

UM Living Labs Projects 2015 - 2021 (60 Projects)

NO.	PROJECT CODE	PROJECT NAME	PROJECT LEADER (Name and title as per the year awarded)	FACULTY
1.	LL001-15SUS	UM Living Lab Administration	Chairperson of UMSLLS (Prof. Dr. Sumiani Yusoff)	IOES
2.	LL002-15SUS	Integrated Water Management: UM As a Living Lab (Water Warriors)	AP Dr. Zeeda Fatimah Mohamad	Science
3.	LL003-15SUS	Feasibility Study on Use of Rainwater	AP Dr. Ghufuran Redzwan	Science
4.	LL004-15SUS	UM Zero Waste Campaign: Integrated and Sustainable Waste Management Model Development in Universiti Malaya Campus	Prof. Dr. Sumiani Yusoff	IOES
5.	LL005-15SUS	The Rimba Project	Dr. Sugumaran A/L Manickam	Science
6.	LL006-15SUS	Developing A Strategic Facility Planning Framework for Eco-Resilience Homes	Prof. Dr. Sr Azlan Shah Ali	Built Environment
7.	LL007-15SUS	Design of Homes for Active Ageing	Dr. Muhammad Azzam Ismail	Built Environment
8.	LL008-15SUS	Developing A Strategic Framework and Guideline for Eco-Resilience Neighbourhood for Active Ageing	Dr. Nikmatul Adha Nordin	Built Environment
9.	LL009-15SUS	Homes for Active Ageing: Market and Housing Aspect	AP Dr. Sr Noor Rosly Hanif	Built Environment
10.	LL010-15SUS	Smart Energy Utilization	Prof. Dr. Ir Nasrudin Abd Rahim	UMPEDAC
11.	LL011-15SUS	Building Energy Management System with Internet Of Things And Evolution Computing	Dr. Liew Chee Sun	FCSIT

12.	LL012-15SUS	Analysis On Human Behavior Pattern in An Office Building	Dr. Unaizah Hanum Obaidellah	FCSIT
13.	LL013-16SUS	Smart Management of Electrical Appliances and Energy Saving using Internet of Things	Dr. Mohammad Hossein Anisi	FCSIT
14.	LL014-16SUS	Smart Modular Electrical Energy Monitoring and Management System	Dr. Mohd Yazed bin Ahmad	Engineering
15.	LL015-16SUS	Energy Conservation Culture in Universiti Malaya Campus	Dr. Adi Ainurzaman Jamaludin	Science
16.	LL016-16SUS	Smart-E (Smart Energy Monitoring & Oplitimization for Pre-existing Campus Buildings)	Dr. Noor Azizi Mardi	Engineering
17.	LL017-16SUS	Zero Carbon Building Assessment for UM Chancellory Building and Other UM Office Buildings	Dr. Ali Mohammed Alashwal	Built Environment
18.	LL018-16SUS	The UM Cancer Farm Project (A Lifestyle Lab)	AP Dr. Loh Siew Yim	Medicine
19.	LL019-16SUS	The Design and Investigation of a Novel Ecological Air Cleaning and Cooling System Using the Concept of A Living Green Wall	AP Dr. Chong Wen Tong	Engineering
20.	LL020-16SUS	A Virtual Reality Application on Plants in Universiti Malaya	AP Dr. Sarinder Kaur	Science
21.	LL021-16SUS	Carbon Abatement Module for Universiti Malaya Eco-campus: Addressing Urban Heat Island and Climate Change Impact	Dr. Noor Suzaini Mohd Zaid	Built Environment
22.	LL022-16SUS	Essence of Green Roofs/Walls: UM Campus as an Experimental and Computational Living Lab towards Enhancing the Outdoor Thermal Comfort Conditions	AP Dr. Norhaslina Hassan	Arts and Social Sciences
23.	LL023-16SUS	Universiti Malaya Ecological and Hydrological Data Warehouse Prototype System	Dr. Sorraya Malek	Science
24.	LL024-16SUS	Sustainable Transport System in Universiti Malaya Campus: Study on Improve the Feeder Bus Service and Promote Non-motorised Transport Mode in Campus	Dr. Yuen Choon Wah	Engineering

