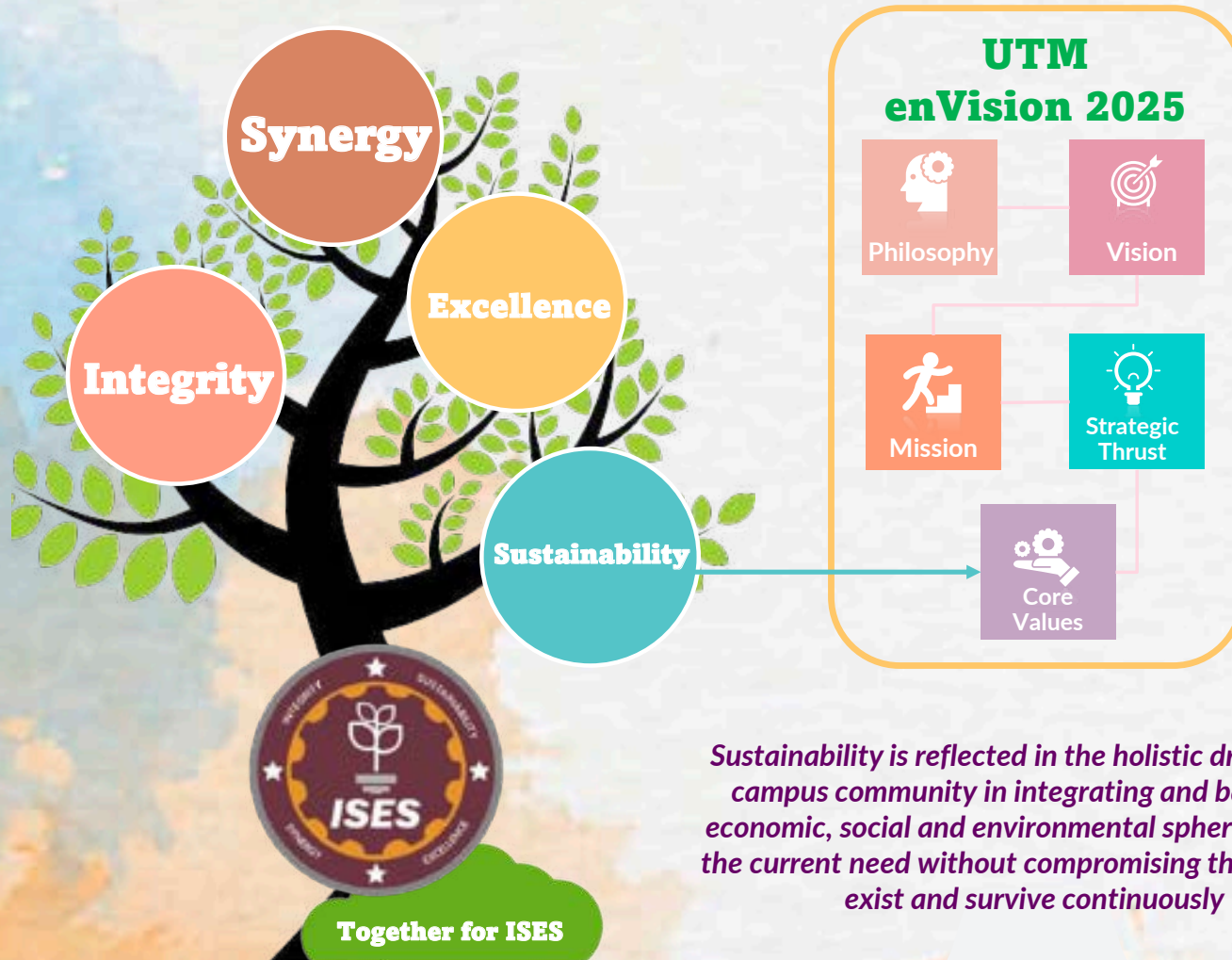


***“UTM places great emphasis on leadership commitments, collective responsibility and high-performance delivery to drive university sustainable transformation and building a culture that will lead to meeting our sustainability goals”***

By streamlining governance, UTM can prevent resource fragmentation and the redundancy of competencies, which helps the university make effective decisions. In this regard, the steering committee is responsible to prioritize the allocation of funds and resources by overseeing the entire sustainability ecosystem in UTM.



# ISES: Sustainability



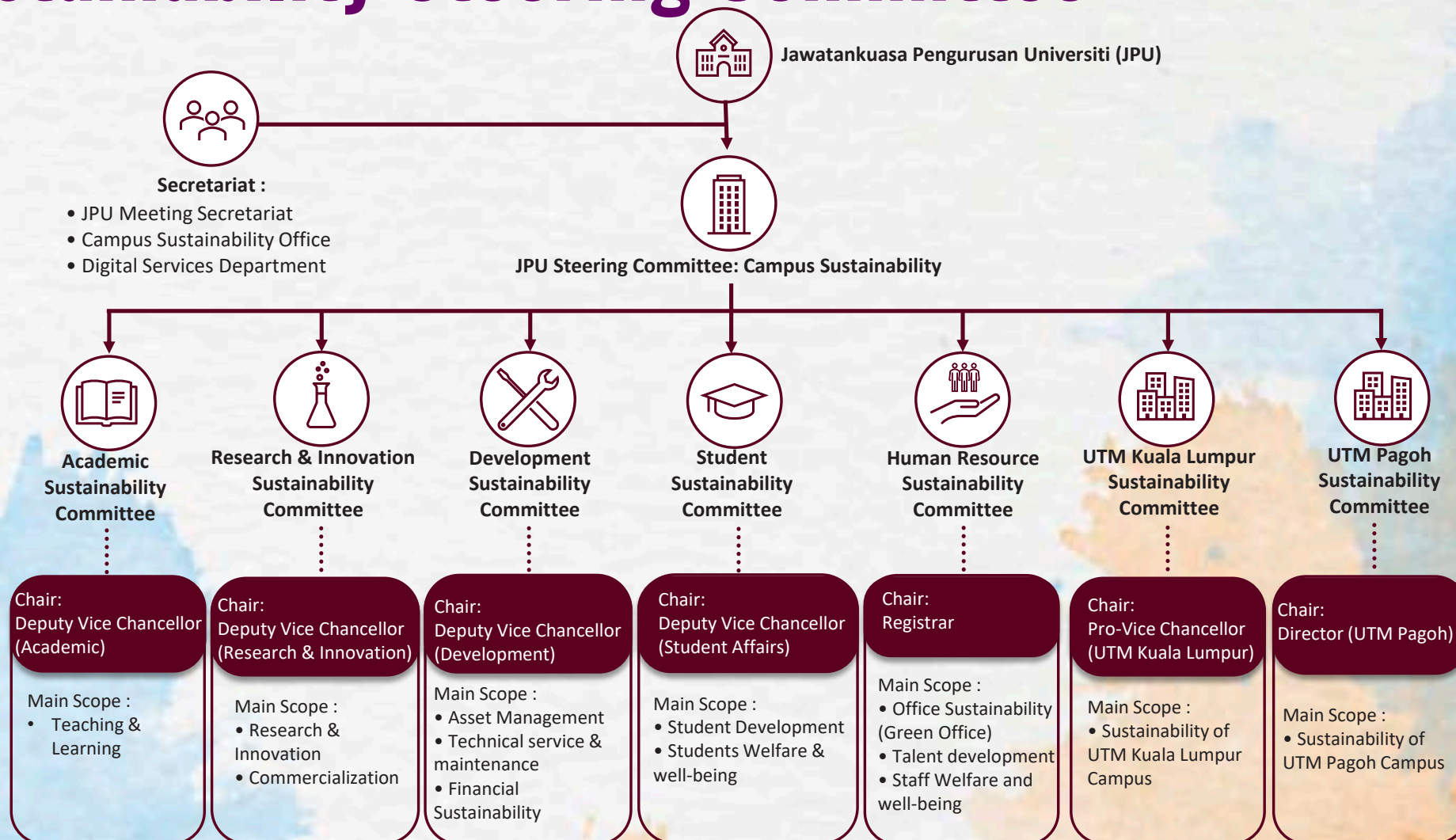
*Sustainability is reflected in the holistic drive by the campus community in integrating and balancing economic, social and environmental spheres to meet the current need without compromising the ability to exist and survive continuously*

## 2019 - 2022

- Institutional Sustainability
- #dnautm & Green Lifestyle
- Empowerment of Taskforce Steering Committee of Sustainability
- Kick Off UTM Sustainability Masterplan 2025 (envision balance scorecard)
- Governance Framework 2030
- Appointment Chair for UTM Sustainability
- Chancellery Office



# Sustainability Steering Committee



# Green Office

## What is Green Office?

A term used to describe a condition or system that is environmentally responsible and aimed at reducing the impact of office activities on the environment and increasing the usage of natural resources sustainably.

## Objective Green Office

To create a healthier working environment, reduce pollution and reduce energy consumption.

***“Encourage green practices and educate the people of UTM on the importance of conserving the natural resources to preserve the earth that we live in for our future generations”***

## Green Office Committee (GOC)

In UTM, Green Offices are organised by a group of Green Managers and Coordinators appointed by the University across all departments. They constitute a Green Office Committee led by the Registrar Department, aiming to carry out green initiatives in a synergic manner and ensure that the University's community experience sustainable campus life. This aligns with the University's strategic plan as construed in UTM's enVision 2025.

## TOR of GOC

1. To encourage, motivate and inspire people of UTM to participate in activities toward the University's environmental, social and economic goals while fostering a community spirit.
2. To share our green successes (through mediums like forums, sharing sessions, publications, conventions, social media, news hub).
3. To collaborate with internal expertise, NGOs, volunteers, alumni and also our synergy partners (PTJs & external parties) in promoting awareness of sustainable campus experience.

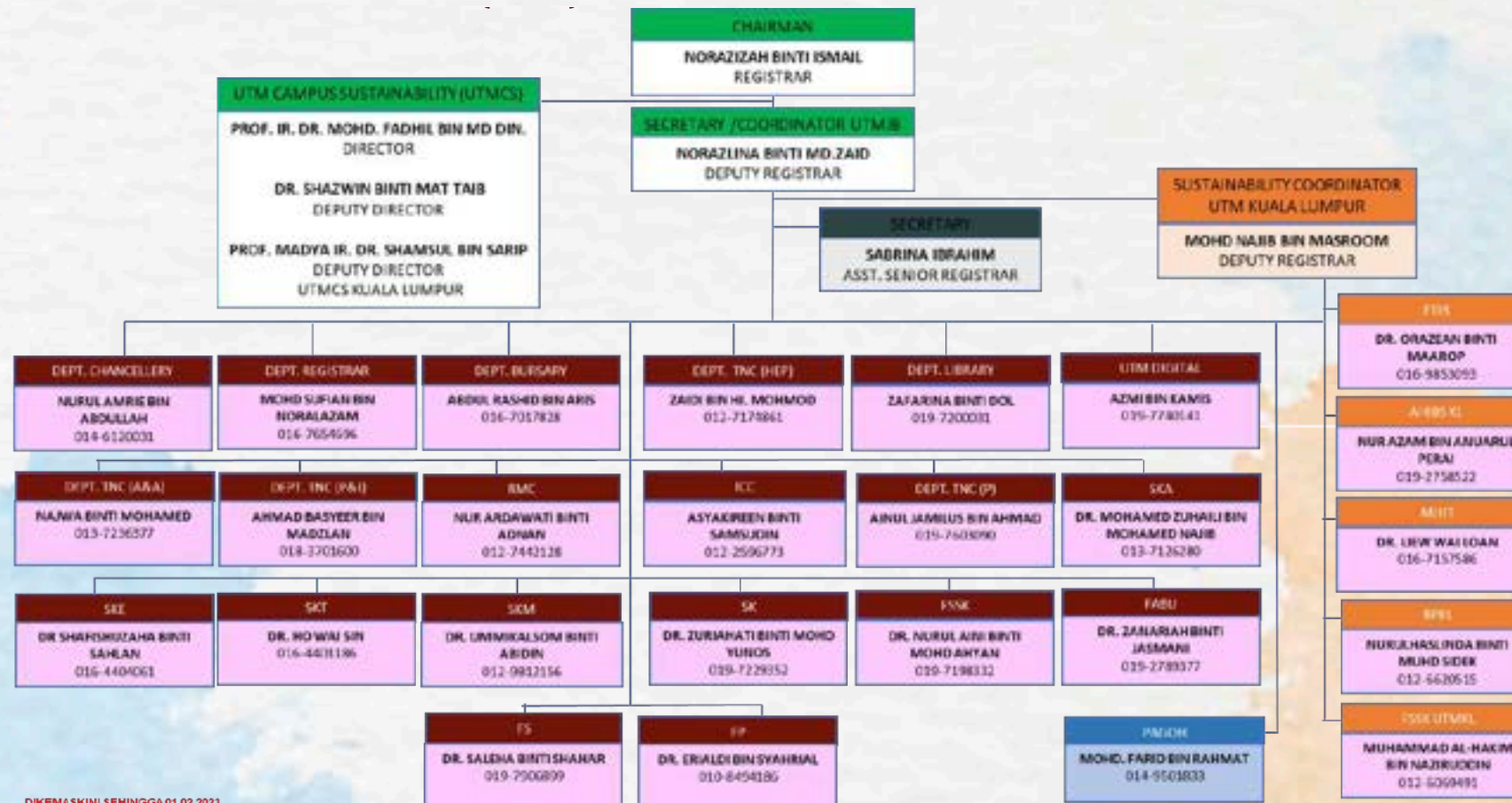
## Role of Green Managers

To coordinate Green Initiatives/Programes aiming to create awareness and to provide a sustainable campus experience to the University's community.



