



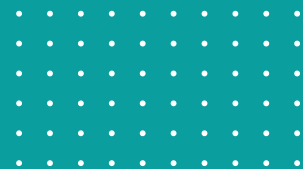
UNIVERSITI MALAYSIA PAHANG
AL-SULTAN ABDULLAH

SUSTAINABLE DEVELOPMENT GOALS REPORT

UNIVERSITI MALAYSIA PAHANG
AL-SULTAN ABDULLAH 2023



TEKNOLOGI
UNTUK
MASYARAKAT



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1 NO POVERTY



SDG 1: No Poverty

Yayasan UMPSA

Yayasan UMP currently known as Yayasan UMPSA

Yayasan UMPSA is determined to continue its efforts in fundraising to support individuals in need. Through various initiatives, including fundraising, industry collaboration, welfare programs, and community programs, Yayasan UMPSA is committed to supporting inclusive educational aspirations and providing equal opportunities to all segments of society, with the hope of creating a brighter future for those in need of assistance.

Among the roles of Yayasan UMPSA are fundraising and management, student welfare, educational programs, community programs, additional learning facilities, as well as networking and collaboration. Through these roles, Yayasan UMPSA helps ensure the smooth running of student welfare and university development, as well as supporting programs that benefit the broader community.

Endowment and Fund of Yayasan UMPSA

- ▶ Student Scholarship Endowment
- ▶ Disaster Endowment
- ▶ Infrastructure Endowment
- ▶ Waqaf Endowment
- ▶ Excellent Endowment
- ▶ Research and Lab Endowment
- ▶ Student Scholarship Endowment
- ▶ Mosque Endowment
- ▶ ICommunity Endowment
- ▶ Ramadhan Endowment

SDG 1: No Poverty



Yayasan UMPSA

Waqaf Fund

UMPSA successfully raised a waqf fund of RM3,218.00 in 2023, bringing the total amount of waqf funds collected to RM29,092.66.



RM3,218.00

2023 Total Waqaf Fund

RM29,092.66

Total Waqaf Fund

RM1,870,766.00

2023 Total Endowment Fund

RM10,856,749.41

Total Endowment Fund



Endowment Fund

For the endowment fund, UMPSA successfully raised RM1,870,766.00 in 2023, bringing the total amount of endowment funds collected to RM10,856,749.41.



This summary represents the funds approved by the Board of Trustees of the UMPSA Foundation in 2022 and 2023, including financial contributions, collaborative programs, and in-kind (goods) donations from corporate bodies, private agencies, and philanthropists.

RM2,337,837.05

Total Distribution



Education
RM1,744,826.47



Community
RM468,088.50



Disaster
RM124,922.08



2500
Beneficiaries

SDG 1: No Poverty

Distribution of Education Funds for the Year 2023

1	Student Zakat RM1,744,826.47	2	Education Incentive RM48,000.00	3	Excellent Incentive RM1,744,826.47		
4	Volunterism Incentive RM3,000.00	5	Publication Incentive RM30,000.00	6	Platinum Excellent Incentive RM1,744,826.47	7	Yayasan UMPSA Scholarship RM259,517.00
8	Etiqa Takaful Scholarship RM20,000.00	9	Yayasan Noah Scholarship RM9,132.00	10	Biasiswa Sulung RM18,930.00	11	Anak Cemerlang Pahang RM18,870.00
12	Yayasan UMPSA Loan RM1,880.00	13	UMPSA Campus Pantry RM30,992.50	14	Iftar and Ramadhan Program RM160,549.57	15	UMPSA E-Kupon Kasih RM1,744,826.47

Strategic Partner

They are the backbone of the success of the programs under Yayasan UMPSA

'Giving is not just about donating but also about making a difference'



ASEAN Exploration Journey

The ASEAN Exploration Journey Program is an initiative designed to engage with communities by creating networks of community service, providing contributions, and offering volunteer services on a global level in a strategic and targeted manner, ultimately shaping student leadership through programs held abroad.



SDG 1: No Poverty

Kembara Prihatin Program

The Kembara Prihatin Program is an initiative designed to engage with and support diverse communities across the country. This program aims not only to alleviate the burdens faced by these communities through the expertise and technology provided by UMPSA but also to enhance quality their daily lives. Through a combination of academic knowledge and practical application, this program aims to leverage technology and innovation to solve everyday problems and improve the standard of living of local communities.



Technology Cluster	Community Cluster	Education Cluster	Sustainable Cluster	Spiritual Cluster
<ul style="list-style-type: none"> • Solar Project and Solar Kit • Prebiotic Fertilizer Project • Pineapple Mushroom Project • Motorcycle Service and Engine Oil Change • Electrical Maintenance and Wiring • STEM Project 	<ul style="list-style-type: none"> • Foster Family Program • Community Gathering and Cooking Competition • Traditional Sports • Coloring Contest and EA Sports • Cultural Night • Mural Activities 	<ul style="list-style-type: none"> • Inspire - Direction for National Secondary School or National School Students • Academic Exhibition • Community Tutoring • Short Courses • Street Science 	<ul style="list-style-type: none"> • Health Check-up • Plogging and Community Clean-up • Grooming and Haircut Classes • Aerobics • E-Sports Competition 	<ul style="list-style-type: none"> • Young Imam Program • Lecture/Grand Forum • Funeral Management Course • Al-Fatihah Clinic • Salawat Night • Hajj Simulation



2 ZERO HUNGER





SDG 2: Zero Hunger

Bakul Rahmah KPT-UMPSA helps flood victims in Kota Tinggi

Universiti Malaysia Pahang Al-Sultan Abdullah (UMPSA) mobilised the Southern Flood Volunteer Mission by distributing donations to help flood victims in Teluk Hutan Lesung Village, Tanjung Sedili, Kota Tinggi. A total of 100 donations of Bakul Rahmah KPT-UMPSA in the form of food and necessities as well as 200 sets of Ready to Eat food packages through retort technology under the [food@campus](#) initiative (UMPSA Campus Pantry) in collaboration with the Ministry of Higher Education (MOHE) were distributed to help flood victims. In the first stage, 3,500 food packs were distributed at Universiti Malaysia Kelantan (UMK) and Universiti Malaysia Terengganu (UMT) to victims of the east coast floods in December.

Food Bank Program

The Student Food Bank Program is a continuation initiative from the Food Bank Malaysia Program. This program aims to assist students from B40 families, enabling them to focus better on their studies. The inception of this program also follows the National Cost of Living Action Council (NACCOL) Meeting 1, chaired by the Deputy Prime Minister on February 15, 2019.

The Student Food Bank Program is implemented through collaboration between the Ministry of Domestic Trade and Cost of Living (KPDN), strategic partners, higher education institutions (IPT), and donors to ensure the smooth execution of the program.

SDG 2: Zero Hunger

Objectives of the Student Food Bank Program

- To address the increasing cost of living faced by students.
- To reduce the burden on students so they can focus better on their studies.

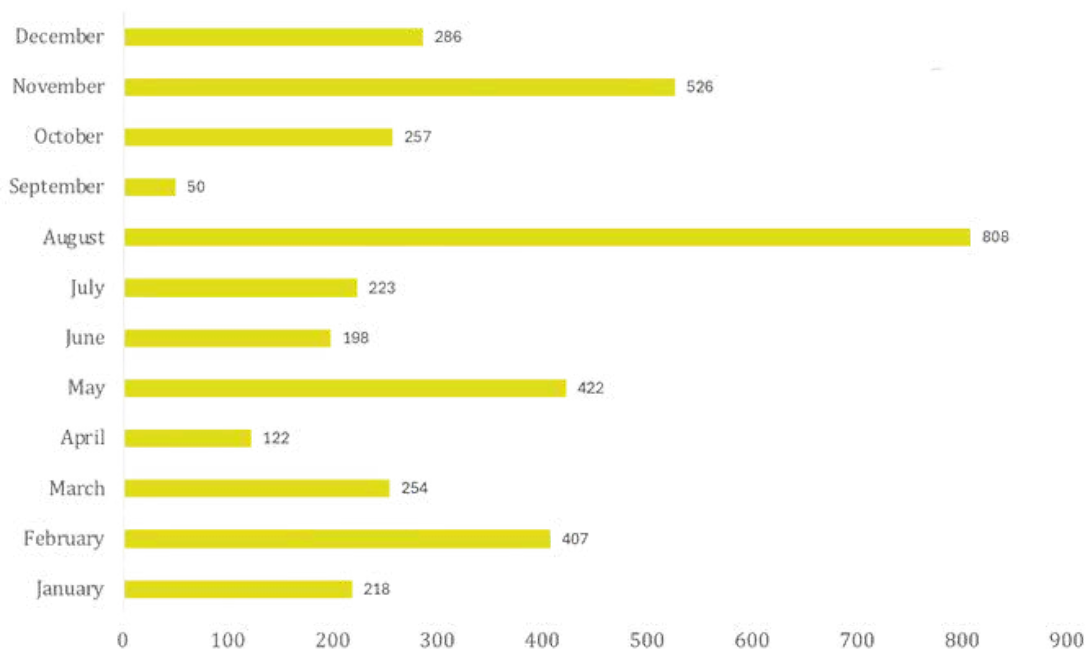
Target Group of the Student Food Bank Program