25.	LL025-16SUS	Real-time and Automated Traffic Data Inventory and Monitoring System (TDIM)	Dr. Ahmad Saifizul Abdullah	Engineering
26.	LL026-16SUS	Working towards A Sustainable Means of Campus Transportation	Dr. Onn Chiu Chuen	Engineering
27.	LL027-16SUS	Construction Waste Recycling Center for Sustainable Drainage Construction	Dr. Yap Soon Poh	Engineering
28.	LL028-16SUS	UM Zero Food Waste Campaign	AP Dr. Norbani Che Ha	Business and Economics
29.	LL029-16SUS	Agro-hero: Promoting Green Practices to Communities for Sustainable Agriculture	Dr. Muhamad Shakirin Mispan	Science
30.	LL030-16SUS	Safe Disposal of Unused Medications - Working towards a Green Pharmacy in the Universiti Malaya Medical Centre	Dr. Lee Hong Gee	Medicine
31.	LL031-16SUS	Transforming the Role of Surau APIUM for Campus Sustainability Through 'Imarah Green Project	Dr. Asmawati Muhamad	Academy of Islamic Studies (APIUM)
32.	LL032-16SUS	Enhancing The Visibility of UM Regional Centre of Expertise (RCE) Central Semenanjung through Partnership with Bukit Fraser's Community and Authority	Prof. Dr. Norzulaani Khalid	Science
33.	LL033-17SUS	Integrating Green into The Universiti Malaya's Procurement Process: A Move Forward	Dr. Suhana Mohezar Ali	Business and Economics
34.	LL034-18SUS	Smart Waste Management System Using Internet-of-Things	Dr. Ismail Ahmedy	FCSIT
35.	LL035-18SUS	Managing Kitchen Waste Using Black Soldier Fly (BSF): An Alternative Approach Towards Zero Waste in Campus	Dr. Muhamad Shakirin Mispan	Science
36.	LL036-18SUS	Healthy Soil for a Healthy Environment; Reducing Dependency on Chemical Fertilizer Consumption in Universiti Malaya Using Organic Materials	Dr. Rosazlin Abdullah	Science
37.	LL037-18SUS	Carbon Storage Mapping Initiative Through Real Time GPS Tracking and IOT Monitoring	Dr. Khairunnisa Hasikin	Engineering

38.	LL038-18SUS	Evaluating walkability index of campus communities to promote sustainable transportation in Universiti Malaya	AP Dr. Nasrin Agha Mohammadi	Medicine
39.	LL039-18SUS	Walking as a green transportation mode in Universiti Malaya Campus	AP Dr. Rosilawati Zainol	Built Environment
40.	LL040-18SUS	Decentralization of laboratory exercise via remote application: A state-of-the-art approach toward efficient educational facility resource and energy management in academic institutions	Dr. Mohd Nashrul Mohd Zubir	Engineering
41.	LL041-18SUS	The Faculty Sustainability Report Card: Documenting Faculty Sustainability Initiatives Towards UM Eco-Campus	Dr. Norizah Hassan	Languages and Linguistics
42.	LL042-18SUS	Embedding Shades of Green in UM's Reporting Practices	AP Dr. Zarina Zakaria	Business and Economics
43.	LL043-18SUS	Water Monitoring via Internet of Things	AP Dr. Mohd Yamani Idna Idris	FCSIT
44.	LL044-18SUS	EcoSlope: Slope eco-engineering technique towards sustainable and green landscape	Prof. Dr. Normaniza Osman	Science
45.	LL045-18SUS	Recycled Plastic Aggregate as Replacement for Conventional Aggregates in Concrete	AP Dr. Ubagaram Johnson Alengaram	Engineering
46.	LL046-2019	Development of Renewable Energy Harvesting System from Water Flow in Universiti Malaya	AP Ir Dr. Hazlee Azil Illias	Engineering
47.	LL047-2019	Study on Electrical Distribution System in UM for Power Loss Reduction and Potential Cost Savings	Dr. Nurulafiqah Nadzirah Mansor	Engineering
48.	LL048-2019	IoT Monitoring and Management System on Campus Sustainable Transportation	AP Ts. Dr. Rafidah Md Noor	FCSIT
49.	LL049-2019	UM Green Procurement for Food Premises	AP Dr. Nor Liyana Shuib	FCSIT
50.	LL050-2021	Sustainable Forest Development for Section Greenzone [Pt26 Hsd 98022] Universiti Malaya	Dr. Mohd Faizzi Mohd Yusof	PASUM
51.	LL051-2021	The RIMBA Project 2.0: Climate Change Mitigation Through Carbon Sequestration	Dr. Sarah Abdul Razak	Science