# Organisation Chart

## UTM Green Office Committee (GOC)

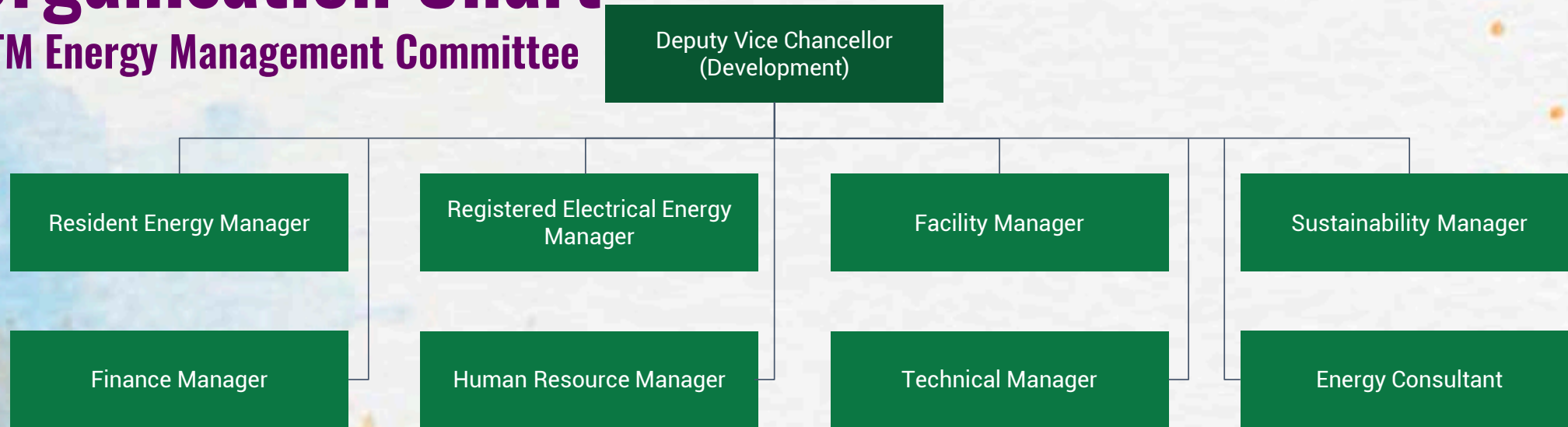


DIKEMASKINI SEHINGGA 01.02.2023



# Organisation Chart

## UTM Energy Management Committee



### UTM Energy Management Committee

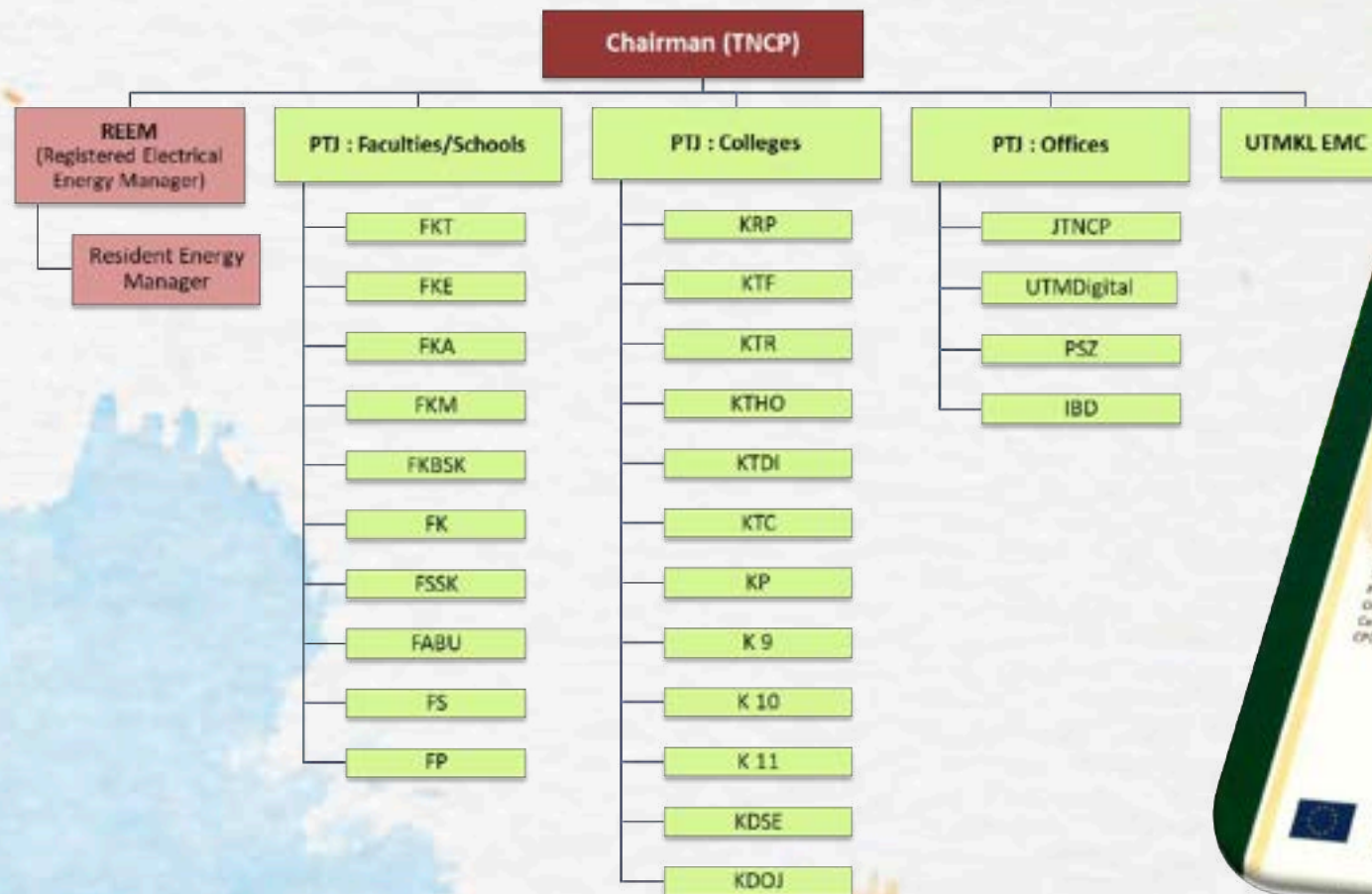
UTM's energy initiatives involve the participation of all levels of its community. The UTM Energy Management Committee is a collaboration of Management and Professional Officers from the Section of Project and Maintenance with internal experts among lecturers and researchers as Advisors, Energy Consultant and Registered Electrical Energy Managers (REEM) from the Faculty of Chemical and Energy Engineering and the Faculty of Electrical Engineering, Faculty of Engineering. In addition, the energy Management Committee at the PTJ level appointed Energy Heroes from support staff groups for each block to assist the committee. Engagement of students, staff and the local community in various sustainability projects and energy initiatives.

### Objective of Energy Management

1. To establish a sustainable energy management system and a culture of conservation within the campus community
2. To reduce carbon emissions through efficient energy management
3. To reduce dependency on fossil fuel
4. To utilize renewable energy
5. To be a leader in energy sustainability and to promote the best practices locally and internationally

# Organisation Chart

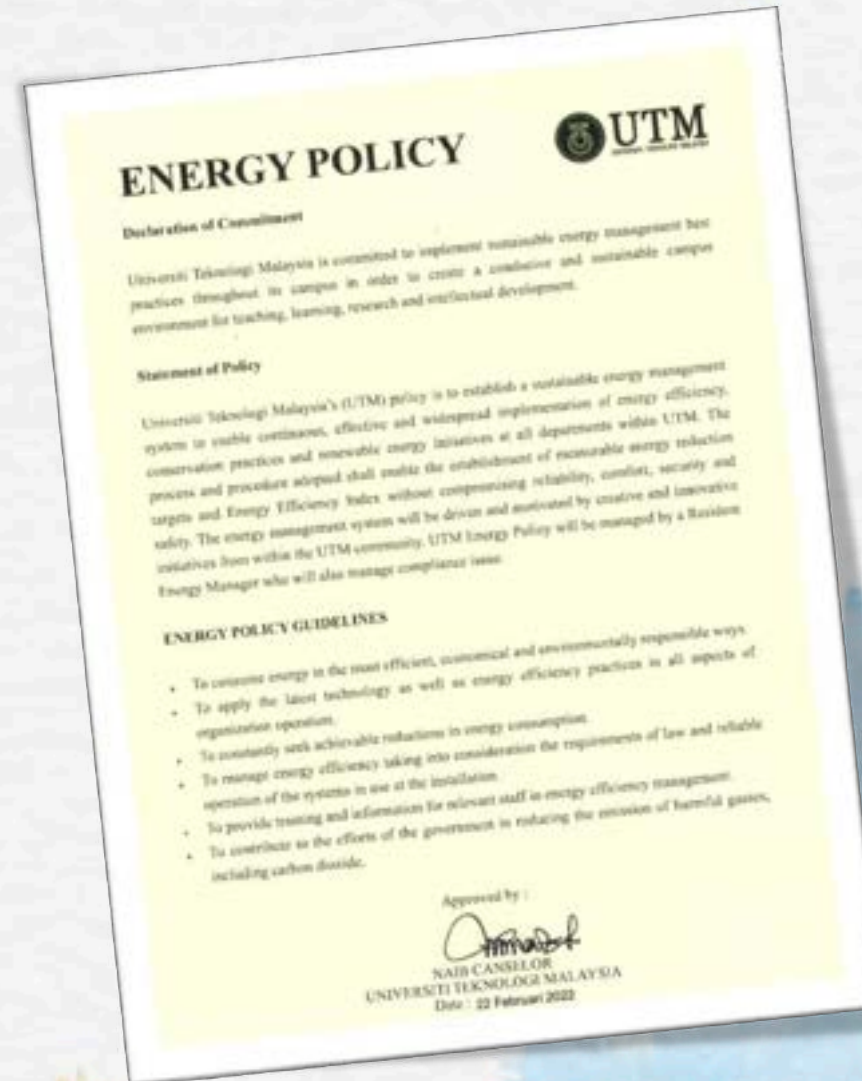
## UTM-PTJ Energy Management Committee





# Energy Policy

UTM Energy Policy has been established since 2011 and is constantly being reviewed for improvement





# Energy Awards



Green Electricity Tariff by Tenaga Nasional

Energy Award 2021 Low-Carbon  
Calendar Iskandar Puteri 2021



National Energy Awards - NEA 2022



# Coming and Working Together

UTM is committed to leveraging current networking and partnership platforms to build strategic partnerships in sustainability. Primarily, UTM will facilitate the adoption and implementation of the SDGs as a member of Sustainable Development Solutions Network (SDSN). In this regard, UTM SDSN is committed to supporting the multilevel governance (local, national and global) of SDGs through the upscaling of potential techno-socio solution oriented which are issue or problem based and multisectoral approaches. UTM SDSN also works closely with United Nations agencies, multilateral financing institutions, the private sector, and civil society to contribute to climate-resilient and green growth development.



*“UTM will continue to take the lead in strategising and positioning the university’s standing at global platforms to advance a common sustainability agenda”*

## NATIONAL

UTM is a member of the Erasmus+ CBHE project “Malaysia Sustainable University Campus Network” or known as MYSUN. MYSUN has an overall aim of promoting Malaysian university campuses as ‘living laboratories’ for sustainability and energy efficiency. This national platform promotes coordination and awareness among Malaysia Higher Education Institution campuses to ensure that more concerted activities are in place for a better impact.

## INTERNATIONAL

UTM also has been a member of a number of multilateral organisations and actively participates in international networks and alliances that can be leveraged to advance global university efforts toward a sustainable future. These include, among others, the Asia Technological University Network (ATU-Net), ASEAN University Network/Southeast Asia Engineering Education Development Network (AUN/SEED-Net), Erasmus+, Japanese University Consortium (JUC), Presidents’ Forum of Southeast and South Asia and Taiwan Universities (SATU Presidents’ Forum), South East Asian Technical University Consortium (SEATUC) and World Technological University Network (WTUN).



2

# UTM Sustainability Blueprint 2030



# UTM Sustainability Blueprint 2030

In ensuring the governance of the sustainability agenda, UTM has launched the 2030 Sustainable Blueprint in February 2023. The blueprint acts as a guide for all stakeholders inside and outside UTM to move forward with the sustainability agenda. The creation of the blueprint is based on the global, national, and institutional policies on sustainability. UTM recognizes the importance of sustainability in its operation and integrates it into the University's core value. Serving the three pillars of environment, social and economic practices on campus, six Strategic Priority Areas incorporating 26 components were identified. Under the UTM's core value Sustainability ISES, 18 Strategic Initiatives and 39 Initiatives were detailed out. Each initiative will be implemented under six implementation clusters in three phases for seven years duration. The impact outcomes will be mapped to one main SGD followed by a few other relevant Goals and aligned with the Strategic Trust (ST) and Strategic Priorities (SP) of enVision UTM 2025.

## **Global Framework: United Nations' Sustainable Development Goals 2015-2030**

The United Nations' Sustainable Development Goals (SDG) 2015-2030 becomes the world's framework for sustainable development. Nations around the globe have adopted SDG at the national level including Malaysia. Universities also have adopted SDG as the framework for sustainability.

## **Institutional Framework: enVision UTM 2025**

enVision UTM 2025 is UTM's strategic plan for 2021-2025 periods. It is the current plan of UTM that serves as the institutional framework for achieving the vision and mission of the university. It comprises five Strategic Thrusts and eight Strategic Priorities. Besides, enVision UTM 2025 includes four core values that also cover Sustainability.



# UTM Sustainability Blueprint 2030

## The Key Content

An inclusive strategic action plan is critical to ensure successful implementations of the agenda of Sustainability. An inclusive plan will ensure all parties can be involved regardless of their backgrounds or capabilities. UTM believes that any party can participate in the sustainability initiatives according to their interests and resources.

UTM Sustainable Campus Blueprint 2030 covers six Strategic Priority Areas (SPA):







### SPA 1: Net Zero Carbon Campus

SPA 1 is developed based on one of the SDGs, which is SDG 11: Sustainable Cities and Communities and also the Initiative #27: Low Carbon Cities in the national framework of Environment Sustainability in Malaysia 2020-2030. At the institutional level, SPA #1 aligns with SP3, S6, and S7 of the enVision UTM 2025.

SPA 1 wants to achieve three objectives:

- 1) To establish Net-Zero Transition (NZZ) action plan for the campus
- 2) To implement carbon mitigation projects in UTM
- 3) To foster living labs for decarbonization and resilience adaptation in UTM

### SPA 2: Ecosystem Resilience

SPA 2 is developed from the inputs available in the SDG such as SDG 16: Peace, Justice, and Strong Institutions and also in the Environment Sustainability in Malaysia 2020-2030, specifically the Initiative #4: Strengthening Environmental Governance in Malaysia and in OSHMP 2021-2025 for Strategy #2: Reinforcing Self-Regulation Practice (of Occupational Safety and Health) in the Workplace. At the institutional level (enVision UTM 2025), relevant elements are ST4, S6 and S7.

SPA #2 wants to achieve three objectives:

- 1) To leverage natural resources to improve preparedness and resilience
- 2) To secure resources and increase rate
- 3) To establish conservation, research, and education



### SPA 3: Sustainable Production and Responsible Consumption

SPA 3 is set based on SDG 12: Responsible Consumption and Production and on the national blueprint of Environment Sustainability in Malaysia 2020-2030, such as the Initiative #28: Low Carbon Mobility and Initiative #31: Establishment of Waste to Wealth Facilities. SPA 3 also aligns with enVision UTM 2025, especially ST4, S6 and S7

SPA 3 wants to achieve three objectives:

- 1) To build a knowledge driven smart community
- 2) To nurture sustainable lifestyle
- 3) To spearhead sustainable activities



#### SPA 4: Health and Well-being

SPA 4 is created based on SDG 3: Good Health and Well-being and the national blueprint for OSHMP 2021-2025, specifically Strategy 4: Empowering Occupational Health. At the campus level, enVision UTM 2025 has elements that show the elements of SPA #4, such as SP3, SP4, S3 and S6.