- Students from the B40 group (prioritizing those from families with an income of RM1,000 and below).
- Students in need who have been identified from time to time.

Implementation Concept of the Student Food Bank

- Food Pantry: A designated room for storing dry food items managed by the Student Association. Eligible students can collect food according to a set schedule.
- Central Kitchen: Contributions of fresh produce, such as vegetables and fruits, will be prepared and distributed to eligible students receiving assistance from the Food Bank.

Total Student Received Campus Pantry Benefit in 2023



SDG 2: Zero Hunger

E-Coupon Kaseh 2023

E-Coupon KASEH (Food)



In line with the university's vision towards a digital campus, UMPSA students have adapted to the UMPSA Kasih facility, which is the e-Food Coupon.

UMPSA students can now use the e-Kupon Kasih application available on Adab@UMPSA to obtain free food at selected cafeterias on the Gambang and Pekan campuses for those who qualify. This facility targets students from the B40 group and those in need. Students facing financial difficulties or lacking funds for meals, with valid reasons, are also eligible for this assistance.

E-Coupon KASEH (Petrol)

The e-fuel coupon is part of the UMPSA Kasih initiative, originally designed as a Food Coupon for students in need, using the Adab@UMPSA application to allow eligible students to obtain free food at campus cafeterias, officially launched on December 29, 2021.

Now, the UMPSA Kasih initiative has been enhanced with various additional benefits and expanded to include partnerships with external collaborators for the benefit of UMPSA students.



3 GOOD HEALTH AND WELL-BEING



SDG 3: Good Health and Well-Being

UMPSA Healthy Lifestyle Program 2023

Universiti Malaysia Pahang Al-Sultan Abdullah (UMPSA) campuses were buzzing with excitement as Services Management Division (Bahagian Khidmat Pengurusan - BKP) hosted the inaugural UMPSA Brisk Walk 3 km event. This event served as the kick-off for the Program Gaya Hidup Sihat UMPSA 2023, which aims to promote a healthy lifestyle among the UMPSA community. The event was held simultaneously at both Pekan and Paya Besar campuses and drew participation from various faculties and departments. With the main objective of promoting a healthy lifestyle, the response from participants were met with enthusiasm, and

they eagerly embrace the challenge. The brisk walk provided an excellent opportunity for participants to engage in physical activity and improve their overall well-being. Participants also took advantage of the event to socialise with colleagues and form new friendship. The event was very successful, with participants expressing their appreciation for the opportunity to participate and sharing positive feedback. In addition, many encouraged the organizers to continue hosting similar events in the future, citing the benefits to the UMPSA community.

UMPSA Healthy Lifestyle Program

10 May 2023	3km Brisk-walk
14 June 2023	Badminton
17 July 2023	10 Thousand Steps
9 August 2023	Aerodance/Aerobics
13 September 2023	UMPSA <i>Senam Seni</i>
11 October 2023	Paddle Boat, 3km Brisk-Walk, Bukit Sulai Hiking
15 November 2023	Campus Walk (5KM)
13 December 2023	Volleyball



SDG 3: Good Health and Well-Being

The Ifiter program succeeded in fostering health awareness



The I Fit and Eat Right (IFITER) program organized by the UMPSA Health Centre has succeeded in raising awareness among citizens concerned on health through healthy lifestyle practices and balanced nutrition. In this program, Administrative Executive Assistant, Faculty of Chemical and Process Engineering Technology (FTKKP), Norfarahani A. Bakar was crowned as the champion when she managed to lose 10 kilograms out of 102.5 kilograms.

The second place was won by Muhamad Badrulisham with a weight loss of 9.87 kilograms and managed to win RM700 in cash and the third place belongs to Wafa'a Mokhtar from the Department of Knowledge Management and Information Technology after successfully losing 9.63 kilograms and she received a cash prize of RM500.

At the same time, a total of eight participants received consolation prizes and received RM100 cash each. The program organized by the UMP Health Centre started around September last year with 80 participants who were selected to follow the program using a module developed by the Malaysian Ministry of Health (KKM) for six months.

4 QUALITY EDUCATION





SDG 4: Quality Education

Excellence in High-Level TVET

Holistic Graduates

The first core aspect is the development of holistic graduates who are balanced in terms of physical, emotional, spiritual, intellectual, and social dimensions. This holistic student development is achieved through both classroom learning and extracurricular activities.

Graduate Employability

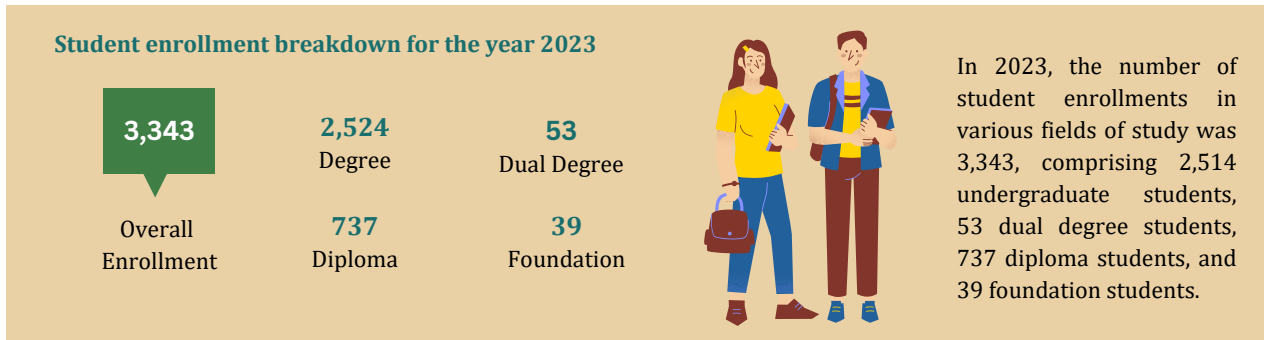


2023 Graduate Employability Achievement

90%	97.3%
Target	Achived

SDG 4: Quality Education

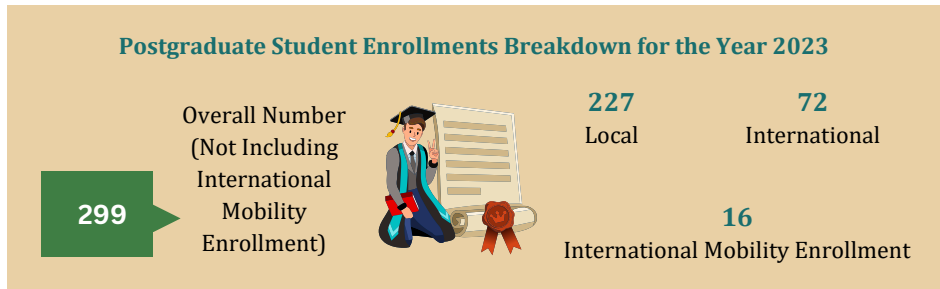
Student Intake



Details of Student Enrollments in Various Fields for the Year 2023

NO.	FIELD OF STUDY	DETAILS	TOTAL	OVERALL	
1	Degree	February Sem II Academic Session 2022/2023	389	2,514	
		Sem I Academic Session 2023/2024	2,125		
2	Dual Degree	February Semester II Academic Session 2022/2023	5	53	
		Semester I Academic Session 2023/2024	48		
3	Diploma	Semester I Academic Session 2022/2023	(UPU Intake)	709	737
			(PUPW Intake)	28	
4	Foundation	Semester I Academic Session 2022/2023	39	39	
TOTAL				3,343	