52.	LL052-2021	Fabrication of Carboxymethyl Cellulose (Cmc) Hybrid Scaffolds from Office Paper Waste (Opw) for Tissue Engineering Applications	Dr. Farina Muhamad	Engineering
53.	LL053-2021	Flexible Glass Solar Photovoltaic Thermal Cooling System With Phase Change Material	AP Dr. Jeyraj A/L Selvaraj	Engineering
54.	LL054-2021	IoT Based Smart Solar Powered Street Lighting System	Dr. Tey Kok Soon	FCSIT
55.	LL055-2021	UM Smart Vehicle Management Through License Plate Recognition	Dr. Muneer Ahmad	FCSIT
56.	LL056-2021	Green Procurement Process Between Science & Non-Science Based Faculty in UM: Development, Evaluation & Comparison Study	Dr. Eliza Hafiz	Sports and Exercise Sciences
57.	LL057-2021	UM Green Cafeteria Model: Green Procurement & Sustainable Health Practices	Dr. Muhammad Mehedi Masud	Business and Economics
58.	LL058-2021	Strategic Air Quality Measurement for Sustainable Campus – UM Living Lab Approach	Dr. Mohd Firoz Khan	Science
59.	LL059-2021	i-advisory Decision-making And Monitoring System In Green E-procurement For Cleaning Services	Dr. Nazean Jomhari	FCSIT
60.	LL060-2021	Mywork@UM : Wellness and Occupational Resilience Kit at Universiti Malaya	Dr. ZuraidaAhmad Sabki	Medicine

UM Carbon Neutrality Acceleration Living Labs Leaders:

Cycle 1 2022/2023

- LL2022CN001 - [Dr. Muhammad Shakeel Ahmad](#) (HICOE UMPEDAC) **CONVERSION OF COOLING SYSTEM OF UM SHUTTLE TO SOLAR PLUS BATTERY WITH PLUG-IN CHARGING**
- LL2022CN002 - [Ir. Dr. Khairunnisa Hasikin](#) (Faculty of Engineering UM) **ARTIFICIAL INTELLIGENCE (AI) ASSISTED GREENHOUSE GASES EMISSION MONITORING TOWARDS ACHIEVING CARBON NEUTRAL CAMPUS**
- LL2022CN003 - [Dr. Fong Chng Saun](#) (Institute of Advanced Studies - IAS UM) **DEVELOPMENT OF A CENTRALIZED DIGITAL TOOL FOR LOCAL GREENHOUSE GAS (GHG) EMISSIONS**

UM Circular Economy Living Labs Leaders:

Cycle 1 2022/2023

- LL2022CE001 - [Assoc. Prof. Dr. Noor Zalina Mahmood](#) (Faculty of Science UM) **THE RELEVANCE OF A SUSTAINABLE FOOD WASTE SEPARATION AT SOURCE SYSTEM AT UNIVERSITI MALAYA CAFETERIA FOR CIRCULAR ECONOMY INITIATIVE IN CAMPUS**
- LL2022CE002 - [Dr. Onn Chiu Chuen](#) (Faculty of Engineering UM) **SUSTAINABLE SOLID WASTE MANAGEMENT MODEL IN UNIVERSITI MALAYA CAMPUS: ZERO WASTE CAMPAIGN 2.0**
- LL2022CE003 - [Dr. Zati Hakim Azizul Hasan](#) (Faculty of Computer Science and Information Technology UM) **GOGREEN! AN INTEGRATED WASTE MANAGEMENT SYSTEM TOWARDS REDUCE. REUSE, RECYCLE (3R) COMMUNITY ADOPTION**

Congratulations and All the Best
UM Living Labs @ UMSDC Grants Recipients
Cycle 2022/2023
(January - December 2023)

**UM CIRCULAR ECONOMY
LIVING LABS GRANT**



**UM CARBON NEUTRALITY
ACCELERATION
LIVING LABS GRANT**



ASSOC. PROF. DR. NOOR ZALINA MAHMOOD
FACULTY OF SCIENCE UM

LL2022-CE001

The relevance of a Sustainable Food Waste Separation at Source System at Universiti Malaya Cafeteria for Circular Economy Initiative in Campus



DR. MUHAMMAD SHAREEL AHMAD
HICOE - UMPEDAC

LL2022-CN001

Conversion of Cooling System of UM Shuttle to Solar Plus Battery with Plug-in Charging