SPA 4 is meant to achieve three objectives:

- 1) To improve health, productive, and conducive campus life health
- 2) To empower the 3S: Sihat, Selamat & Sejahtera Committee
- 3) To execute 3S programmes and carnivals

#### SPA 5: SDGs Localisation

Localising SDGs means implementing the global SDGs to the national and institutional levels. National and institutional frameworks and blueprints in Malaysia have adopted the global SDG set by the United Nation (2015). For instance, Environment Sustainability in Malaysia 2020-2030 has some initiatives that align with SDGs, such as Initiative #1: Clean Rivers that aligns with SDG 6: Clean Water and Sanitation. At the institutional level, enVision UTM 2025 sets the notion of Sustainability as one of the core values of the university and has elements that show commitment to SPA 5, which are ST1, ST3, ST4 and ST5.

SPA 5 aims to achieve three objectives:

- 1) To develop capacity building and engagement plan
- 2) To establish data-driven instruments and mechanisms to improve data sharing and Open Science
- 3) To establish UTM-SDG localisation



#### SPA 6: Networking and Partnership

SPA 6 is set based on SDG 17: Partnerships for the Goals. At the national level, Environment Sustainability in Malaysia 2020-2030 sets Strategic Collaboration as one of four thrusts. Besides, OSHMP 2021-2025 uses the theme of "Inclusive OSH - Togetherness and Commitment". At the institutional level, enVision UTM 2025 puts "Synergy" as one of the core values of the university. Besides, ST3, ST4 and ST5 in the enVision UTM 2025 indicate the elements of SPA#6

SPA 6 aims to attain three objectives:

- 1) To develop leadership in Sustainability through local, global and alumni partnership
- 2) To strengthen UTM brand and visibility to enhance global reputation
- 3) To emphasize on high impact quadruple helix of CSR (Corporate Social Responsibility) project



# The shared space

## Recreational space

**4.1km** Pioneer's trail

**6.0km** Inventor's trail

**3.0km** Thinker's trail

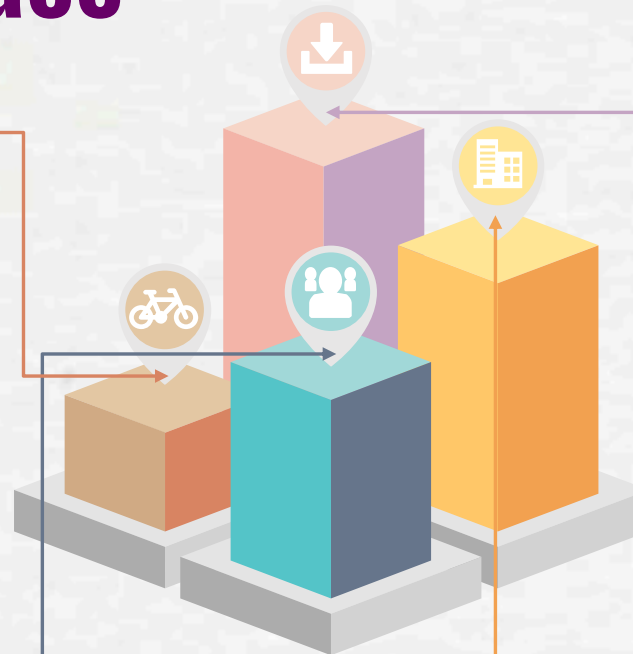
**1.2km** Scholar's trail

**5.0km** Philosopher's trail

## Collaborative space

**1** Institute for lifelong learning

**49** Active spin-off companies



## FLOOR SPACE

**807** Total number of buildings

**1,127,900** m<sup>2</sup>

## DIGITAL SPACE

*UTM Johor Bahru*

**20Gbps** Bandwidth

**5,200** Average users / day

*UTM Kuala Lumpur*

**5Gbps** Bandwidth

**2,009** Average users / day

*Institutional repository*

**57,839** Files deposited to date

# Rethinking the waste in our space



## Solid waste management

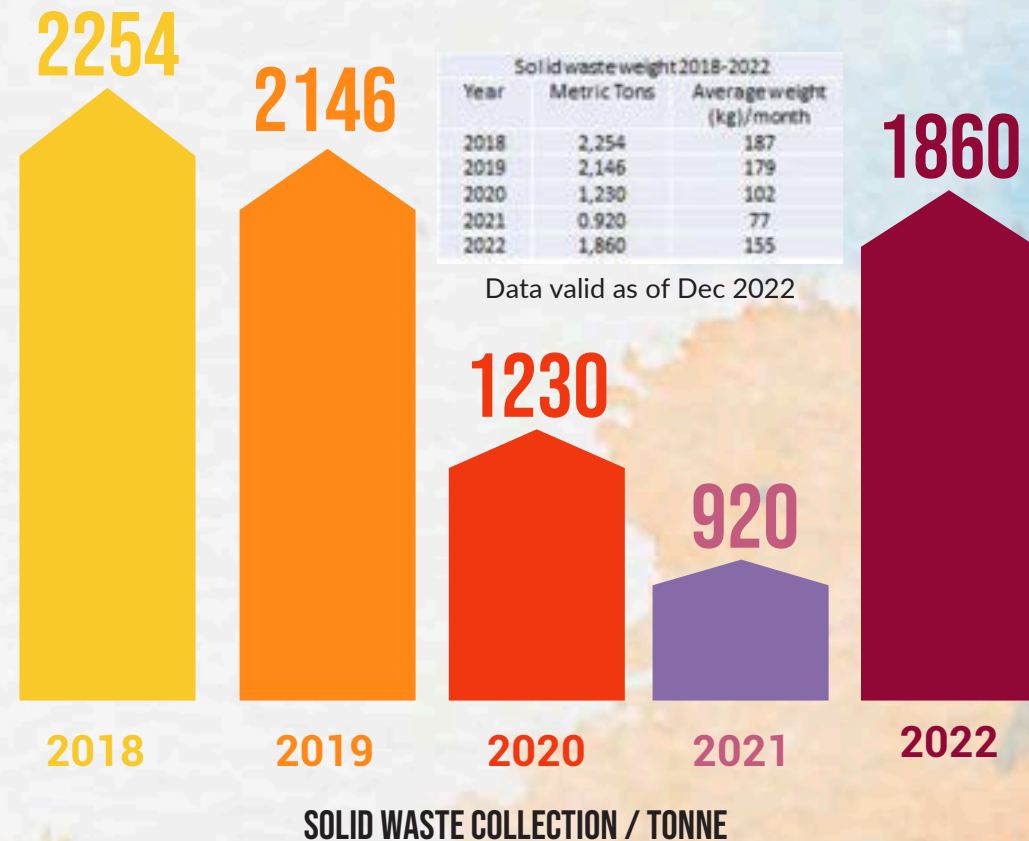
**Annual mass managed:  
1,860 tonnes**

Solid waste: 1,860 ton

1. Unrecyclable waste: 2,464 ton
2. Recyclable waste: 16 ton
3. Food waste: 20 ton

Waste contributed through landscaping works / maintenance: 100 ton – these are converted into organic waste on campus

**Average expenditure/year:  
RM 546,000**







*Image: UTM Office of Corporate Affairs*

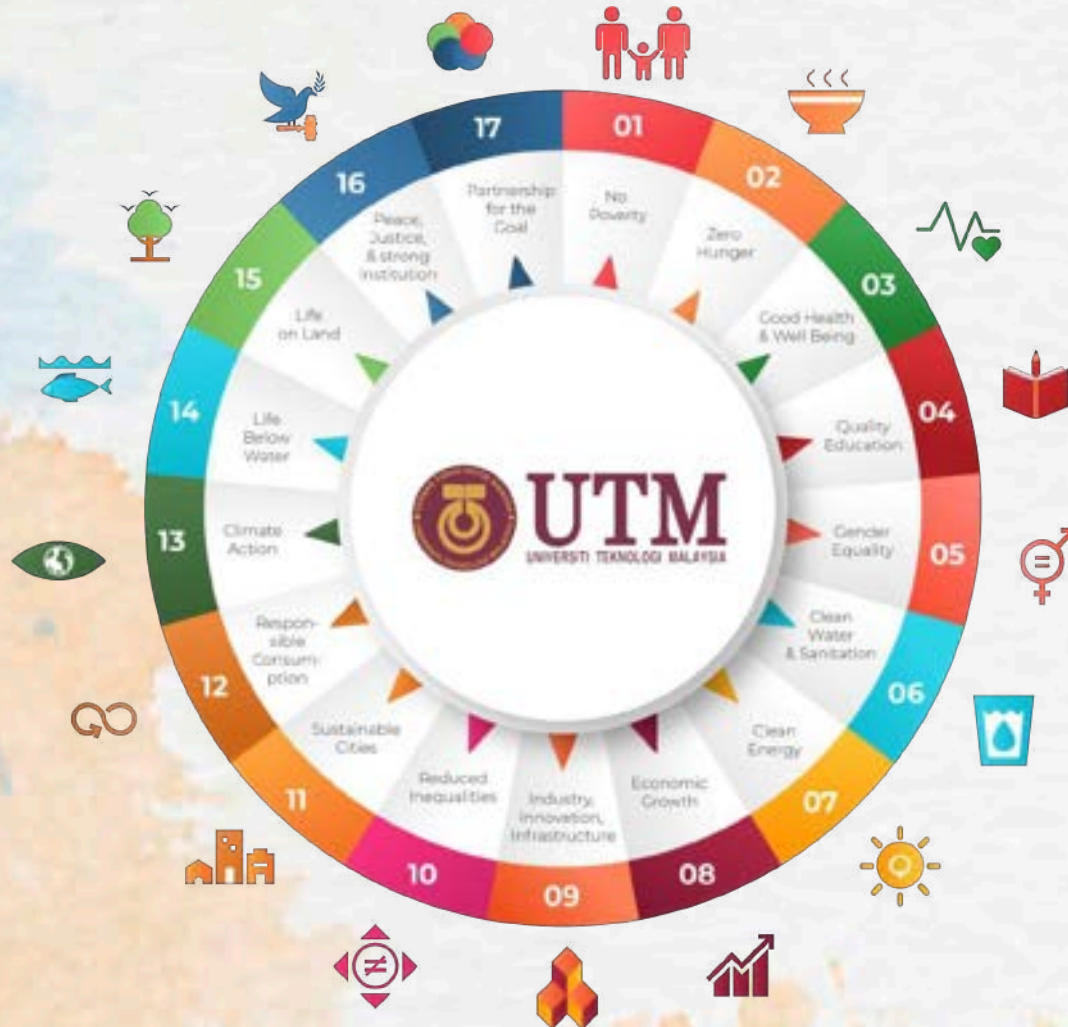


3

# Sustainability Enhancement on SDG



# Sustainable Development Goals



**LEAVE  
NO ONE  
BEHIND**

# Reflections 2021/2022

## NOTABLE PARTNERS

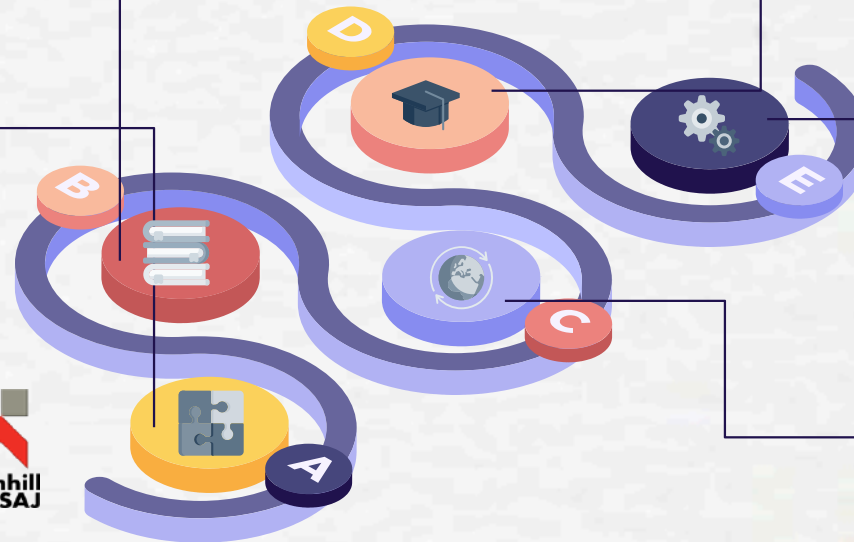
### Educational



### NGOs, Industrial & Local Authorities



**UTMCS**  
**21/22**



## HIGH IMPACT PROGRAMMES

### University

**22** 2021 : 5  
2022 : 17

### Industry

**13** 2021 : 3  
2022 : 10

### International

- 3**
- RCCE 1 & 2
  - CONFERENCE MYSUN
  - DER ROCHER WEBINAR





# NO POVERTY

*“End poverty in all its forms everywhere”*





# No Poverty

## MAIWP Packaged Food Distribution

The effort carried out by MAIWP was greatly welcomed by HEP UTM Kuala Lumpur to reduce the burden of students living in residential colleges or in rented houses around the campus. UTM at HEP has a high hope that the MAIWP can continue this noble effort to ease the burden of our students.

This free meal will be enjoyed by 23,400 recipients within six months in 2021.







## No Poverty

Special donation to UTM staff affected by the flood

PIUTM has channeled a small donation to ten UTM staff who were affected by this disaster in the form of cash.

Donations were presented by PIUTM representatives led by PIUTM Assistant Director, Dr. Naemah bt Hamzah assisted by Ustaz Mahyuddin, Ustaz Haizal, Ustazah Rahmawatul Husna and Ms Norlita.