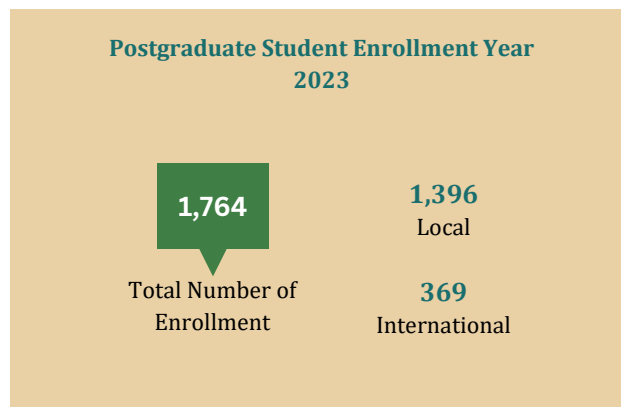
The number of postgraduate student enrollments in 2023 was 299, consisting of 227 local students and 72 international students. Additionally, there were 16 international mobility enrollments.



Student Enrollment



The total enrollment of UMPSA students in 2023 is 16,731 (excluding international mobility). Of this number, 14,967 are undergraduate students (excluding international mobility). Meanwhile, the enrollment of postgraduate students is 1,764



SDG 4: Quality Education

Postgraduate




16,731 Total graduate Postgraduate Program Year 2023

Total Graduate for Postgraduate Program	
80	85
Doctorate (PhD)	Master (Research)
76	76
Master (Coursework)	Master (Mixed Mode)

Total Graduate for International Student		
264	99	5
Doctorate (PhD)	Master (Research)	Master (Coursework)
1	4	
Master (Mixed Mode)	Mobility	

Total Enrollment International Student Year 2023 **373**



1,764 Total Postgraduate Enrolment Year 2023

Total Postgraduate Enrolment Student	
859	662
Doctorate (PhD)	Master (Research)
216	27
Master (Coursework)	Master (Mixed Mode)

Note:

- The details include active students, students on leave, graduates, dropouts, expelled students, failed students, and deceased students (including mobility students and summer program participants up to December 31, 2023).

UMPSA improved its Graduate Scholarship Scheme in 2023 by introducing scholarships and financial aid for postgraduate students. The aim of this scheme is to enhance academic efficiency at UMPSA's Graduate School, particularly to attract the best students to continue their studies at UMPSA, increase student enrollment numbers, encourage students to produce high-quality journal articles, and boost the number of students achieving the Intake Graduate on Time (IGOT) status.

Total Slot for Scholarship Scheme DRS and MRS Offered in Year 2023			
5	10	10	210
Basiswa Naib Canselor	Doctoral Research scheme (DRS) <i>Jom Sambung Doktor Falsafah</i> (PhD)	Master Research Scheme	Skim Mahasiswa Holistik
10	155	5	
Supervision Scheme	Working Student Scheme	Doctoral Research scheme (DRS) <i>Promosi</i>	



Honouring and Graduation

His Majesty the Yang di-Pertuan Agong Al-Sultan Abdullah Ri'ayatuddin Al-Mustafa Billah Shah, the Chancellor of Universiti Malaysia Pahang Al-Sultan Abdullah (UMPSA), will be attending to officiate the Proclamation Ceremony of UMPSA and the conferral of the Pro-Chancellor appointment to His Royal Highness the Regent of Pahang, Tengku Mahkota Tengku Hassan Ibrahim Alam Shah, in conjunction with the 18th UMPSA Convocation Ceremony from October 21 to 24, 2023, at the UMPSA Sports Complex Hall, Gambang Campus.

In 2023, a total of 4,854 graduates completed their studies, including 1,273 diploma graduates (including executive/professional diplomas), 2,762 bachelor's degree graduates (including dual degrees and executive bachelor's degrees), 749 master's degree graduates (including executive master's degrees), and 70 PhD graduates.

Number of Programs by Level of Study for the Year 2023

4,854

70
Doctorate (PhD)

749
Master

2,762
Degree

1,273
Diploma

Number of Graduates by Program for the Year 2023

UNDERGRADUTE PROGRAM		POSTGRADUATE PROGRAM		UMPSA ADVANCED	
Degree	2,284	Doctorate	70	Executive Master	588
Dual Degree	34	Master (Research)	75	Executive Bachelor	444
Diploma	858	Master (Coursework)	75	Executive Diploma or Profesional	415
		Master (Mixed mode)	11		
TOTAL	3,176	TOTAL	231	TOTAL	1,447

SDG 4: Quality Education

Alumni Relations and Graduate Employability



Alumnus of the Bachelor of Engineering Technology (Electrical) with Honours from the Faculty of Electrical and Electronic Engineering Technology (FTKEE) UMPSA, Lieutenant (PA) Kang Wei Xian of the Malaysian Civil Defence Force (APM), participated in the search and rescue mission for the earthquake tragedy in Adiyaman, Turkey. He has also served as the Head of Search and Rescue Operations in Batang Kali.

Alumni Statistics Details for the Year 2023



43,331

Total Number of Alumni from 2006 to 2023

42,344 Local

987 International

5 GENDER EQUALITY



SDG 5: Gender Equality

Equal rights in education and employment refer to the principle that all individuals, regardless of gender, have the same rights to access educational and employment opportunities. This includes access to quality education at all levels, skill training, and fair and equal job opportunities in the labor market. Therefore, UMPSA places great emphasis on this factor in various considerations when it comes to the recruitment of students and staff at UMPSA.