DR. ONN CHIU CHUEN
FACULTY OF ENGINEERING UM

LL2022-CE002

Sustainable Solid Waste Management Model in Universiti Malaya Campus: Zero Waste Campaign 2.0



IR. DR. KHAIRUNNISA HASIKIN
FACULTY OF ENGINEERING UM

LL2022-CN002

Artificial Intelligence (AI) Assisted Greenhouse Gases Emission Monitoring towards Achieving Carbon Neutral Campus



DR. ZATI HAKIM AZIZUL HASAN
FACULTY OF COMPUTER SCIENCE &
INFORMATION TECHNOLOGY UM

LL2022-CE003

GoGreen! An Integrated Recyclable Waste Management System towards Reduce, Reuse, Recycle (3R) Community Adoption



DR. FONG CHNG SAUN
INSTITUTE OF ADVANCED STUDIES (IAS)

LL2022-CN003

Development of a Centralized Digital Tool for Local Greenhouse Gas (GHG) Emissions

Best Wishes:

UM SUSTAINABILITY AND DEVELOPMENT CENTRE (UM SDC)
PUSAT PEMBANGUNAN KELESTARIAN UNIVERSITI MALAYA

EcoCampus@UM . Rimba Ilmu . Makerspace@UM

@um.sustainability

@UniMalayaSDC

UM Sustainability

<https://sustainability.um.edu.my>



UM EcoCampus Living Labs Leaders:

Cycle 2023/2024

NO.	PROJECT CODE	PROJECT NAME	PROJECT LEADER (Name and title as per the year awarded)	FACULTY
1	LL2023ECO001	The Rimba Project 2.0: Ecosystem services of urban forest towards climate change mitigation	<u>Dr. Sarah Abdul Razak</u>	Faculty of Science UM
2	LL2023ECO002	Smart and Sustainability Engineering Urban Farm for Food Security	<u>Dr. Fathiah Mohamed Zuki</u>	Faculty of Engineering UM
3	LL2023ECO003	Recycling of Polyethylene Terephthalate Wastes for Prosthetic Applications	<u>Assoc. Prof. Ir. Dr. Nasrul Anuar Abd Razak</u>	Faculty of Engineering UM
4	LL2023ECO004	Electronic Waste Management: A Cost Effective Extraction of Precious Metals and Possible Rare Earth Elements	<u>Dr. Shahid Bashir</u>	HICOE-UMPEDAC
5	LL2023ECO005	Solar-Powered Smart Monitoring System for Occupancy and Energy Use in Lecture Rooms	<u>Assoc. Prof. Ir. Dr. Hazlee Azil bin Illias</u>	Faculty of Engineering UM
6	LL2023ECO006	Reduce the Electricity Usage by Adopting the Cooling-based Indoor Houseplants	<u>Assoc. Prof. Dr. Azzuliani Supangat</u>	Faculty of Science UM
7	LL2023ECO007	Develop a Sustainable Transport System in Universiti Malaya Campus	<u>Ir. Ts. Dr. Yuen Choon Wah</u>	Faculty of Engineering UM

8	LL2023ECO008	Water Quality Prediction of UM Lake using Machine Learning	<u>Dr. Nazean Jomhari</u>	Faculty of Computer Science & Information Technology UM
9	LL2023ECO009	Rainwater Garden Pilot Project in University Malaya Campus as an Onsite Building Stormwater Management Strategy	<u>Madam Ati Rosemary Mohd Ariffin</u>	Faculty of Built Environment UM
10	LL2023ECO010	Piloting an Action-oriented Approach towards Operationalizing Responsible Research and Innovation towards Urban Sustainability for University FYP Projects	<u>Dr. Fung Hon Ngen</u>	Faculty of Science UM
11	LL2023CO011	Enhancing Food Waste Management Practices Among University Students: An Intervention Program	<u>Dr. Muhammad Mehedi Masud</u>	Faculty of Business and Economics UM
12	LL2023CO012	Reducing the carbon footprint in dentistry: easy and sustainable	<u>Dr. Nor Malina Manan</u>	Faculty of Dentistry UM
13	LL2023CO013	Developing Effective Social Media Content on Promoting Zero-Waste Practices and Reducing Single-Use Plastic Consumption in the Universiti Malaya Community	<u>Dr. Nurulaini Abu Shamsi</u>	Faculty of Science UM