**PUSAT ISLAM**

- FAK. TAMARINDI ISLAM  
*Faculty of Islamic Civilization*
- KOLEJ TUANKU CANSELOK  
• KOLEJ 9 & 10
- KOMPLEKS SUKAN  
*Sports Complex*
- STADIUM & KOLAM RENANG  
*Stadium & Swimming Complex*
- PUSAT KAUNSELING & KERJAYA  
*Centre for Career Development & Counselling*
- PUSAT PENYELIDIKAN FIQH SAINS & TEKNOLOGI  
*Centre of Research & High Science & Technology*  
*(P2HST)*
- SCHOLAR'S INN
- KOLEJ PERDANA

Image: UTM Office of Corporate Affairs

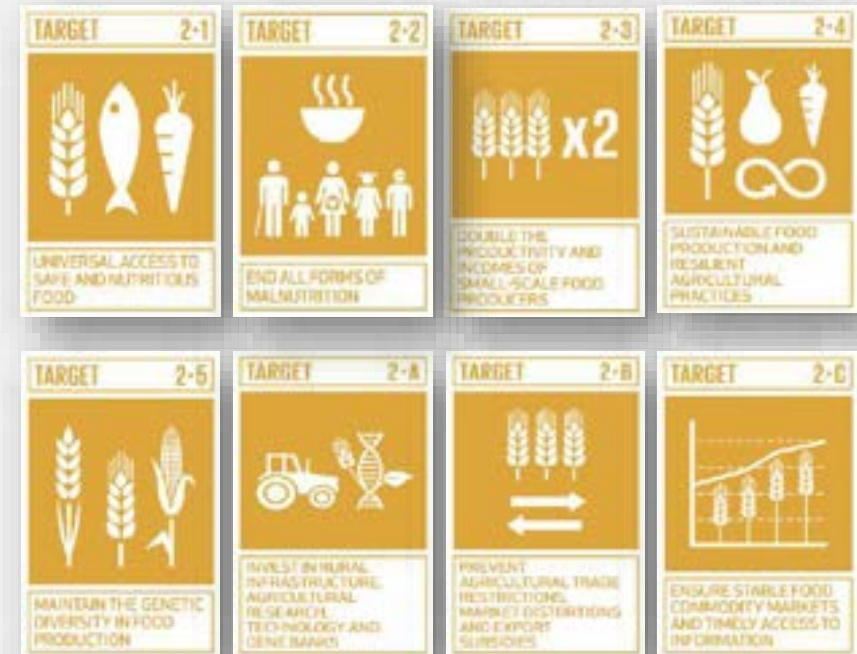


# 2



## ZERO HUNGER

*“End hunger, achieve food security and improved nutrition and promote sustainable agriculture”*





# Zero Hunger

## Food @ Campus Initiative Program

Implementation of Food @ Campus Keluarga Malaysia under the initiative of:

The Ministry of Higher Education (KPT), through Yayasan Kebajikan Siswa Keluarga Malaysia (YKS), aims to ease the burden of our B40 students in a targeted manner by providing food aid to students, who have been identified by their respective HEIs.



**RM 120,000.00**  
Allocated

**Food Aid**



**B40 Category**

**600 Students**







# Zero Hunger

Food-sharing initiatives for UTM students

UTM, through the Centre for Community and Industry Network (CCIN), supports the initiative carried out by the UTM Islamic Centre by being involved in an enterprise of free food distribution to campus residents, especially to students, in line with the university's desire always to display a high level of caring towards those in need.

This program helps to reduce food waste by redirecting surplus food to those in need and promoting more sustainable and equitable food systems.

This program was attended by the Director of CCIN, YBr. Associate Prof. Dr. Johari Bin Surif, Deputy Director of CCIN, Associate Prof. Dr. Mohamad Hafis Izran Bin Ishak, Senior Assistant Registrar, CCIN, Ms. Fasihah Binti Mohd Jaslan, and as well as the CCIN staff.





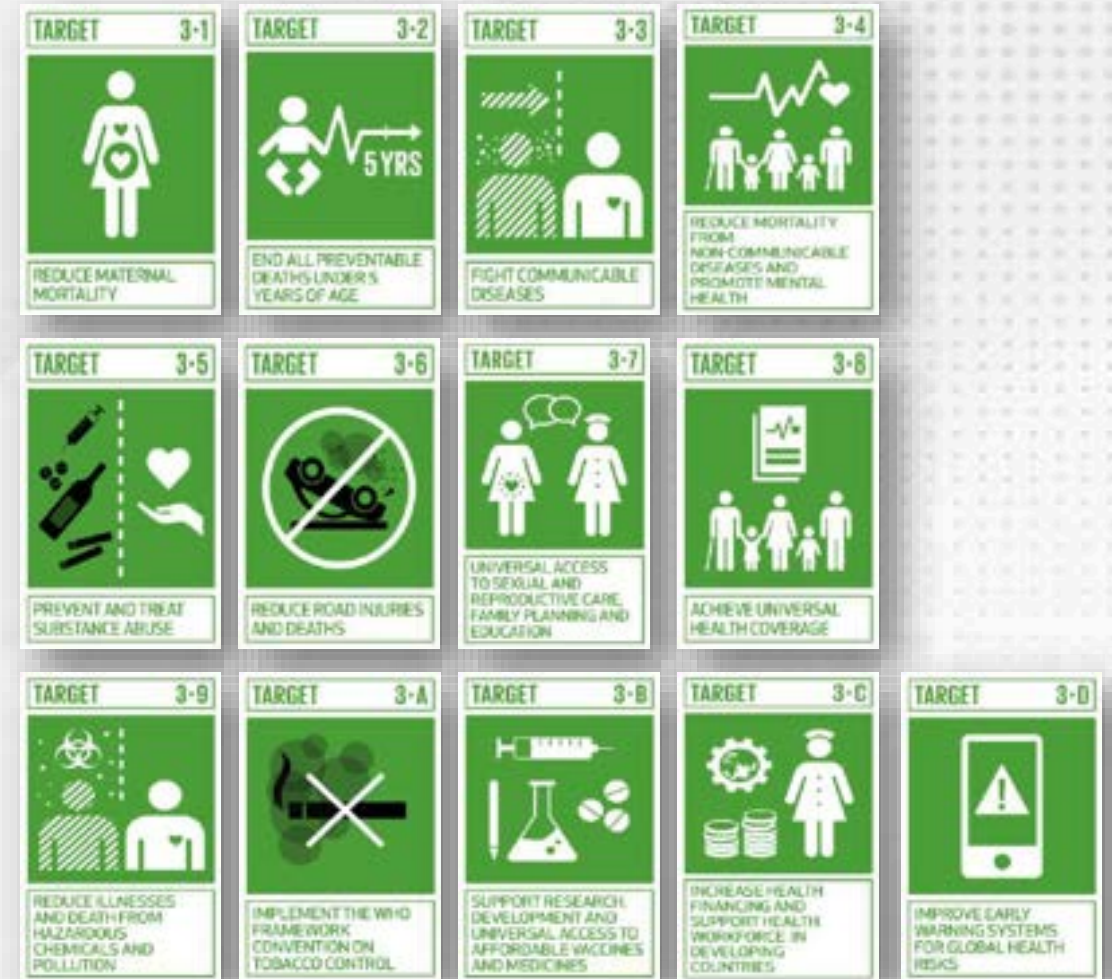


*Image: UTM Office of Corporate Affairs*



# 3

## GOOD HEALTH



*“Ensure healthy lives and promote well-being for all at all ages”*



# Good Health

Kembara Kayuhan UTM 50 Tahun

## Synergy

- UTM Campus Sustainability
- Registrar's Office UTM Kuala Lumpur
- UTM iLeaGUE
- Office of Student Affairs UTM Kuala Lumpur

## Distance

405 km across 5 states (Kuala Lumpur - Selangor - Negeri Sembilan - Melaka - Johor) from 8th - 12th June 2022



## Participants

25 Staffs, Alumni & Students led by Pro-Vice Chancellor UTM Kuala Lumpur



## UTM50 tahun



In conjunction with UTM's 50th anniversary, the Universiti Teknologi Malaysia (UTM) has held a long-distance cycling involving four states.

## Goals

- Foster unity & love between university students in UTM through recreational activities.
- Fuel the spirit and atmosphere of UTM's 50th Anniversary
- Promote recreational activities in achieving a good level of health in the aspect physical, mental, & spiritual
- Help university students achieve work and life balance or 'work-life balance'

SCAN ME !







# Good Health

Kembara Kayuhan UTM 50 Tahun





# Good Health

## Brisk Walk and Plogging

**BRISK WALK & Plogging**  
JABATAN TIMELIAN NAIB CANSOLOR (HEP)

**Mata CPD disediakan!**

*Alur Cara Program*

Masa	Pertemuan
8.10 pagi	Pendaftaran Peserta
8.15 pagi	Kata-Kata Motivasi By Arman bin Md Yasin (Naib Penasihat) Jabatan Timelisan Naib Cansolor (HEP) (Naib Pengerusi) UTM Johor Bahru
8.20 pagi	Taklimat (Unit Saka)
8.30 pagi	Senaman Regangan
8.40 pagi	Program Berjalan - Gerakan Regeras - Lari Berjalan Cawangan Sultan Ibrahim - Maruulul Jalan ke Peta Cawangan UTM - Larian Menari, Taman Tropika UTM dan Task Baru UTM - Parking Bangunan Pemaduan
10.20 pagi	Program Selesai

**Tarikh/Hari:**  
28 Julai 2022 (Khamis)

**Masa:**  
8.10 pagi - 10.30 pagi

**Tempat:**  
Bangunan Cansolori Sultan Ibrahim,  
Laman Menanti dan  
Taman Tropika UTM

• Makanan disediakan secara bergilir.  
• Penggunaan botol air mineral tidak dibenarkan demi keselamatan alam. Sila bawa botol air sendiri.

www.utm.edu.my/ptj/ | UTM Social Media | #PTJUTM

The Department of the Deputy Vice-Chancellor (Student Affairs) in the initiative to continue the sustainability agenda and support the Sustainable Development Goals (SDG) initiative by making progress in building an environmentally friendly campus community through Brisk Walk & Plogging activities. This activity, shows that the campus community has been educated to care about campus sustainability and shows the dedication of the Responsibility Center (PTJ) in realizing the idea of a clean and sustainable campus plan. The program was held on 28 July 2022 involving every representative from the unit/centre/department of the Deputy Vice-Chancellor's Department (HEP) participated in this program. According to the Head of Administration, Yasin, this the desire to achieve the the community, a sustainable



Mr Arman bin Md. program can support help the country SDGs by educating especially in adopting lifestyle.



# 4



## QUALITY EDUCATION

*“Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”*





# Quality Education

## Open Distance Learning (ODL)

The achievement of the SDG 4 goal requires new and innovative approaches to overcome the challenges that stand in its way. Open and Distance Learning (ODL) allows qualified candidates to access education from any location and at their own pace. Therefore ODL provides quality education to many students, helping in considerable measure towards realising the SDGs in education. The ODL education system focuses on open access to education and training to free the learners from the constraints of time and place. It offers flexible learning opportunities to individuals and groups of learners. Our ODL programs allow students to access their learning material via an online learning management system ([odlsystems.utm.my](http://odlsystems.utm.my)). Class sizes are kept small (capped at 20 students) to maximise interaction between students and instructors.

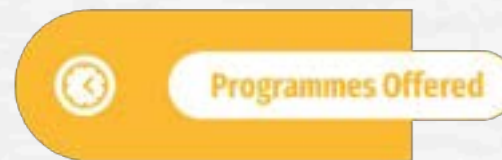




# **Quality Education** Open Distance Learning (ODL)

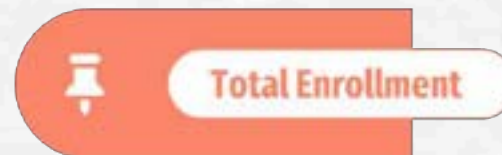


<http://www.odl.utm.my>



### 3 Programmes Offered:

- Master of Business Administration
- Master of Education (Educational Technology)
- Master of Forensic Engineering



### 293 Students

- 280 Local
- 13 International from 7 Countries



### 3 Faculties

- Azman Hashim International Business School
- School of Education
- School of Civil Engineering





# Quality Education

## UTM Micro Credential

The program is first initiated in December 2020 with four micro credentials focusing on English language learning for MUET.

It has since then, expanded to offer more online courses that anyone can enjoy at any time and anywhere at mooc.utm.my.

Participants will be able to learn and earn a digital credential which they can showcase at their professional network or social media.

This program has benefited many professionals and individuals, including students to upskill and reskill themselves from quality online courses offered by UTM experts.



<https://utmcdex.utm.my/micro-credential/>



29

Number of MCs offered



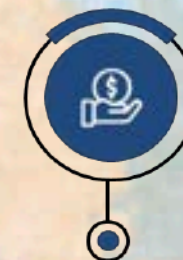
180

Number of MCs in the pipeline



108

Number of enrolments in MCs until April 2022



3

MC Project with Industry: SKA-CIDB, SK-JPNJ, Experior Technology





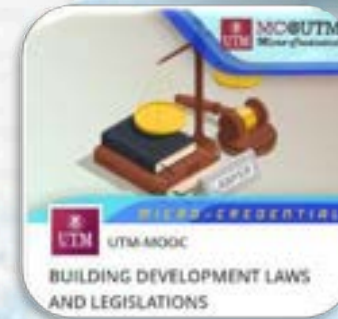
# Quality Education

UTM MOOC

UTM through its experts, offers high quality Micro-Credential courses to support lifelong learning for the public, targeted market, industries and their own students and staff. The developed courses can be used for reskilling and upskilling purposes, gaining new knowledge and can also be stacked to get credit transfer. The program is first initiated in December 2020 with four micro-credential courses focusing on English language learning for MUET. It has since then, expanded to offer more online courses that anyone can enjoy at any time and anywhere at [mooc.utm.my](http://mooc.utm.my). Participants will be able to learn and earn a digital credential which they can showcase at their professional network or social media.



<http://mooc.utm.my>







*Image: UTM Office of Corporate Affairs*





# 6 CLEAN WATER

*“Ensure availability and sustainable management of water and sanitation for all*





# Clean Water

## The Water Security and Sustainable Development Hub

The Water Security and Sustainable Development Hub is a five-year project that aims to improve and achieve water security for a resilient future. The Hub comprised of several institutions from different countries including the United Kingdom, Malaysia, India, Colombia, and Ethiopia. Funded through Global Challenges Research Fund (GCRF) by the United Kingdom Research and Innovation (UKRI), the Hub's vision is to enable sustainable water security through a transformative system approach that better understands water systems, values all water aspects and strengthens water governance to enable integrated water management.

Under Malaysia Collaboratory, Universiti Teknologi Malaysia (UTM) through the Centre for Environmental Sustainability and Water Security (IPASA) and Newcastle University Medicine Malaysia (NUMed) work together side by side to assist the government in realising integrated management of Sungai Johor River Basin. With a fund amounting to about RM 7mil., the study looks into various aspects of river management including water quality, hydrology, climate change, health, values and governance.

Various management tools have been developed and engagements with various stakeholders and communities have been conducted throughout the 5-year study period (2019-2024).







# Clean Water

Groundwater For Farming Irrigation @UTMPagoh



**36,000 Liters/Month**

Estimated Average  
Consumption of  
groundwater



**UTM Pagoh  
Campus  
Research  
Farm**



**Key Resources**

Groundwater pumped  
from nearby water  
spring using gasoline  
pumps

*"Irrigation land accounts for roughly 20% of the  
global cultivated area and contributes to about 40%  
of crop production."*



**Outcome**

More reliable and  
resilient crop  
production with  
relatively good  
profitability



**Impact**

Impact  
irrigation from  
groundwater stock has  
increased efficiency  
and enhanced water  
sustainability in some  
water scare areas.