Diagram 5.1 Gender Population in Diploma

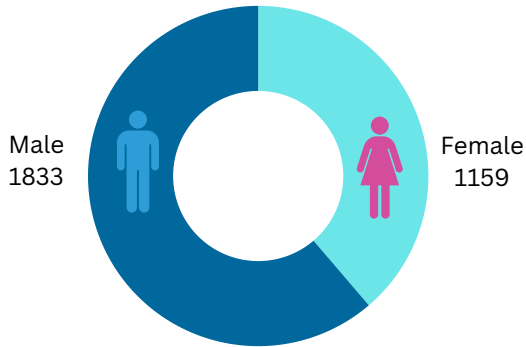


Diagram 5.2 Gender Population in Bachelor

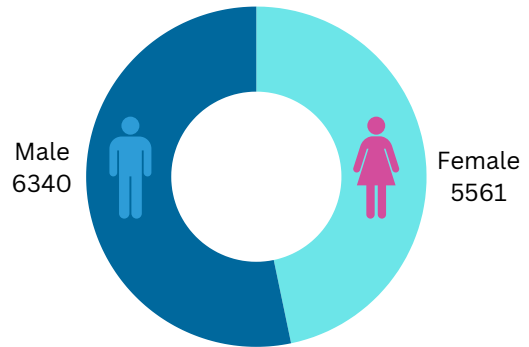


Diagram 5.3 Gender Population in Master's Degree

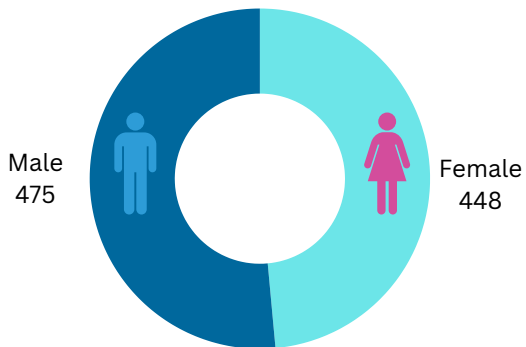


Diagram 5.4 Gender Population in Doctor of Philosophy

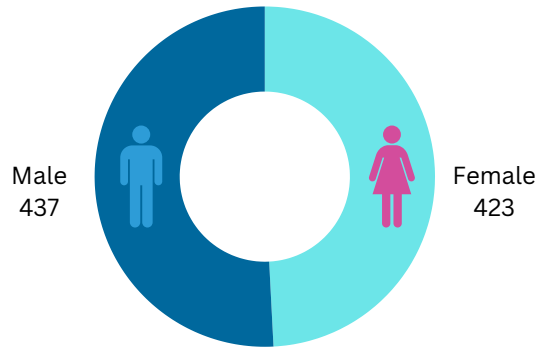


Diagram 5.5 Gender Population in Doctor of Philosophy

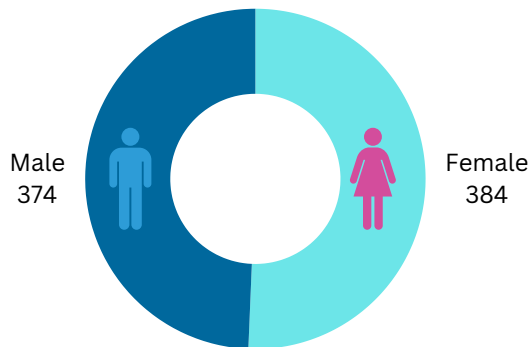
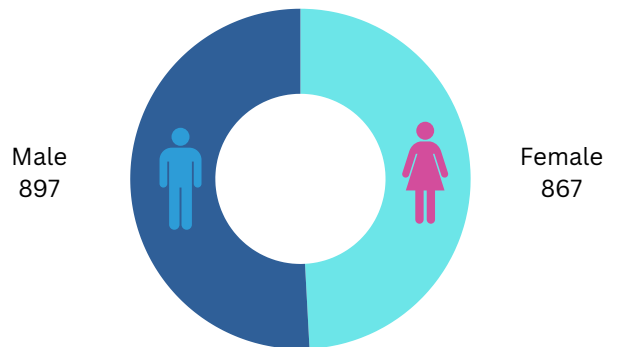


Diagram 5.6 Staff Population



6 CLEAN WATER AND SANITATION

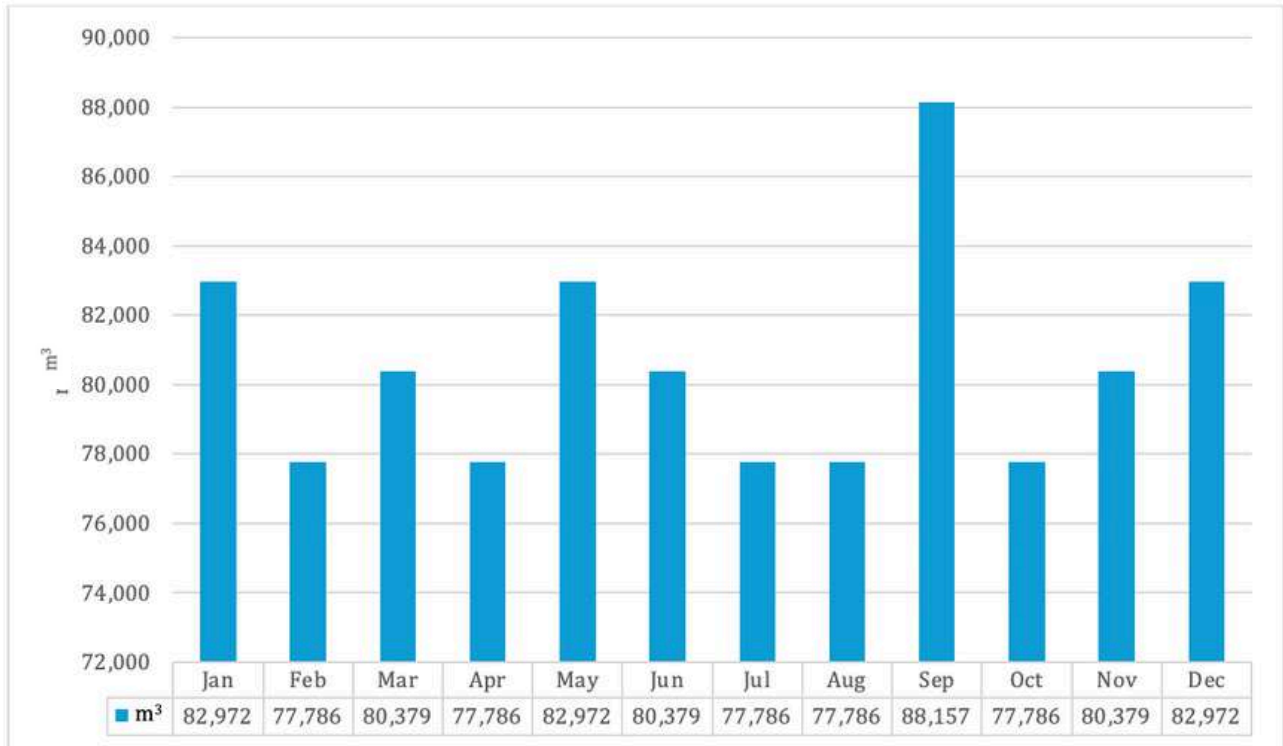


SDG 6: Clean Water and Sanitation

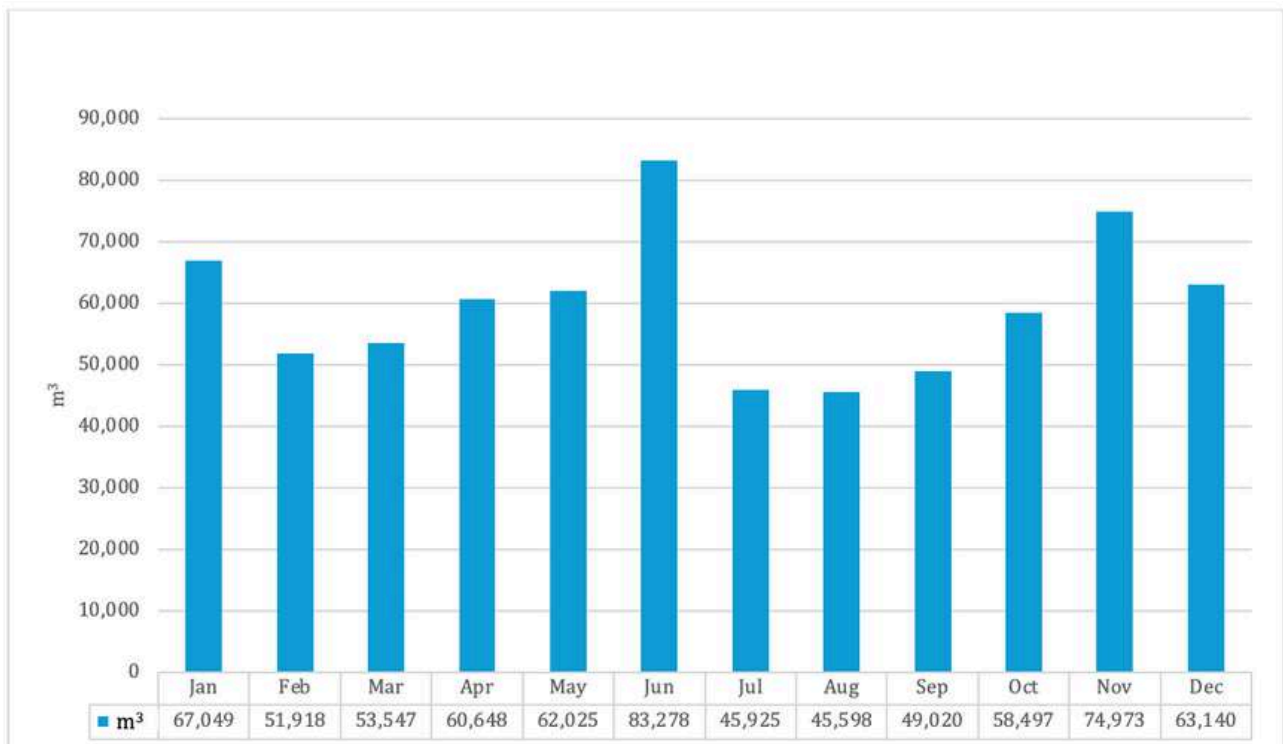
UMPSA Water Consumption

In 2023, Centre for Property Management and Development has taking initiative to closely monitor water consumption inside campus both for UMPSA Pekan and UMPSA Gambang. The monitoring data will be used as data collection for Low Carbon City Challenge 2030.