14	LL2023CO014	Climate Superhero: Campus-led Climate Change Mitigation Campaign (CCMC) through Gamification	<u>Dr. Nor Aishah Abdullah</u>	Faculty of Science UM
15	LL2023CO015	Unlocking the Keys behind Greater Adoption and Adaptation of E-sports Exergaming as a Low Carbon Sport and Exercise Alternative	<u>Dr. Maziah Mat Rosly</u>	Faculty of Medicine UM
16	LL2023CO016	Motivating Sustainable Active Transport Behaviour among University Community in an EcoCampus	<u>Dr. Lim Yin Cheng</u>	Faculty of Medicine UM

Congratulations and All the Best
UM Living Labs @ UMSDC Grants Recipients
Cycle 2023/2024
(September 2023 - September 2024)

**UM ECOCAMPUS
LIVING LABS GRANT**



DR. SARAH ABDUL RAZAK
FACULTY OF SCIENCE UM

LL2023ECO001

The Rimba Project 2.0: Ecosystem Services of Urban Forest towards Climate Change Mitigation



**DR. SHAHID BASHIR
HICOE - UMPEDAC**

LL2023ECO004

Electronic Waste Management: A Cost Effective Extraction of Precious Metals and Possible Rare Earth Elements



DR. FATHIAH MOHAMED ZUKI
FACULTY OF ENGINEERING UM

LL2023ECO002

Smart and Sustainability Engineering Urban Farm for Food Security



ASSOC. PROF. IR. DR. HAZLEE AZIL ILLIAS
FACULTY OF ENGINEERING UM

LL2023ECO005

Solar-Powered Smart Monitoring System for Occupancy and Energy Use in Lecture Rooms



IR. DR. NASRUL ANUAR ABD RAZAK
FACULTY OF ENGINEERING UM

LL2023ECO003

Recycling of Polyethylene Terephthalate Wastes for Prosthetic Application

Best Wishes:
UM SUSTAINABILITY AND DEVELOPMENT CENTRE (UMSDC)
PUSAT PEMBANGUNAN KELESTARIAN UNIVERSITI MALAYA
EcoCampus@UM . Rimba Ilmu . Makerspace@UM

@um.sustainability

@UniMalayaSDC

UM Sustainability

<https://sustainability.um.edu.my>



Congratulations and All the Best
UM Living Labs @ UMSDC Grants Recipients
Cycle 2023/2024
(September 2023 - September 2024)

**UM ECOCAMPUS
LIVING LABS GRANT**



ASSOC. PROF. DR. AZZULIANI SUPANGAT
FACULTY OF SCIENCE UM

LL2023ECO006

Reduce the Electricity Usage by Adopting the Cooling-based Indoor Houseplants



PUAN ATI ROSEMARY MOHD ARIFFIN
FACULTY OF BUILT ENVIRONMENT UM

LL2023ECO009

Rainwater Garden Pilot Project in University Malaysia Campus as an Onsite Building Stormwater Management Strategy



IR. TS. DR. YUEN CHOON WAH
FACULTY OF ENGINEERING UM

LL2023ECO007

Develop a Sustainable Transport System in Universiti Malaysia Campus



DR. FUNG HON NGEN
FACULTY OF SCIENCE UM

LL2023ECO010

Piloting an Action-oriented Approach towards Operationalizing Responsible Research and Innovation towards Urban Sustainability for University FYP Projects



DR. NAZEAN JOMHARI
FACULTY OF COMPUTER SCIENCE AND
INFORMATION TECHNOLOGY UM

LL2023ECO008

Water Quality Prediction of UM Lake using Machine Learning

Best Wishes:
UM SUSTAINABILITY AND DEVELOPMENT CENTRE (UMSDC)
PUSAT PEMBANGUNAN KELESTARIAN UNIVERSITI MALAYA
EcoCampus@UM . Rimba Ilmu . Makerspace@UM

@um.sustainability

@UniMalayaSDC

UM Sustainability

<https://sustainability.um.edu.my>



Congratulations and All the Best
UM Living Labs @ UMSDC Grants Recipients
Cycle 2023/2024
(September 2023 - September 2024)

**UM ECOCAMPUS
LIVING LABS GRANT**



DR. MUHAMMAD MEHEDI MASUD
FACULTY OF BUSINESS AND ECONOMICS UM

LL2023ECO011

Enhancing Food Waste Management Practices Among University Students: An Intervention Program