**SCAN ME !**







# Clean Water

## Water In The Community

One of the approaches that could be applied is sustainable education, whereby educators can create a friendly medium or tool to guide and assist the public in understanding the vital of protecting our water source. Universiti Teknologi Malaysia (UTM) and the local authorities have also been conducting community sustainability awareness programs or initiatives for the past few years.

Among them was the 'Green Science for the Community', with the collaboration between **Majlis Bandaraya Iskandar Puteri** (MBIP), ThinkCity, Faculty of Science, Faculty of Engineering, and the Student College Committee of **Kolej Tun Razak**, using interactive educational activities to sustain people, communities and ecosystems. The program also focused on awareness and empowering the community on the issue of river pollution which is in line with the Skudai River Conservation Plan, carried out by MBIP since early 2018. <https://science.utm.my/>

Don't Make the Water Sick!

By **MOHAMED ZUHAILI MOHAMED NAJIB**







7

# CLEAN ENERGY

*“Ensure access to affordable, reliable, sustainable and modern energy for all”*





# Clean Energy

## Green Electricity Tariff - GET

Green Electricity Tariff (GET) is a programme introduced by TNB as an option to enable customers to reduce carbon footprint in electricity consumption.

The benefits of GET;

- 1) Support towards growth Renewable Energy (RE) industry in the country
- 2) Support global energy transition to limit climate change
- 3) Meet Environmental, Social & Governance (ESG) commitment and sustainable targets

GET subscribers are entitled to Malaysia Renewable Energy Certificate (mREC).

UTM subscribes for 5,000 blocks (5,000,000 kWh) with additional charge of RM0.37/kWh

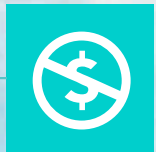






# Clean Energy

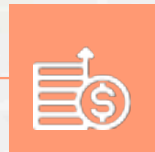
## Energy Saving Measures (ESM) Initiatives



### 01

#### No Cost

- Load Factor Monitoring (OPTR Discount)
- Monthly Walkthrough Audit by Energy Heroes
- Time Management & Housekeeping (Initiative At PTJ Level)



### 02

#### Low Cost

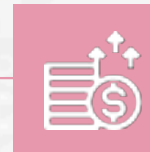
- Energy Awareness Program (Talk/Posters/ Banners/ Stickers)
- Internal Training/ Workshop For Energy Managers & Technical Staff
- Energy Audit
- UTM Energy Showcase



### 03

#### Medium Cost

- Delamping & Retrofitting of LED Light
- Automation: Installation of Photocell/ Movement Sensor/Timer For New Installation Under Renovation Works
- Installation of new kWh meter



### 04

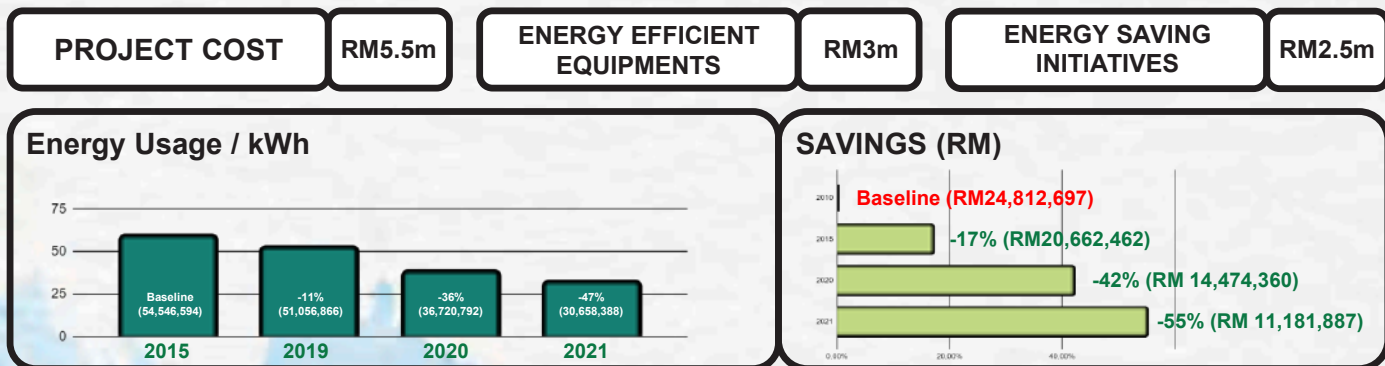
#### High Cost

- Replacement of Air Condition System (Chiller/AHU/ Cooling Tower/ VRF)
- EPC On Street Lighting



# Clean Energy

University Measures Towards Affordable and Clean Energy 2015-2021



A total of 19 houses inhabited by a total of 145 indigenous residents of Kampung Tewowoh in Mersing Johor are involved in the Solar Panel System (PV) and energy limiter installation project as a result of the corporate social responsibility of Universiti Teknologi Malaysia (UTM) and Bank Islam Malaysia Bhd (Bank Islam).







# Clean Energy

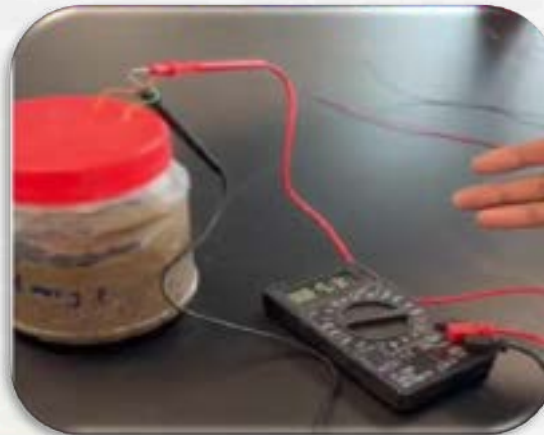
## Theory of Production Bioelectricity Energy From Oil

Invention to achieve insecticidal-free agriculture which can reduce cost, conserve the environment and avoid food contamination from the chemicals used. At the same time, this system was designed to be sustainable with locally produce bioelectricity from Ultisols.

More local soils will be utilized to produce local bioelectricity which can operate insect zapper. This will contribute to insecticidal-free agriculture which is more environmentally friendly,

Due to the cost reduction from the insecticidal application this invention will be one of the best choices for a farmer or all agriculturists.

Through this application system also, which can be sustainable in operation, the potential for application in the future is a must.







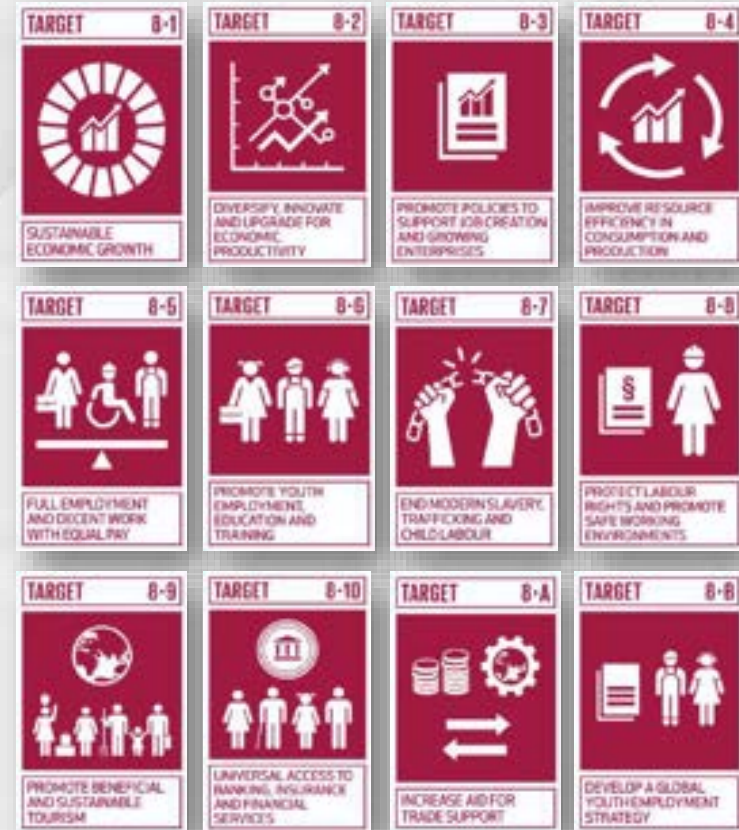
*Image: UTM Office of Corporate Affairs*



# 8

## ECONOMIC GROWTH

*“Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all”*







# Economic Growth

## Securing Resources in Campus

The KTHO Waste to Wealth Hub's implementation has a substantial influence on Sustainable Development Goals (SDGs), industrial synergy, income generation, and the number of participants.

Active collaborations with industrial partners and government bodies has resulted in in-kind sponsorships amounted to more than MYR70,000. Besides generating income from sales of organic chickens and veggies, this project has until now managed to recycle 15 tonnes of horse manure and food waste which were converted into organic compost.

Frequent contact with neighbouring communities has enabled further collaborations which focused on public awareness towards the importance of good practice in solid waste management, particularly food waste, which in return reduced the amount of food waste dumped into landfills. This ongoing project is scheduled to spread its wing by involving more government bodies and higher education institutions in order to gain more academic impact and support. On the other hand, strategic partnerships with industrial partners are definitely a smart approach so that communities of interest may also benefit from this noble project.

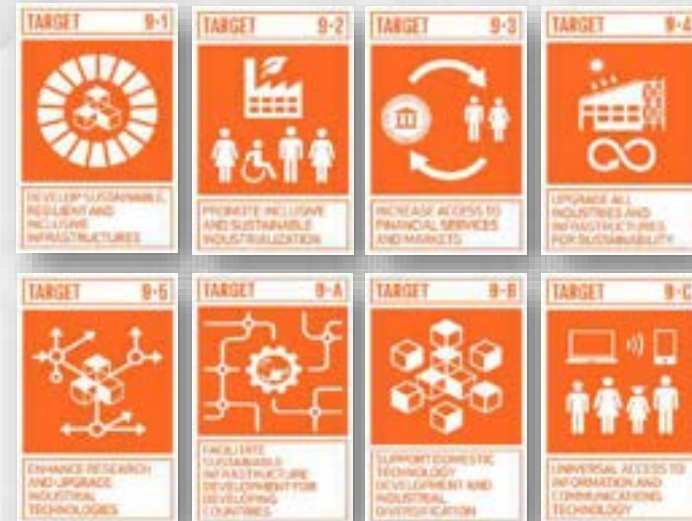






# 9 INNOVATION

*“Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation”*





# Innovation

## Bamboo Avenue

The Faculty of Built Environment and Surveying (FABU), Universiti Teknologi Malaysia (UTM) has come up with an idea to construct a Bamboo Avenue as a living laboratory for campus-community engagement.

The Project Manager, Assoc. Prof. LAr Dr Sapura Mohamad said that this project explored bamboo as a sustainable living material for the campus. The project starts with planning and designing a small open space that acts as a Living Lab for any student's projects related to Bamboo as sustainable materials. The project offers opportunities for students' involvement in designing as well as constructing and planting bamboo for planting materials or structures for recreational and educational activities.

FABU has created an initiative to bring along not only students and academicians for activities in the Living Lab but also support staff to be together as team players in the Rakan Buluh FABU (bamboo friends of the Faculty of Built Environment and Surveying). This entity will together activate any activities related to bamboo in order to enlighten the sustainability and green technologies for the campus communities. Bamboo Avenue not only serves as a green project for UTM but also will become an iconic place for campus communities besides attracting investors from the industry to develop Living Lab physically on campus. The success of attracting investors to develop Living Lab physically and virtually will help to achieve UTM's goal as a Sustainable Campus Living Lab, which will certainly provide many benefits to UTM as a research university.







# Innovation

## Overview on UTM Innovation and Commercialisation



<div>1.6M</div> <div>Licensing Revenue</div>	<div>161</div> <div>Technologies Generated</div> <div><div>• More than RM100,000 royalties from 5 technologies</div></div>	<div>338 M</div> <div>Research Funding Awarded (RM)</div>	<div>2,825</div> <div>Active Technologies</div>
<div>9.05M</div> <div>Gross Income Commercialization</div>			<div>207</div> <div>New Technologies</div>
<div>111</div> <div>Active Licenses</div>	<div><div>UTM</div><div>2022 Fast Facts</div><div>Innovation and Commercialisation Centre (ICC)</div></div>		
<div>4</div> <div>New Spin off Companies</div>	<div>29</div> <div>New Industries Research Agreements</div>	<div>4.61%</div> <div>Commercialisation Rate</div>	<div>5,215</div> <div>Invention Disclosures</div>
<div>42</div> <div>Spin off Companies</div>			<div>244</div> <div>Active Patents Granted</div>
		<div>22</div> <div>Total New Sponsored Research Agreements</div>	<div>35</div> <div>New Patents Granted</div>

Data as 2017 - 2022



### Our Vision

To be a preferred IT solution provider.

### Our Mission

To empower Business and Education by increasing productivity, profit, efficiency and effectiveness.

### Our Team

Dedicated, versatile, nimble and place high importance on clients needs, quality and timely deliveries.



### Products



### SUCCESS STORIES OF UTM SPIN OFF COMPANY



Quick Facts	2018	2019	2020	2021
Revenue	RM 7.7mil	RM 11.4mil	RM 5.9mil	RM 10.6mil
Alumni (UTM)	16	21	9	12
Internship (UTM)	5	5	5	5

### Contribution to UTM

#### Endowment

**> RM 0.9mil**

(School of Computing & Research Contract)

#### IP Licensing

**RM 10,000/year**



# 11

## SUSTAINABLE CITIES

*“Make cities and human settlements inclusive, safe, resilient and sustainable”*



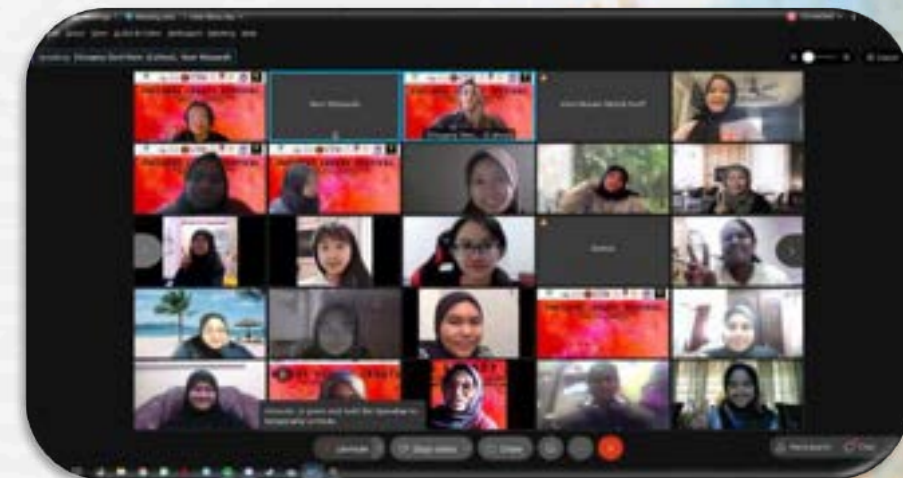


# Sustainable Cities

## Cultural Legacy Festival

This program was held from 13 August 2021 until 27 August 2021, which was for two weeks. Throughout the two weeks of this program, various activities were carried out. There were three competitions, two workshops, and three talks held throughout the two weeks. The first competition was called "Museum at Home" where TOP three prizes were awarded to the winners. Then, a "Batik Workshop" was held for students and public participants followed by a "Batik Competition" and TOP three prizes were given to the winners as well. In addition, a "Calligraphy Workshop" was held for students and public participants followed by a "Calligraphy Competition" and TOP three prizes were awarded to the winners as well. In addition, there were three lectures organized throughout the two weeks of the program. Each program has a Kahoot quiz for participants to win prizes worth up to RM30 for each talk.