Water Consumption in Pekan Campus



Water Consumption in Gambang Campus



SDG 6: Clean Water and Sanitation

Installation Water Meter

Centre for Property Management and Development as taken the initiative to replace and add water meters in the building and area to measure non-revenue water (NRW). The process of installing new meters has taken place in 12 strategic areas. UMPSA has targeted to reduce its NRW up to 25% - 20% at the year 2025 to 2030.

New Water Meter Installation in Pekan Campus

NO	LOCATION	PIPE SIZE	METER NO
1	Football Field	50mm	M108
2	Landscape, Jogging Track, ADAB Building	32mm	M109
3	Asrama 648 Landscape Pipe Hydrent Block A	63mm	M94
4	Asrama 1400 Hydrent Block E	50mm	M77
5	Faculty of Mechanical and Automotive Engineering Technology - Hydrent Block Administration	32mm	M28
6	Faculty of Mechanical and Automotive Engineering Technology - Hydrent Block 3A	32mm	M29
7	Faculty of Mechanical and Automotive Engineering Technology - Hydrent Block 4A	32mm	M30
8	Faculty of Mechanical and Automotive Engineering Technology - Hydrent Block 4B	32mm	M31
9	Faculty of Mechanical and Automotive Engineering Technology - Shared Toilet (RED CAFÉ)	32mm	M33
10	Faculty of Mechanical and Automotive Engineering Technology - Old Solar Site Office	32mm	M34
11	Faculty of Mechanical and Automotive Engineering Technology - Block G (Taman Rimba Area)	32mm	M10
			M11
			M12
			M13
			M14
12	Library - Landscape pipe around the building	50mm	M58

SDG 6: Clean Water and Sanitation

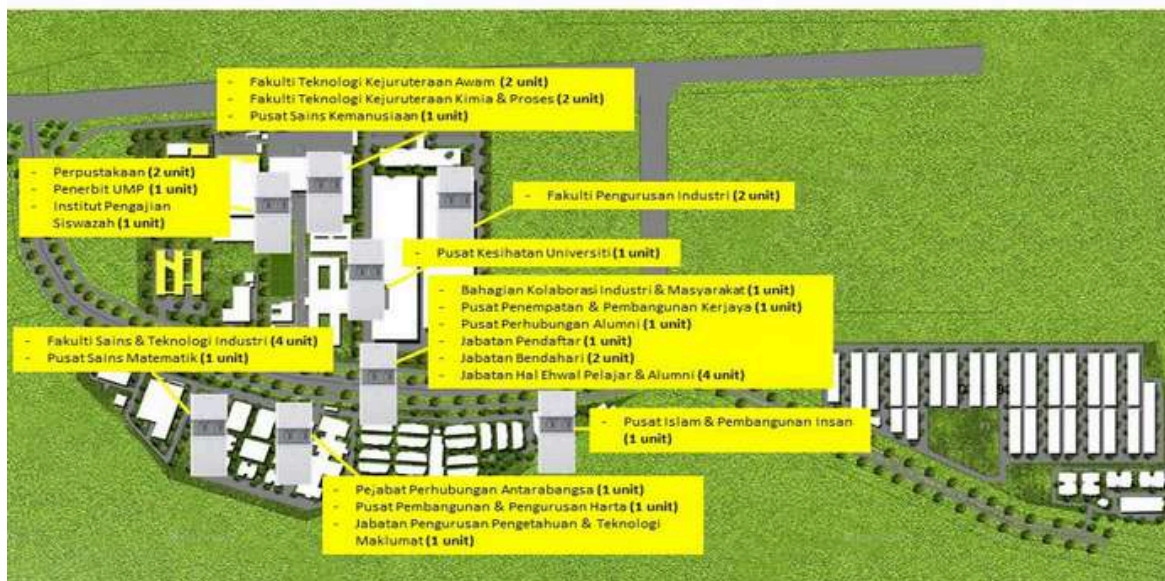
Drinking Water

UMPSA provides free drinking water for students, staff, and visitors. There are numerous locations equipped with free drinking water. The water from the main supply is treated before being supplied as drinking water.