DR. NOR AISHAH ABDULLAH
FACULTY OF SCIENCE UM

LL2023ECO014

Climate Superhero: Campus-led Climate Change Mitigation Campaign (CCMC) through Gamification



DR. NOR MALINA MANAN
FACULTY OF DENTISTRY UM

LL2023ECO012

Reducing the Carbon Footprint in Dentistry: Easy and Sustainable



DR. MAZIAH MAT ROSLY
FACULTY OF MEDICINE UM

LL2023ECO015

Unlocking the keys behind greater adoption and adaptation of e-sports exergaming as a low carbon sport and exercise alternative



DR. NURULAINI ABU SHAMSI
FACULTY OF SCIENCE UM

LL2023ECO013

Developing Effective Social Media Content on promoting Zero-Waste Practices and Reducing Single-use Plastic Consumption in the University Malaya Community



DR. LIM YIN CHENG
FACULTY OF MEDICINE UM

LL2023ECO016

Motivating sustainable active transport behaviour among university community in an ecocampus

Best Wishes:

UM SUSTAINABILITY AND DEVELOPMENT CENTRE (UMSDC)
PUSAT PEMBANGUNAN KELESTARIAN UNIVERSITI MALAYA

EcoCampus@UM . Rimba Ilmu . Makerspace@UM

@um.sustainability

@UniMalayaSDC

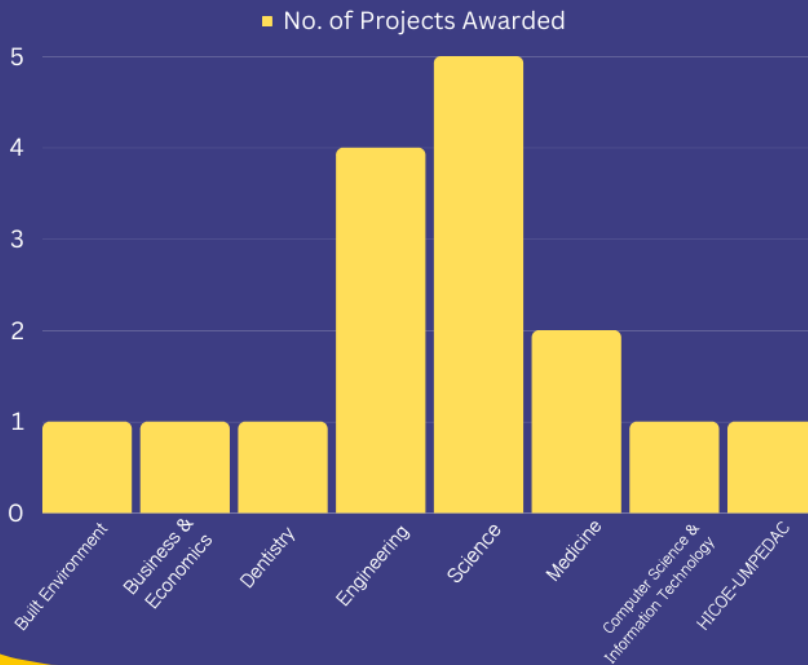
UM Sustainability

<https://sustainability.um.edu.my>



Congratulations and All the Best
UM Living Labs @ UMSDC Grants Recipients
Cycle 2023/2024
(September 2023 - September 2024)

**UM ECOCAMPUS
LIVING LABS GRANT
NUMBER OF PROJECTS BY FACULTY/PTJ**



Notable mentions on Departments:

- Institute of Biological Sciences (ISB) (1)
- Department of Physics (1)
- Department of Science & Technology Studies (3)
- Department of Chemical Engineering (1)
- Department of Biomedical Engineering (1)
- Department of Electrical Engineering (1)
- Department of Civil Engineering (1)
- Department of Software Engineering (1)
- Department of Political Science, Public Administration & Development Studies (1)
- Department of Architecture (1)
- Department of Physiology (1)
- Department of Paediatric Dentistry & Orthodontics (1)
- Department of Social and Preventive Medicine (1)
- HICOE-UMPEDAC (1)



Congratulations and All the Best
**UM Living Labs @ UMSDC Grants Recipients
Cycle 2023/2024
(September 2023 - September 2024)**

**UM ECOCAMPUS
LIVING LABS GRANT
TOTAL FUNDING AWARDED (RM) PER FACULTY/PTJ**