1. To promote culturally based art and design which indirectly enhances the Malaysian identity.
2. This activity ensures our UTM Students and public participants are able to utilise their time beneficially during this pandemic lockdown
3. To ensure continuity of this cultural legacy to the next generation.
4. To create awareness of multicultural diversity in Malaysia.





# 12

## RESPONSIBLE CONSUMPTION

*“Ensure sustainable consumption and production patterns”*





# Responsible Consumption

KTHO From Waste To Wealth Hub



## Organizer

Kolej Tun Hussein Onn



## Mission

Produce holistic talents with an entrepreneurial and innovative mindset



## 300

UTM students, staff, and industry partners



## Impact

Generate revenue for the institution



## Goals

Educate UTM staff and students on sustainable agriculture and the social entrepreneurial concept.



## 13th March 2021

Date launched



## Benefit

Integrate and balance up the environmental, economic, and social factors



## Method

Utilized campus food waste and leftovers as organic fertilizers for the commodities crops planted.







# Responsible Consumption

Clean Our Plate 11.0



## Organizer

AIESEC UTM



## Key Activities

- Training the trainer
- Awareness workshop
- Pitching competition
- Crowdfunding campaign
- Online competition
- Home composting challenge
- Social media challenges.



112.5Kg

Compost Generated



## Goals

Tackle Food Waste



78.26Kg

Food Waste Collected



RM280.90

Fund Raised



35

People Received  
Donations



39.58Kg

Food Donated



145

People Committed to  
Reducing Food Waste

Clean Our Plate is an initiative which began in 2016 under AIESEC. This programme itself is unique as it was planned by youths to tackle food wastage, a global phenomenon where Malaysia herein is not excluded. The programme itself is in line with the SDG 3 good health and wellbeing, SDG 11 sustainable cities and communities also SDG 12 responsible consumption and production. Household waste was the common denominator of food wastage.

In the year 2020 and 2021, the world was stricken by the COVID-19 pandemic. The most affected groups were the B40s as restrictions (to curb the pandemic) have led to hunger and malnutrition. Thus, to alleviate this issue at hand, AIESEC UTM has continued this initiative with the Clean Our Plate 11.0 programme. Under this programme, several activities were carried out with the keywords of smart, measurable, actionable realistic and timely or simply known as SMART. The key activities are train the trainer, awareness workshop, pitching competition, crowdfunding campaign online competition, home composting challenge and social media challenges.



# Responsible Consumption

## Recycled Day

The UTM Kuala Lumpur Recycling Program was held on 29 March 2022 (Tuesday) and is a joint program organized by the UTM Kuala Lumpur Registrar's Division Sustainability Committee & UTM Campus Sustainability (UTMCS). The objective of this program is to apply 3R conservation practices among UTM Kuala Lumpur residents. The implementation of the program this time focuses on the collection of three recyclable materials, namely the collection of used clothes, used cooking oil and also used electronic goods (e-waste). Most of the citizens of UTM Kuala Lumpur supported and made this program a success by handing over some items that had been collected for recycling.







# Responsible Consumption

## eWaste

UTMDigital has organised an e-Waste Collection Programme in conjunction with UTMDigital's 50 Years of UTM Celebration. The program was in collaboration with the CBH Recycle (M) Sdn. Bhd. The program was conducted for almost a month from 4 to 30 August 2022. This program targets the involvement of the campus community comprising students and staff to support the controlled disposal of electronic waste to maintain the environmental sustainability.

A total of three rounds of e-waste collections were carried out during the programme, which managed to collect 246 kilograms of e-waste items. The collaboration and encouraging response from the campus community provide an avenue for UTMDigital to carry out further programmes such as this in the future.





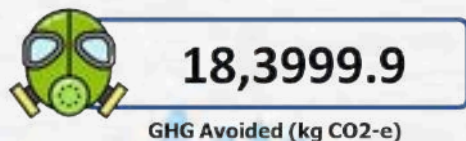
# Responsible Consumption

## Recycle Fabric Bin @ UTM

Recycle fabric bin located at FSSH Universiti Teknologi Malaysia Johor



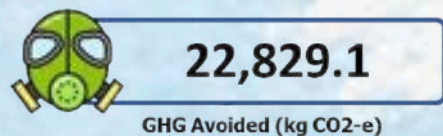
**2020 - 2022**



Recycle fabric bin located at KSJ, Masjid UTMKL and Residensi Universiti Teknologi Malaysia Kuala Lumpur



**2020 - 2022**







# 13 CLIMATE ACTION

*“Take urgent action to combat climate change and its impacts”*



# Climate Action

## Low Carbon Energy Use

The electricity mix in Malaysia comes from a mix between natural gas, coal and hydro power. Using a conversion of 0.585kgCO<sub>2</sub>/kWh from CDM grid electricity emission factors, this table shows the carbon emissions between 2019 to 2021. UTM has reduced its carbon emission by 8,639.55 tonnes CO<sub>2</sub> since the implementation of SREMP.

Through UTM Smart and Resilient Energy Management Programme (SREMP), several energy-saving initiatives have been implemented and it has successfully reduced the electricity consumption (kWh) by 11% in 2019. During the Covid-19 pandemic crisis, energy bills were expected to be lower as compared to 2019. The continuous implementation of energy-saving initiatives and activities has shown further (kWh) reduction by 47% in 2021 when compared to 2015 and a total of 6 million kWh (17%) in 2021 as compared to 2020.



Year	kWh	CO <sub>2</sub> Emission (kg CO <sub>2</sub> /kWh)	CO <sub>2</sub> Reduction (kg CO <sub>2</sub> /kWh)
2019	51,056,866	29,868,267	-
2020	36,720,792	21,481,663	8,386,603
2021	30,658,388	17,935,157	3,546,506
Total CO <sub>2</sub> Reduction			11,933,109

Carbon Emission 2019-2021





# 14

## LIFE BELOW WATER

*“Conserve and sustainably use the oceans, seas and marine resources for sustainable development”*





# Life Below Water

Project Life Aquatic MJIT UTM

## OBJECTIVES

**Project  
Life  
Aquatic**

water safety. swimming. lifesaving

### REVENUE GENERATION

Various programmes open to the Malaysian public, and CSR activities (sponsorships etc) to special needs (disabled) and B40 communities. As of December 2022, total revenue generated RM72,350.00.

### EDUCATION & AWARENESS

Enhancing the education and awareness of water safety, swimming and life saving to Malaysian adults through innovative programmes.

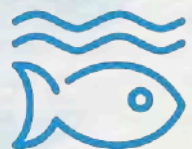
### SYNERGY

A unique platform for collaborative efforts between various parties (industry players, NGOs, agencies, communities, etc) in water safety, swimming and life saving (aquatic industry as a whole).

SCAN ME !

Established in January 2022 under VOT1967 (UTSB), and successfully run without any financial funding from UTM or other parties. Project Leader: Dr. Rahayu Tasnim





# Life Below Water

## Sea Of Life: An Initiative of UTM College 9 & 10 to Tackle of Turtle Extinction

Supporting aquatic ecosystems through action to promote conservation and sustainable utilisation of the oceans, seas, lakes, rivers and marine resources

The Universiti Teknologi Malaysia (UTM) College 9 & 10 Student College Committee (JKM K9 & 10) organized the Sea of Life program "Community Exploration, Natural Plants and Marine Life" for four days and three nights at Kampung Juara, Tioman Island. This marine life conservation delegation consists of 16 students and 10 UTM staff. In line with UTM's core values, this UTM Top Bidder program has synergized with Prof. Associate Dr. Malarvili, along with his research team, Juara Turtle Project and Juara National School. In the afternoon, students left for Juara Turtle Project for a sharing slot with their representatives. Juara Turtle Project is a non-governmental organization active in turtle conservation efforts on Tioman Island. The afternoon slot is filled with briefings on various information related to turtles such as the types of turtles, the life cycle of turtles and the latest turtle conservation efforts on Pulau Tioman. Students were also taught how to make turtle hatchery nests for the transfer of turtle eggs that lay to the coast. The second day ends with Night Patrol where each participant will patrol the beach to look for turtles that lay eggs. Patrolling is done every hour starting at 9pm until 3am. The program continues with Hunt The Island and Beauty Marine Life slots where students have the opportunity to appreciate nature's creations by visiting the islands around Pulau Tioman. Furthermore, participants were given the opportunity to see the beauty of coral reefs around the island during snorkeling activities. The organization of this corporate social responsibility (CSR) program has given awareness to UTM students, especially College 9 & 10 students, about the importance of the marine life ecosystem, in addition to the importance of preserving and conserving marine life for future generations to see.







G17

*Image: UTM Office of Corporate Affairs*



# 15



## LIFE ON LAND

“Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification and halt biodiversity loss”

<b>TARGET 15-1</b>  CONSERVE AND RESTORE TERRESTRIAL AND MARINE ECOSYSTEMS	<b>TARGET 15-2</b>  END DEForestation AND RESTORE DEGRADED FORESTS	<b>TARGET 15-3</b>  END DESERTIFICATION AND RESTORE DEGRADED LAND	<b>TARGET 15-4</b>  ENSURE CONSERVATION OF MOUNTAIN ECOSYSTEMS
<b>TARGET 15-5</b>  PROTECT BIODIVERSITY AND NATURAL HABITATS	<b>TARGET 15-6</b>  PROMOTE ACCESS TO GENETIC RESOURCES AND FAIR SHARING OF THE BENEFITS	<b>TARGET 15-7</b>  ELIMINATE POACHING AND TRAFFICKING OF PROTECTED SPECIES	<b>TARGET 15-8</b>  PREVENT INVASIVE ALIEN SPECIES ON LAND AND IN FRESHWATER ECOSYSTEMS
<b>TARGET 15-9</b>  INTEGRATE ECOSYSTEM AND BIODIVERSITY IN GOVERNANCE PLANNING	<b>TARGET 15-A</b>  INCREASE FINANCIAL RESOURCES TO CONSERVE AND SUSTAINABLY USE ECOSYSTEMS AND BIODIVERSITY	<b>TARGET 15-B</b>  FINANCE AND INCENTIVISE SUSTAINABLE FOREST MANAGEMENT	<b>TARGET 15-C</b>  COMBAT GLOBAL WILDLIFE TRAFFICKING



# Life On Land

## Malaysia's 100 Million Trees Greening Campaign

With the support and cooperation of the Faculty of Built Environment and Surveying (FABU), UTM Campus Sustainability (UTMCS), UTM Center for Community and Industry Network (UTMCCIN), Rahman Putra College Riverdale Club, Johor State Forestry Department, Iskandar Puteri City Council (MBIP) and The Nusajaya Natural Heritage Trust, Sireh Park Iskandar Puteri, the Phase 1 campaign program organized by Living Lab UTM-Johor State Forestry Department (UTM-JPNJ) successfully attracted the participation of 136 volunteers consisting of 76 staff from various PTJ and 60 UTM students. The tree planting program was officiated by Kota Iskandar State Assembly Member, YB Tuan Haji Pandak bin Ahmad accompanied by the Dean of FABU, Prof. Dr. Kherun Nita Ali and UTMCS Director, Prof. Ir. Ts. Dr. Mohd. Fadhil Bin Md Din. GeoTrees application has been used to ensure that the trees planted can be tracked and monitored. The inventor of GeoTrees is Sr. Gs. Dr. Nurul Hawani Idris from the TropicalMap Research group, FABU. GeoTrees innovation is developed as an application and web function to record a tree planting inventory database, monitoring and evaluating tree growth. GeoTrees application has benefited various groups and levels of volunteers across the country, whether school and university students, industry, or the general public, in recording the inventory of trees planted using a mobile application and a unique QR code on each of their trees. A total of 250 tree inventories in Sireh Park has successfully recorded in GeoTrees. In addition, UTM GeoTrees has successfully registered over 3,000 tree inventories in the UTM GeoTrees platform involving various programs organized by UTM with Wancorp, Jungle Ambassador, Treevolution and others







# Life On Land

Green Earth @ UTMRF

Program Green Earth @ UTMRF. Engagement of the Registrar's Department, UTMCS, TNCP Department, Eco Tourism on October 31, 2021







**UTM**  
**MENARA RAZAK**  
**RAZAK TOWER**

CHANCELLERY / CHANCELLORY  
OFFICE OF CORPORATE AFFAIRS / OFFICE OF CORPORATE AFFAIRS  
OFFICE OF INTERNATIONAL RELATIONS / OFFICE OF INTERNATIONAL RELATIONS  
INTERNATIONAL STUDENT CENTRE / INTERNATIONAL STUDENT CENTRE  
SCHOOL OF GRADUATE STUDIES / SCHOOL OF GRADUATE STUDIES  
RAZAK LIBRARY / MENARA RAZAK LIBRARY

Image: UTM Office of Corporate Affairs



# 16



## PEACE AND JUSTICE

*“Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels”*





# Peace and Justice

## University Governance Measures

The fire drill event is an educational sharing session on the significance of preserving personal and community safety at home or in public areas rather than the threat of danger that is likely to occur purposefully or inadvertently. The session took place in a public place which is at MA1 block at Kolej Tun Dr Ismail, at 10:00 p.m. This sharing session was carried out with the cooperation of a number of parties that play significant roles in maintaining the safety of the people, such as the Skudai Fire Station department, UTM Health Center, UTM Real Estate Office and UTM Occupational, Safety, Health And Environment Unit (OSHE), among others. Additionally, there were physical fire drills that were performed involving the students. This programme aims to provide participants with an awareness of the fundamentals of fire prevention. In addition, the students get real-world experience and exposure to the procedures that need to be followed in the event that an emergency scenario arises as a result of this activity. The purpose of this programme was to broaden participants' understanding of the danger posed by fire. The Student Residential College Committee (JKM) has successfully completed a building evacuation exercise known as a fire drill. There was a demonstration of the proper approach to put out flames and a short presentation provided by firemen discussing the proper use of fire extinguishers and the real fire scenario.