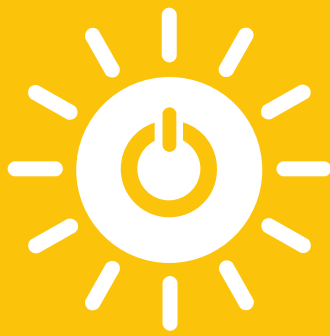
Drinking water supplies at UMPSA Pekan



Drinking water supplies at UMPSA Pekan



7 AFFORDABLE AND CLEAN ENERGY

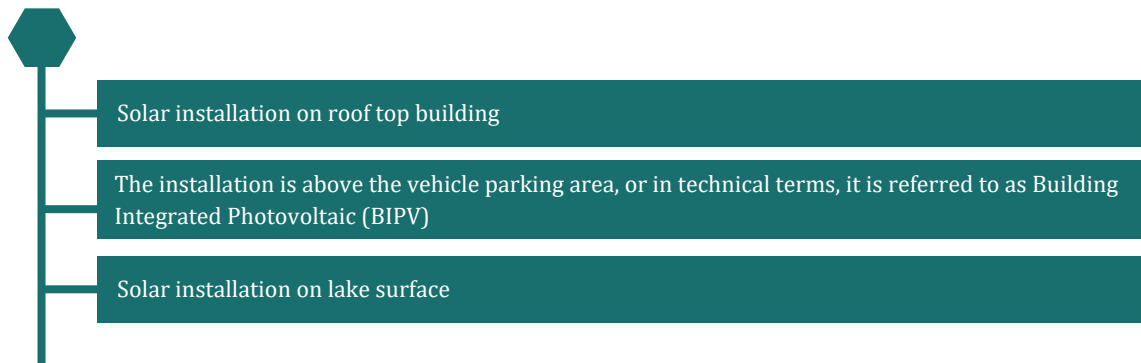


SDG 7: Affordable and Clean Energy

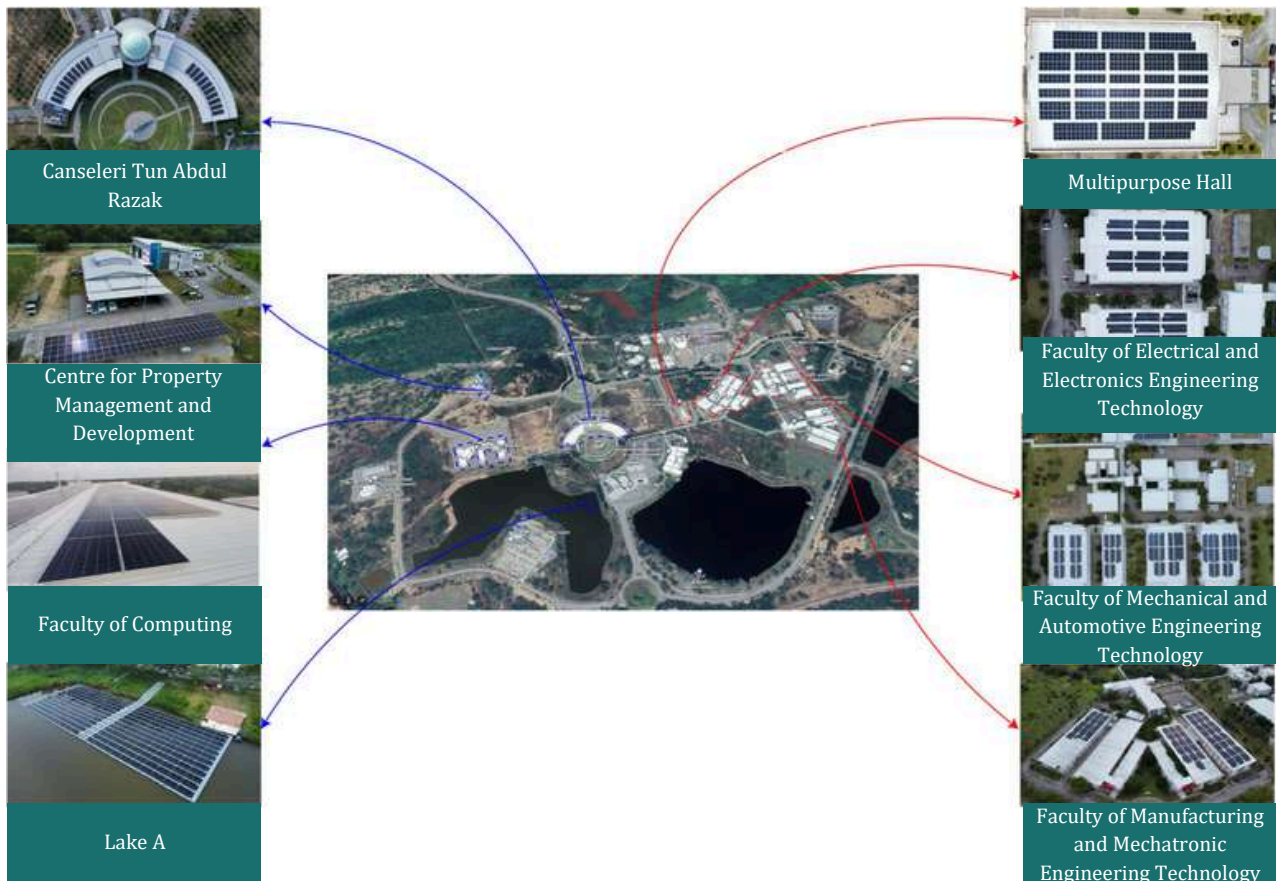
Sustainable Campus

UMPSA is a landmark of higher education for the state of Pahang. As one of the public universities (UA) with a technology focus, UMPSA actively engages in education, learning, and research activities related to current technologies, especially in pioneering renewable technologies. Electricity is a core component for running a business. Education is also a branch of business, and ensuring a continuous power supply is crucial.

Electricity is generated from fuels such as coal, gas, and oil, which are finite resources. Therefore, renewable energy needs to be generated to address this issue. Electricity from sunlight, or solar energy, is not new in Malaysia, and this technology is becoming increasingly popular among users. UMPSA Pekan has installed a solar system with a capacity of 3.58 MWp for electricity generation. The installation began on May 8, 2023, and was fully completed on November 29, 2023.



This solar installation is expected to reduce carbon dioxide (CO₂) emissions at UMPSA Pekan by 47 percent, equivalent to an annual electricity bill savings of up to RM 600,000. The installation of a 157.2 kWp solar system on Lake A at UMPSA Pekan is part of UMPSA's research efforts focusing on ecosystem, safety, and power generation. This solar system on the lake is the first floating solar project in the state of Pahang, and UMPSA is also the first public university (UA) in Malaysia to install a solar system on a lake surface.



SDG 7: Affordable and Clean Energy

Greenpass Certificate

The Greenpass Certificate is a certification recognized by the Sustainable Energy Development Authority (SEDA) Malaysia, which proves UMPSA's efforts in reducing carbon dioxide (CO²) emissions into the environment. This certificate also demonstrates that UMPSA is on the right track in energy management and in supporting efforts toward a Carbon-Free Malaysia by 2050.



Greenpass Certificate

Awareness

The use of energy-efficient equipment, such as energy-saving lights, motion sensors, and energy-efficient air conditioners.

The installation of renewable energy systems such as solar technology, wind energy technology, biodiesel technology, and thermal energy technology.

In line with the National Green Agenda, UMPSA has launched the use of electric vehicles to harness technology and innovation for the benefit of the future and upcoming generations. The application of technology and the practice of a better lifestyle can be achieved through the reduction of carbon footprint, which will provide innovative solutions to the energy industry. Through this initiative, two electric buses and two electric vans, along with EV charging stations, have been introduced at UMPSA to promote low-carbon use and energy-efficient smart vehicles.



Lake A

8 DECENT WORK AND ECONOMIC GROWTH





SDG 8: Decent Work and Economic Growth

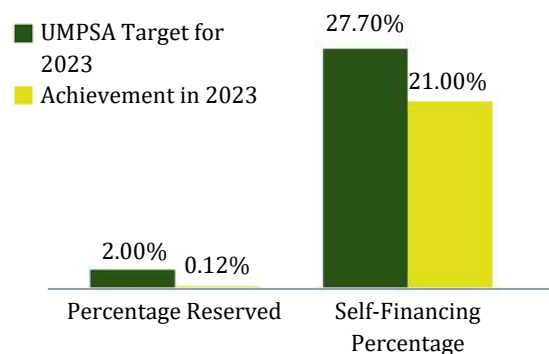
Strengthening Financial Resources

Targets for Strengthening Financial Resources

1. Increase in University Reserves: This refers to UMPSA's ability to enhance its reserves. This can be achieved through measures such as reducing operational expenses and increasing internal university revenues.
2. Percentage of Self-Financing Reserve Improvement: The social entrepreneurship approach refers to self-financing social operations.

In 2023, the percentage increase in reserves was 0.12 percent compared to the target of 2 percent based on the reserves from 2022. This reduction in reserve increase is attributed to the one-off purchase of university vehicles amounting to RM4.87 million and the capitalization of the development of Kolej Mawaddah amounting to RM6.35 million, as well as expenditures for upgrading and replacing outdated learning and teaching infrastructure in lecture halls and classrooms. Meanwhile, for self-financing percentage, the achievement for 2023 was 21.0 percent compared to the university's target of 23.7 percent.

Strengthening UMPSA's Financial Resources for the Year 2023



SDG 8: Decent Work and Economic Growth

Graduate Entrepreneurship

The third core under this strategic objective focuses on nurturing entrepreneurs among UMPSA graduates.

Creative Entrepreneur Development



Entrepreneurship Programs

Creativepreneur Courses (Basic Haircutting, Bakery, Barista), Uniprenuer Enhancement Program Sessions 1 and 2, Siswaprenuer CelcomDigi, Bootcamp, Automotive Incubator Bootcamp, KeSSISWA, DICE 2023, UTC 2.0

Strategic Collaboration Partners

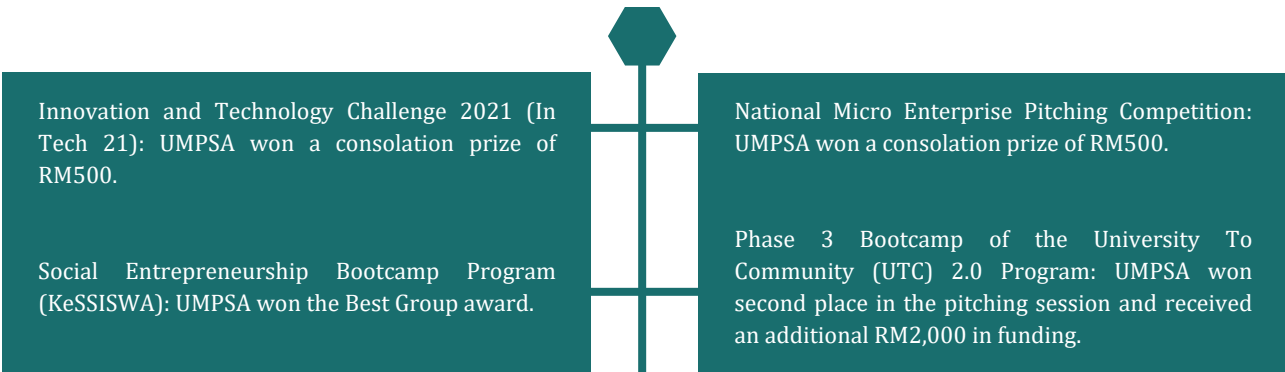
EPF (Employees Provident Fund), Bank Negara Malaysia, Inland Revenue Board, Rezki Fajar Sdn. Bhd., Talencorp, Companies Commission of Malaysia, Maybank Berhad, Celcom Digi, HRD Corp, Bank Rakyat



High-Impact Student Entrepreneurs (B+ Rating Category)

Azrul Azuan Ahmad, Anang Rustanto Suwito, Fizmi Global, Faqur Traditional Massage, Shahira, Hafiza Enterprise, Tashar Rajali Enterprise, Hi Chocojar Enterprise, E&D Tech Enterprise, RR, Printing Services, Mika's Chocojar, Jusz Eat, SA Jersey.

List of Student Entrepreneurship Achievements for the Year 2023



SDG 8: Decent Work and Economic Growth

List of High-Impact Student Entrepreneur Companies for the Year 2023

NO	STUDENT NAME	COMPANY NAME	TYPE OF BUSINESS	CATEGORY RATING
1	Azrul Azuan Ahmad	Azrul Azuan Ahmad	Food (Oden)	B+ (Freelancer)
2	Anang Rustanto Suwito	Anang Rustanto Suwito	Food (Shawarma)	A (Job Creator)
3	Nik Mohamad Fahmi Sabri	Fizmi Global	Food (Ayam Gunting)	B+ (Freelancer)
4	Nurhaiqal Faqrur Islam Norashid	Faqrur Traditional Massage	Massage Services	B+ (Freelancer)
5	Nurshahira Hafiza Zakaria	Shahira Hafiza Enterprise	Food (Hokkaido Cake and Biscuits)	B+ (Freelancer)
6	Nurtasha Syahira Rajali	Tashar Rajali Enterprise	Food (Sour Mango and Various Foods)	B+ (Freelancer)
7	Muhammad Harith Ikhwan Mohd Radzuan	Hi Chocojar Enterprise	Food (Choco Jar)	B+ (Freelancer)
8	Edzannizam Ramlan	E&d Tech Enterprise	Laptop and Smartphone Repair Services	B+ (Freelancer)
9	Nuraisya Ashikin Razaruddin	RR Printing Services	Printing Services	B+ (Freelancer)
10	Putera Mikael Heikal Svhaiful Afanddi	Mika's Chocojar	Food (Choco Jar)	B+ (Freelancer)
11	Sofia Afifah Hazemi	Jusz Eat	Pet Food (Cat)	B+ (Freelancer)
12	Muhammad Syafiq Aiman Suhirman	SA Jersey	Clothing Sale	B+ (Freelancer)



List of Student Entrepreneurship Achievements for 2023

- Meeting and Business Affiliate Talk Program
- Intreemall
- Creativepreneur Course: Basic Haircutting
- Financial Literacy Program with EPF (Employees Provident Fund)
- Pahang Innovate Accelerator Program
- Bank Rakyat Uniprenuer Enhancement Program 3.0
- Creativepreneur Course: Bakery
- Creativepreneur Course: Barista
- Pre-Automotive Incubator Course

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE





SDG 9: Industry, Innovation and Infrastructure

Innovation through Industry Collaboration

The year 2023 has witnessed the results of the strengthened and empowered transformation agenda for research, industrial innovation, and commercialization in line with the Strategic Plan of Universiti Malaysia Pahang Al-Sultan Abdullah (UMPSA) 2021-2025. The 'Technology for Society' approach refers to UMPSA's efforts to provide scientific, technical, or innovative solutions to issues and problems faced by the community using technology. UMPSA's achievements in research are a source of pride.

Initiatives by the Department of Research and Innovation to ensure a research and commercialization ecosystem

KPI 2B(1): Projects to Upgrade Community Technological Capabilities by UMPSA (Made in UMPSA) through the Product Development Grant (PDU) and Made in UMPSA Grant

KPI 2B(2): Academic Staff with UMPSA-Industry Matching Grants through the Seed Money for Project Hunting, Consortium & Committee Research Working Group, Strategic Partnership Fee, Industry/International/Agency Matching Grants, and Joint Collaboration (joint publications, networking, linkages)

Therefore, the Department of Research and Innovation (JPI) is actively driving initiatives to ensure the success of the research and commercialization ecosystem. The 'Technology for Society' approach refers to UMPSA's efforts to provide scientific, technical, or innovative solutions to issues and problems faced by the community using technology. UMPSA's achievements in research are a source of pride. Consequently, the Department of Research and Innovation is actively spearheading initiatives to ensure the effective implementation of the research and commercialization ecosystem.

SDG 9: Industry, Innovation and Infrastructure

Product Development Grant

The product development grant is an internal grant specifically awarded to professional and academic staff for the creation of products or prototypes that can contribute to the technical advancement of the industry. The products or prototypes developed function effectively and can be tested and utilized by the local community (industry, agencies, and society). This special grant aligns with the UMPSA theme of "Technology for Society."

List of Product Development Grants for 2023

NO	RESEARCH	RESEARCH PROJECT	FACULTY
1	Associate Professor Ir. Ts. Dr. Wan Sharuzi Wan Harun	Development of a Localized Spare Part Project for Crawler Dumpers in Pahang State Agricultural Development Corporation (PKPP) Refurbishing	Faculty of Mechanical and Automotive Engineering Technology
2	Associate Professor Ir. Dr Akhtar Razul Razali	Design and Development of a Depth Sensor for Penetration Probe Test	
3	Associate Professor Ts. Dr. Mohd Azrul Hisham Mohd Adib	Non-Invasive Preemies Car Seat (Preecase) Monitoring Device for Implementation in Automotive-Healthcare Industry	
4	Idris Mat Sahat	Development of Driving Simulator for Driving Trainee	
5	Associate Professor Ts. Dr. Hadi Manap	Development of a Methane Gas Sensing System Using Doas Technique for Remote Detection and Monitoring	Faculty of Electrical and Electronics Engineering Technology
6	Associate Professor Ts. Dr. Roshahliza M Ramli	IOT Enabled Solar-Powered Precision Irrigation Management for UMP Sustainable Farm	
7	Ts. Muhamad Ridzuan Radin Muhamad Amin	Automated Fabric Cutting Process in Fabric Industry	
8	Ts. Dr. Mohd Shafie Bakar	Development of Training Kit DC-DC Converter for Power Electronics Field	
9	Ir. Ts. Dr. Norizam Sulaiman	Development and Implementation of Eeg-Based Microsleep Detection and Feedback System for Vehicle Driver	
10	Mohd Falfazli Mat Jusof	Real-Time Detection of Leaks in Pipeline Systems using Accelerometer Wireless Sensor Networks	
11	Ts. Mohd Najib Razali	Prototype Development of Biodegradable and Green Degreaser for Industrial Application	Faculty of Chemical and Process Engineering Technology
12	Dr. Mohd Azri Hizami Rasid	Development of Permanent-Magnet-Less Synchronous Reluctance Machine Prototype and its Assembly Tools	Faculty of Manufacturing and Mechatronic Engineering Technology
13	Dr. Munira Mohd Ali	Development of Fresh Produce Information Management System: Empowering Informed Decision-Making and Operational Efficiency	
14	Danial Mohamed	Development of a Capacitance-based Humidity Evaluation System with Temperature Monitoring for Paddy Seed	Research & Innovation Department

SDG 9: Industry, Innovation and Infrastructure

Industry Research Grant

For funding acquisition from the industry, UMPSA has received 27 industrial research grants, with a total funding amount fully sponsored by industry and private companies. The total funding received for these 27 research grants is RM655,160. Most of these industrial research grants are from new and diverse industries compared to previous years. This reflects an increasing level of trust in UMPSA researchers. Industry and private sector stakeholders have high hopes that UMPSA researchers will contribute to the development of innovative findings or new technologies that can enhance operational quality and subsequently boost their companies' sales.