# 17



## PARTNERSHIPS

*“Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development”*







# Partnership

## United Nations Framework Convention on Climate Change (UNFCCC)

Universiti Teknologi Malaysia (UTM) through the UTM-Low Carbon Asia Research Centre (UTM-LCARC) successfully co-hosted an Official Side Event with the Institute for Global Environmental Strategies (IGES), Japan in the much anticipated 26th Session of the Conference of the Parties (COP 26) to the United Nations Framework Convention on Climate Change (UNFCCC) that took place from 1 until 12 November 2021 in Glasgow, UK. The Side Event, themed “Call for an integrative approach: Climate, biodiversity, disaster risk reduction and SDGs”, was organised on 10 November 2021, moderated by IGES’s Integrated Sustainability Centre Program Director, Dr. Junichi Fujino. Through UTM’s effort in strategically partnering with IGES, climate actions and sustainable development efforts in Malaysia’s Capital City of Kuala Lumpur, the premier economic region of Iskandar Malaysia, and the historic and royal Muar District were showcased to international audiences comprising about 40 delegates who attended in person and some 100 livestream viewers. Climate actions and sustainable development efforts in Iskandar Malaysia, Kuala Lumpur and Muar primarily follow the cities’ low carbon society blueprints and climate action plans that were prepared by UTM-LCARC based on the science-to-action (S2A) approach, utilising the internationally recognised Asia-Pacific Integrated Model (AIM). UTM, the only Malaysian public university admitted as an Observer Organisation under the UNFCCC since 2011, has consistently brought to the global community’s attention to UTM and Malaysian cities’ efforts and achievements in addressing climate change and sustainable development since COP17.







*Image: UTM Office of Corporate Affairs*

# 4

**High Impact,  
Showcases and  
Benefits of  
Sustainability in UTM**



# Sustainability Pillars

There are three pillars of sustainability at UTM, which guide UTM Campus Sustainability in advising, planning, and designing sustainability-related activities for the university. :



## Environmental

- Substitute Hazardous Materials
- Reduce Raw Materials & Energy Usage
- Anticipate Regulation
- Reduce Environmental Impact
- Produce Less Pollution & Waste
- Using Fewer Material Resources



## Economic

- Reduce Cost
- Lower Labour Cost
- Join Forces & Synergizes
- Monitor Material Management
- Improve Competitiveness of the University



## Social

- Improve Functionality & Quality
- Stimulate Innovation
- Create Conducive campus Environment
- Improve Relationship

# GreenLeaf

UTM introduced the Green Leaf annual sustainability audit in 2018. The Green Leaf was created to assist the management of the Universiti Teknologi Malaysia (UTM) campus, in efforts to strengthen initiatives toward sustainability as a whole. At the same time, this assessment will be used as a single sustainability database on the UTM campus to facilitate the existing sustainability management system. This is because there are currently various sustainability assessment systems that have been used to measure the level of sustainability in the UTM campus, which causes duplication and repetition of sustainability data. Duplication and repetition of this data results in the effectiveness of the evaluation system not being achieved.

After successfully implementing the 2018 Sustainability Assessment, the UTM Campus Sustainability Office has submitted an application to create a Sustainability Award in Citra Karisma 2020 to encourage participation and recognize the efforts of each responsibility centre (PTJ) in terms of sustainability. The Sustainability Award is divided into four categories, namely School/Faculty; Office/Department; HiCoe/CoE/Research Institute; and Residential College. The minimum score for winners and awards is 3 Green Leaf (51-74%) of the 54 PTJ that have been invited to participate in the 2020 Sustainability Assessment, covering schools/faculties; office/department; HiCoe/CoE/Research Institutes and residential colleges, a total of 39 PTJs returned the filled-up evaluation forms, compared to only 27 PTJs in 2019. The overall response rate was 74%.





# GreenLeaf Results 2020 and 2021

5 GreenLeaf



**Department of the Deputy Vice-Chancellor  
(Research and Innovation)**

2020

**Kolej Perdana**

2020

**Faculty of Built Environment and  
Surveying ( FABU)**

2021

# Community River Trail (DSKom2022)

The DSKom2022 program was inaugurated by the Mayor of Iskandar Puteri City Council, the Honorable Dato' Haji Mohd Haffiz Bin Haji. Ahmed. Also participating in the opening ceremony was YBhg. Prof. Datuk Ir. Ts. Dr. Ahmad Fauzi Bin Ismail, Vice-Chancellor, Universiti Teknologi Malaysia (UTM), and the Honorable Datuk Haji Pandak bin Ahmad, Assemblyman of Kota Iskandar, State of Johor together with senior officers of the University. This program is conducted in conjunction with World Rivers Day 2022 which is celebrated simultaneously around the world. Among the activities carried out are joint efforts to clean the village including land and water areas, basic health check-ups and free dental check-ups from the UTM Health Center. Participants are divided into two groups during the gotong royong which involves the use of boats to collect garbage along the Melayu River.

The highlight of the program is an exhibition and briefing involving six Modul Prihatin Denai Sungai Malaysia. All modules are written by UTM researchers, which were specially developed in conjunction with this river trail program. Among the module titles are 'Asas Teknologi Simenfero', 'Pengukuran Kualiti Air bersama Komuniti Sekitar Denai Sungai', 'Tanah Bencah Terapung bagi Pemuliharaan Air Sungai', 'Teknik Tanaman dan Pengkomposan Lestari', 'Kepelbagaian Mikroalga sebagai Bioindikator Kualiti Air Sungai', and 'Biodiversiti Riparian Sungai'.





# H-OTEC

## Malaysia Model First Operational Plant In The World



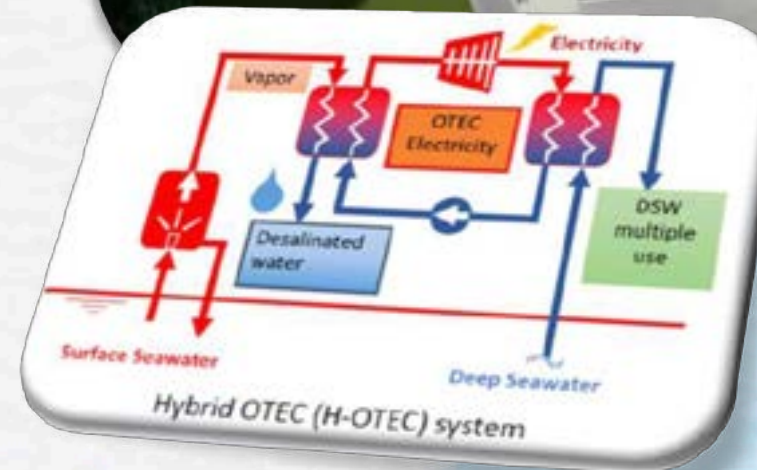
What is H-OTEC?

A new system combining OTEC and desalination to promote commercialization.

The H-OTEC Malaysia model project will build a double-storey flexible research building of about 336 square meters ( $m^2$ ) with the required land area of  $2173m^2$ . The proposed design for the initial phase should assume that future expansion could result in building a total of  $1000 m^2$  on this site. The project will be designed to support collaborative research teams and with infrastructure that can be adapted to accommodate rapidly changing research and its equipment needs. The proposed world-class facilities will attract high calibre researchers, grant and foundation funding and educate the best students. Research discoveries in the new building will help create a new generation of start-ups, and high tech commercial spin-offs that are important to a diverse and robust future state economy.

Generating electric power by exchanging heat from Surface Seawater. The electricity produced by OTEC has a fixed cost. It can produce up to 2 million liters per day of drinkable water per MW of power output. It is not susceptible to the volatility of costs that affects other energy sources (coal, natural gas and petroleum). Has less environmental impact. Promotes larger and various commercial experiments to be carried out in the future.

SCAN ME !





# The Sandbox

## UTM Micro-mobility initiative in UTM

UTM Kuala Lumpur hosted the launch of the Sandbox of Sustainable Micromobility Integration and Innovation at UTMKL and Datuk Keramat on 16 December 2022. The arrival of the Mayor of Kuala Lumpur, **Datuk Seri Haji Mahadi Bin Che Ngah** was warmly welcomed by the **Deputy Vice Chancellor (Development), Professor Ts. Dr. Mohd Hamdan Bin Haji Ahmad**. The programme was also attended by **TPr. Norliza Hashim**, the CEO of URBANICE Malaysia Sdn Bhd.

The Sandbox of Sustainable Micromobility and Innovation at UTMKL and Datuk Keramat is a collaboration between UTM Kuala Lumpur, Dewan Bandar Kuala Lumpur (DBKL), and URBANICE Malaysia to explore sustainable mobility innovations towards a low carbon city. Through the Sandbox, innovations such as micromobility modes of transport will be tested and observed in UTM Kuala Lumpur and the Datuk Keramat area.

Through the Sandbox, UTM Kuala Lumpur aims to explore alternative modes of transport to solve the last-mile connectivity issue of the campus. UTMKL aims to encourage the campus community to opt for alternative transportation modes, thus reducing the reliance on private vehicles such as cars and motorbikes.



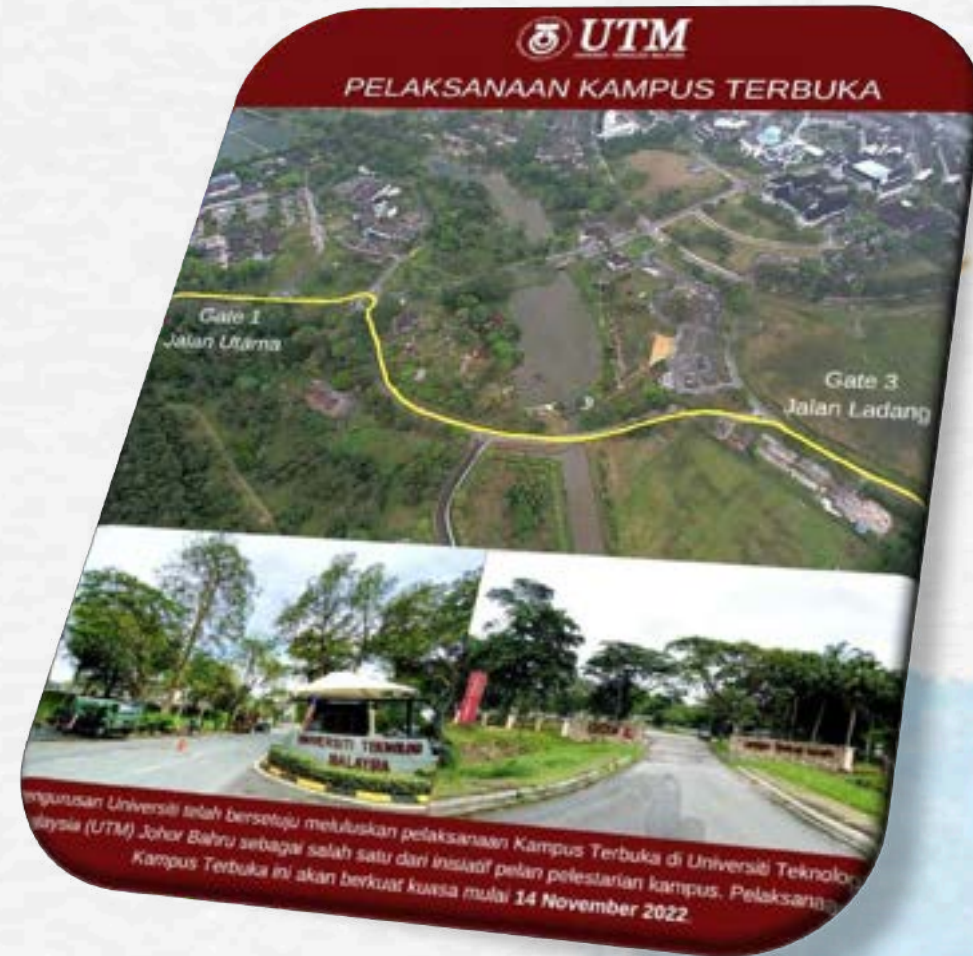


# UTM Open Campus

## UTM Johor Bahru

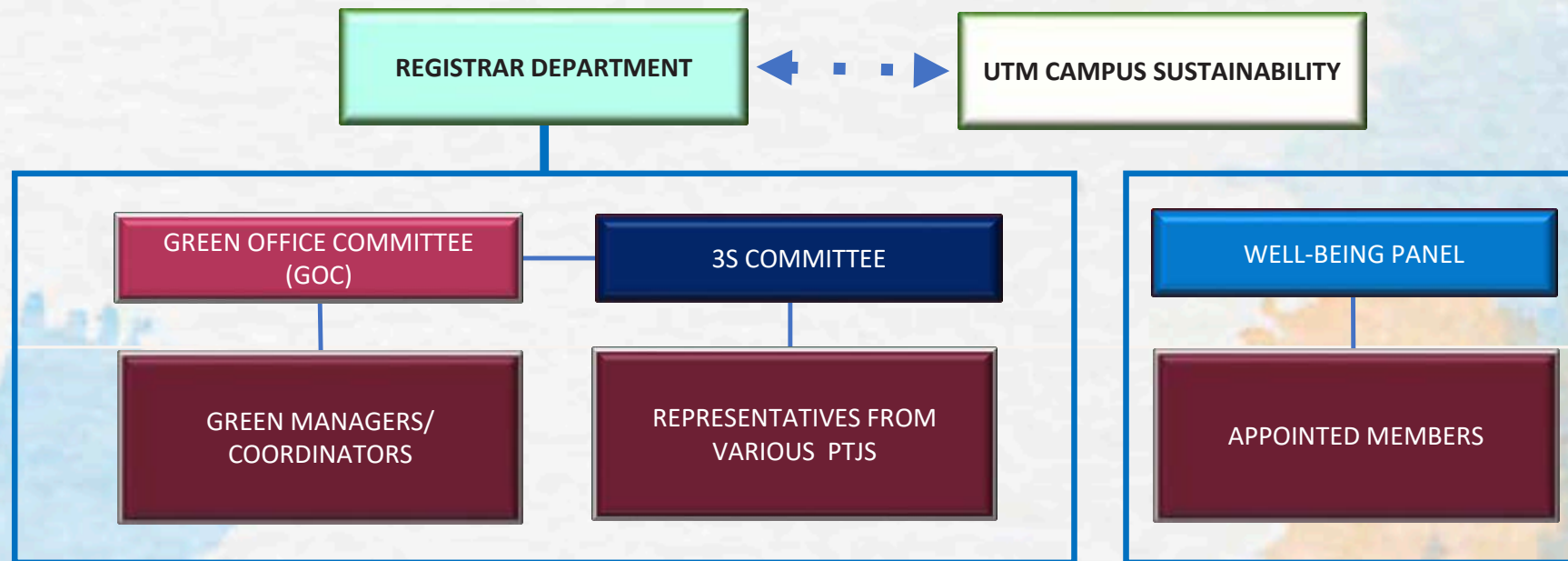
The University Management has agreed to approve the implementation of the Open Campus at Universiti Teknologi Malaysia (UTM) Johor Bahru as one of the initiatives of the campus sustainability plan. The implementation of this Open Campus has been effective from 14 November 2022. The opening of the UTM Johor Bahru Open Campus area has involved the area around Jalan Universiti, Lengkok Universiti, part of Jalan Stadium, part of Jalan Kolam Air and Jalan Ladang.

This open campus area will provide a campus experience to the surrounding community with several components currently in the open campus master plan, such as Alumni Hub, Visitor Centre, EndowMart, Bowling Alley, Equine Park, Multi-Purpose Hall and business activities area. In addition, Tasik Ilmu, Dataran UTM, and the football field can also be enjoyed as a recreation area by the public within this open campus area.



# Green Office and Well-Being

3S (Sihat, Selamat, Sejahtera = Health, Well-being, Safety & Security)

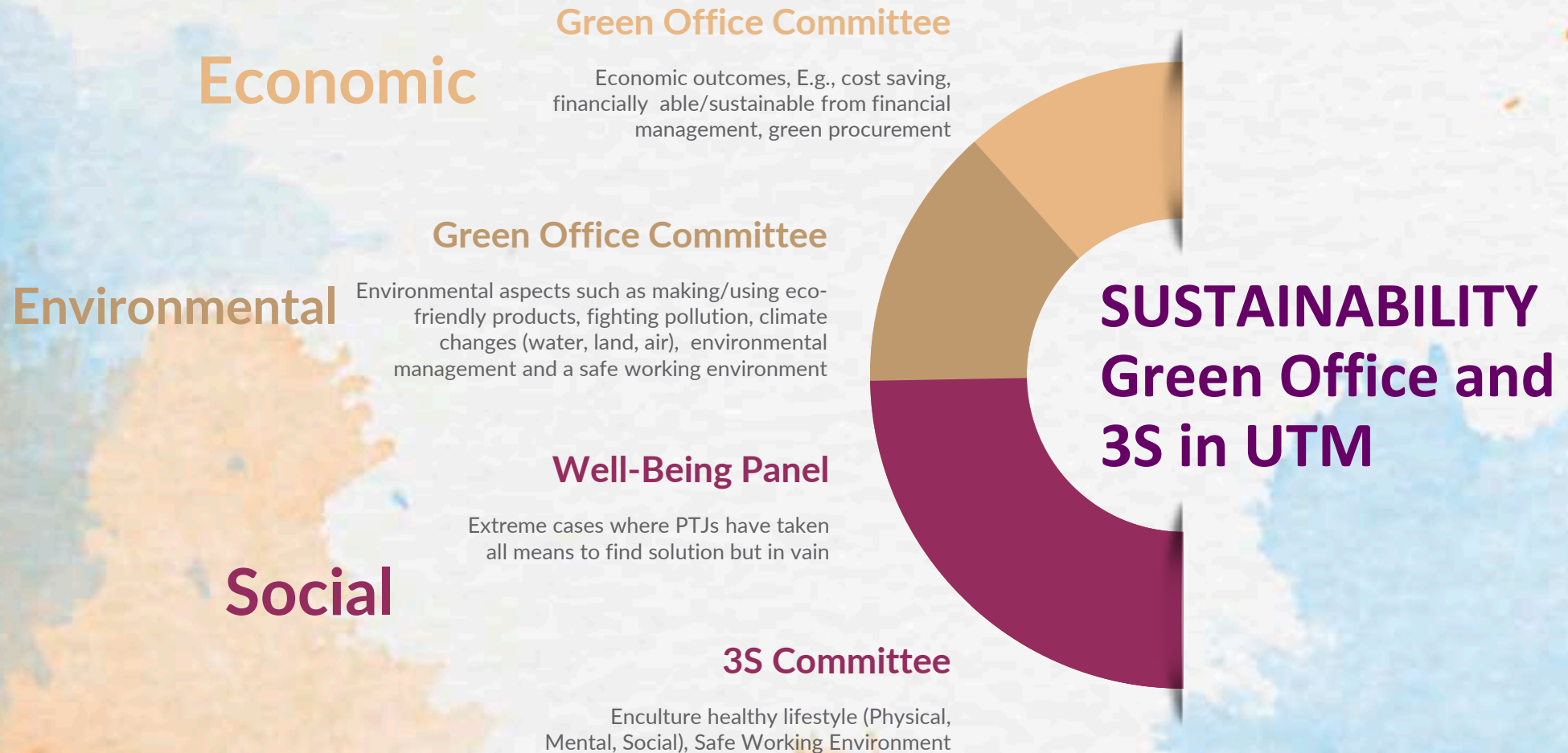


*Maintaining a healthy environment is essential for helping people live longer and for enhancing their quality of life*



# Green Office and Well-Being

3S (Sihat, Selamat, Sejahtera = Health, Well-being, Safety and Security)



# Respondent Well-Being Index (WBI)

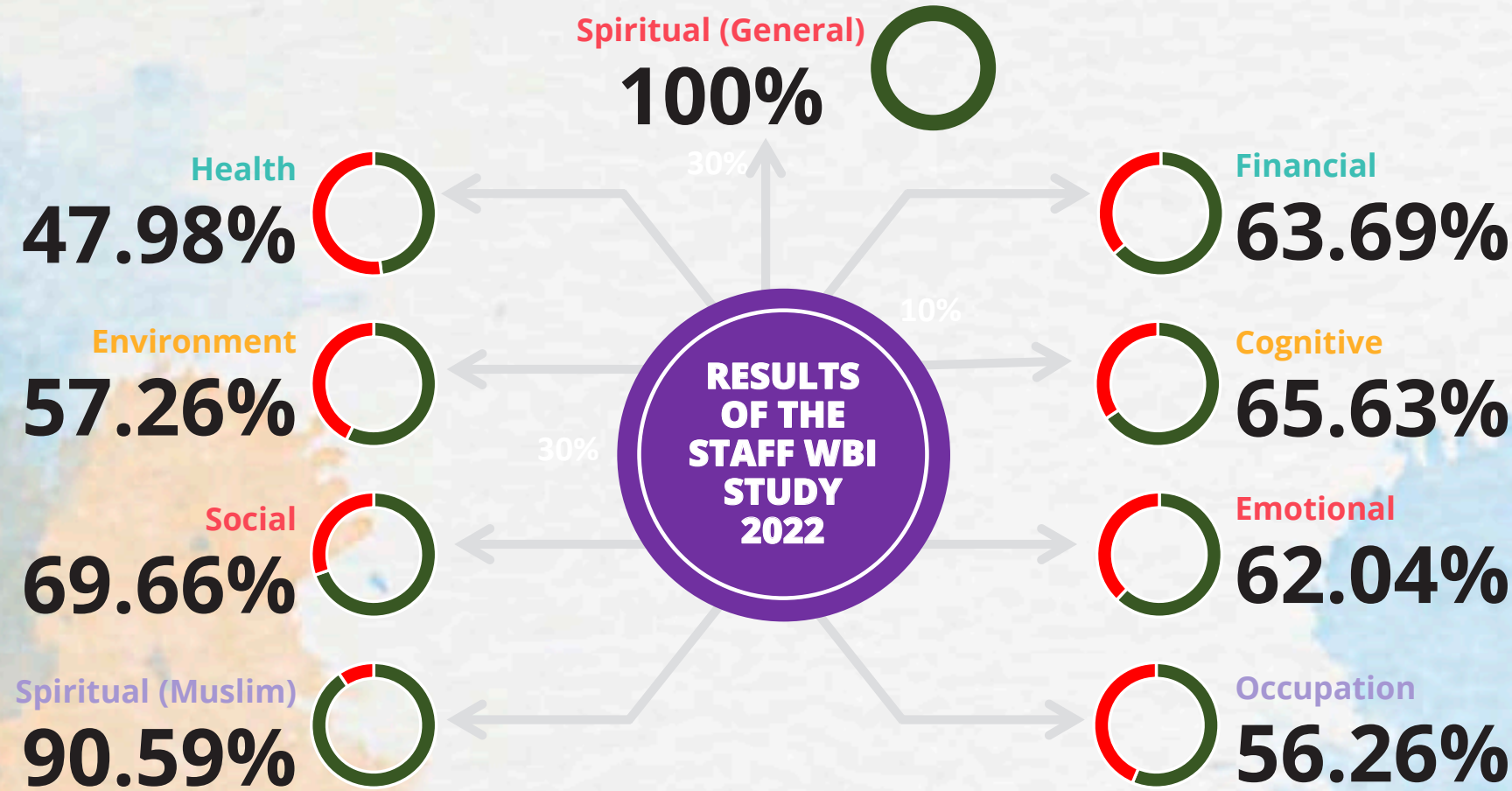
- The Registrar's Department has conducted a Staff Wellbeing Questionnaire for sixteen (16) days from 3 to 18 July 2022.
- A total of 1217 respondents answered the Staff Well-Being Survey which is only 25% of the entire UTM staff
- The distribution of information about respondents to this questionnaire can be formulated according to demographic factors





# Respondent Well-Being Index

(WBI)



# Digital Support

Staff and Student



UTM's *Bring Your Own Device* (BYOD) assistance is a financial aid to staff to purchase tools listed as BYOD Aids at some cost or total cost of the equipment incurred by the university. This assistance is an initiative created to support the needs of the digital environment and work style.



A total of 45 students from Universiti Teknologi Malaysia (UTM) comprising the B40 group received donations in the form of laptops from the Majlis Agama Islam Negeri Johor (MAIJ) (20), Yayasan Tunku Abdul Rahman (YTAR) (20) and Yayasan Sukarelawan Siswa (5) during 2021 and 2022.

Academic Staff 203



203



Non Academic Staff

703

Majlis Agama  
Islam Negeri  
Johor (MAIJ)



Yayasan Tunku  
Abdul Rahman  
(YTAR)



Yayasan  
Sukarelawan  
Siswa







Image: UTM Office of Corporate Affairs



5

Way Forward



# ESG – Part I

## Introduction



### ENVIRONMENT

- Climate Change Strategy
- Biodiversity
- Water Efficiency
- Carbon Intensity
- Environmental Management System



### SOCIAL

- Equal Opportunities
- Freedom of Association
- Health & Safety
- Human Rights
- Child Labour
- Customer & Product Responsibility



### GOVERNANCE

- Business Ethics
- Compliance
- Board Independence
- Executive Compensation
- Shareholder Democracy

UTM is very committed to implementing a sustainability agenda on campus that outlines a vision for sustainable development based on international human rights standards, placing equality and non-discrimination as the centre of its efforts and includes not only economic and social rights but also civil, political, and cultural rights, and for development. As in many other education sectors, the top leaders of a university realize that their primary commitment is to be part of a purpose-driven organization that does the right thing. A well-planned environmental, social and governance (ESG) strategy, accompanied by a parallel action framework and transparent communication about the impact of these actions, can help an institution attract and retain students, faculty and staff while improving community engagement comprehensively.

# South East Asia Award Category

Recipient of The Most Environmentally Sustainable Institutions 2022



The Director of Corporate Affairs Section, Assoc. Prof. Ts. Dr. Dayana Farzeeha Ali representing UTM during the award giving ceremony



# enVision 2022 - 2025

## UTM's Strategic Framework: Strategic Priorities 6 (SP 6)

To provide a sustainable campus experience to staff, students and surrounding communities.

## Strategic Objective 6

to recognize the need for sustainable campus-life experiences which include, but not limited to, the welfare and well-being of our human resources to ensure all are feeling good, functioning well, and managing to cope with everyday stresses, working productively and fruitfully, and can make contributions to the University.

## High Impact Results

## Well-Being Index

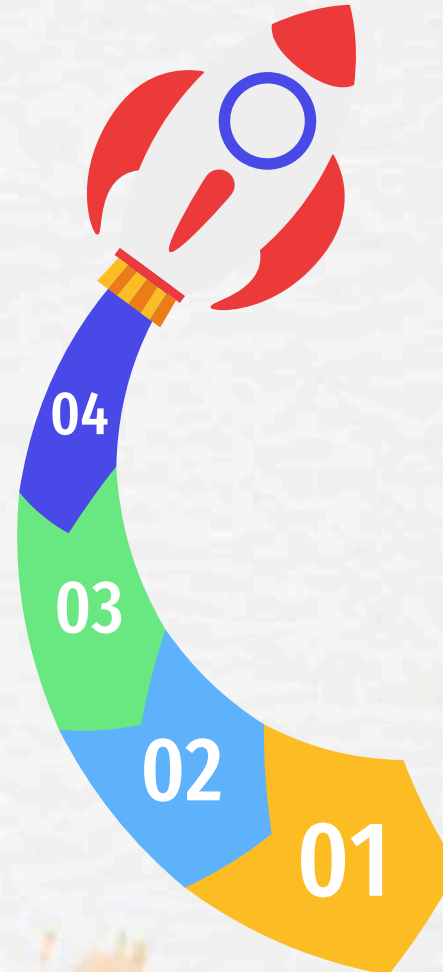
>85%  
For 2022

## Registrar's Strategy Map: Strategic Priorities 6 (SP 6)

To provide a sustainable campus experience to staff, students and surrounding communities & SO6 Prospering Staff Experience Through Conducive Working Environment and Staff Welfare.

# Where Do We Go From Here?

Recommendations to UTM with regard to its sustainability agenda are presented throughout this report.



## IF

If UTM intends to enhance its contribution towards the global sustainability agenda, where should it concentrate its future efforts?

## WHAT

What are the success stories on sustainability that UTM should share with its community and external partners?

## WHAT

What are UTM's strengths and areas of improvement with regard to sustainability?

## WHAT

What are the underlying principles and goals behind UTM's sustainability agenda?





*Image: UTM Office of Corporate Affairs*

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# OUR TEAM



Zainal

Sabrina

Kiflee

Shamsul

Fadhil

Shazwin

Nizam

Huda

Jani





# SUSTAINABILITY REPORT

# 20 22

Localisation • Alignment • Implementation



**UTM**  
UNIVERSITI TEKNOLOGI MALAYSIA

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