List of Industrial Research Grant for 2023

NO	PROJECT LEADER	RESEARCH PROJECT	INDUSTRY	TOTAL FUNDING (RM)
1	Dr. Ismayuzri Ishak	Development of IOT Gateway Device for CNC Monitoring Application	Indsys Engineering Sdn. Bhd.	20,000.00
2	Ts. Dr. Mohamad Zairi Baharom	The Design and Development of ZB200 Light Support Bridge (LSB) for Rapid Bridging Solution	Stare Resources Sdn Bhd	17,000.00
3	Ts. Dr. Syafiq Fauzi Kamarulzaman	Design and Development of Elephant Intrusion Detector and Deterrence in Plantation based on Artificial Intelligence	Satok Bridge Digital Sdn. Bhd.	100,000.00
4	Ts. Dr. Lee Khai Loon	Effectiveness of Monsoonsim Enterprise Resource Planning (ERP) Business Simulation-Based Learning in Malaysia Higher Education	Infusion Information Technology Sdn. Bhd.	10,000.00
5	Associate Professor Ts. Dr. Khairil Azman bin Masri	Pilot Study of Cold Mix Asphalt	Yusri Maju Sdn. Bhd.	10,000.00
6	Associate Professor Ts. Dr. Abdul Rahimi Abdul Rahman	The Development Trade-Level Productivity Measuring Tool for Building Construction Projects	Cream Construction Research Institute of Malaysia	27,360.00
7	Dr. Mohd Azraai Mohd Razman	The Formulation of Deep Learning for the Classification of Fish Growth Detection	Flow Studios Sdn. Bhd.	20,000.00
8	Dr. Mohd Aizudin Abd Aziz	Exploring the Relationship Between Academic Staff Motivation and the Quality of Non-MQA Academic Programs in Malaysia	Capital Education & Skills Development Sdn. Bhd	6,000.00
9	Abbas Saliimi Lokman	IR4.0 Factory Automation- Artificial Intelligence Predictive Maintenance (Phase I)	Lumileds Malaysia Sdn. Bhd.	36,000.00
10	Ts. Dr. Ahmad Shahrizan Abdul Ghani	Integrated Machine Performance Monitoring System for Improvement of Printed Circuit Board Machine Efficiency	BM Nagano Sdn. Bhd.	15,296.00

SDG 9: Industry, Innovation and Infrastructure

NO	PROJECT LEADER	RESEARCH PROJECT	IDUSTRY	TOTAL FUNDING (RM)
11	Ts. Dr. Danakorn Nincarean a/l Eh Phon	Development of Virtual Reality Training for Firefighting	Fera Training Center Sdn. Bhd.	14,020.24
12	Ts. Dr. Nor Saradatul Akmar Zulkifli	Development of Virtual Reality Training for Fire Safety	Fera Training Center Sdn. Bhd.	11,288.40
13	Dr. Nurlin Abu Samah	Correlation of Physicochemical Properties among Water Quality Parameters at Partial of Pahang River	Pengurusan Pasir Pahang Berhad	15,000.00
14	Dr. Al-Fahim Mubarak Ali	Research and Development (R&D) of A Web Based Calculator of Required Pipe Repair Thickness and Length for A Composite Repair System	Gapura Solution Sdn. Bhd.	19,055.00
15	Associate Professor Dr. Irene Ting Wei Kiong	Comparative Financial Performance Analysis of East Asia Marine Engineering Sdn. Bhd. Vs Industry Peers : A Transportation and Logistics Sector Perspective	East Asia Marine Engineering Sdn. Bhd.	5,000.00
16	Dr. Ismayuzri Ishak	Development of A Universal Gas Detector Bump Test Station for Oil and Gas Industry	Hyperwave Systems Engineering Sdn. Bhd.	20,000.00
17	Ts. Mohd Najib Razali	Characterisation and Preliminary Study of Sugar Mud Waste for Development into Value-Added Products	Central Sugars Refinery Sdn. Bhd	27,000.00
18	Ts. Dr. Nasrul Hadi Johari	Development of an IOT System for Temperature and Humidity Monitoring in Madacorp Paddy Seed Production Plant, Kedah	Syarikat Perniagaan Peladang Mada Sdn. Bhd. (Madacorp)	35,000.00
19	Professor Chm. Dr. Chong Kwok Feng	Lanthanum and Cerium Market Applications in the Water Industry	Lynas Malaysia Sdn. Bhd.	112,140.00
20	Professor Ts. Dr. Muhammad Nubli Abdul Wahab	Kajian Pembangunan Program dan Modul Warga VAC Sejahtera	Vacuumschmelze Sdn. Bhd.	10,000.00
21	Professor Ir. Ts. Dr. Kumaran a/l Kadirgama	Elucidate the Interaction Mechanism of Supercaocitator/Baterries on Activated Carbon Dot Mxene Composite as Electrode Material for High-Efficiency Energy Storage	Alunan Puncak Sdn. Bhd.	30,000.00
22	Ts. Dr. Ahmad Firdaus Zainal Abidin	Understanding Cybersecurity Hardship in The Banking Industry: A Bibliometric + Web Search Issue Analysis to Analyze Both Academic Research and Public Discourse	Koperasi Co-Opbank Pertama Malaysia Berhad	10,000.00
23	Associate Professor Ts. Dr. Ruwaida Abdul Rasid	Sustainable Fuel Source from Thermal Treatment of Food Waste	IBG Environment Sdn. Bhd.	45,000.00

SDG 9: Industry, Innovation and Infrastructure

NO	PROJECT LEADER	RESEARCH PROJECT	INDUSTRY	TOTAL FUNDING (RM)
24	Ts. Mohd Najib Razali	Formulation and Manufacture of Feed for Layer Ducks	Koperasi Komuniti Amanah Pahang Berhad (KOMTA)	10,000.00
25	Associate Professor Dr. Azrina Abd Aziz	Enhancement of Spent 5w-40 Grade Lubricant Oil Characteristics with Diaphragm Pressure Filtration using Oleophilic-Hydrophobic like Silica Gels	KCN Environmental Solution Sdn. Bhd.	10,000.00
26	Associate Professor Dr. Ahmad Fitri Yusop	Analyzing The Impact of Multiple Factors and Interdependent Failures on Rail System Reliability	Rail Systematic Solution Sdn. Bhd.	10,000.00
27	Associate Professor Ts. Dr. Siti Rabiattul Aisha Idris	A Comprehensive Study of Solar Microgrid Systems for Sustainable Electrification	Tioman Development Authority	10,000.00

Industry Research Grant

Research Grant from Agency for 2023

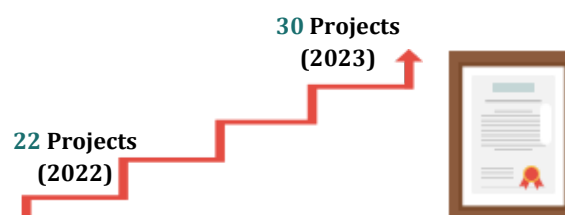
NO	PROJECT LEADER	RESEARCH PROJECT	AGENCY	TOTAL FUNDING (RM)
1	Dr. Rohana Hamzah	Pembangunan Modul Ilmu Kecerdasan Spiritual kepada Pendakwah	Majlis Ugama Islam dan Adat Resam Melayu Pahang	47,200.00
2	Dr. Ahmad Taufik Nursal	Macroeconomic Modelling of The R&D&C&I Target	Ministry of Economy	127,350.00
3	Dr. Mohd Khairul Izamil Zolkefley	Early Detection of Noise-Induced Hearing Loss (NIHL) from Brain White Matter Integrity: A Magnetic Resonance Imaging Study	National Institute of Occupational Safety and Health (NIOSH)	86,500.00
4	Encik Wan Nazrul Helmy Wan Mohd Zain	Penyelidikan Penerbitan Buku 'Pancawarna : Al Sultan Abdullah Ri'ayatuddin Al-Mustafa Billah Shah'	Majlis Ugama Islam dan Adat Resam Melayu Pahang (MUIP)	50,000.00
5	Associate Professor Dr. Fazeeda Mohamad	Pembangunan Rangka Tindakan dan Pelan Strategik untuk Majlis Pekerja Negeri Pahang (MPNP)	Majlis Pekerja Negeri Pahang	348,000.00
6	Encik Wan Nazrul Helmy Wan Mohd Zain	Penyelidikan Penerbitan Buku 'Memoir Lima Dekad : Stadium Darul Makmur, 1973-2023'	Perbadanan Stadium Darul Makmur	145,000.00
7	Associate Professor Dr. Rashidi Abbas	Kajian Pencapaian Pembelajaran Tahfiz dan Hubungan Dengan Kemudahan Infrastruktur Maahad Tahfiz di Negeri Pahang	Maahad Bahasa dan Ilmu Al-Quran (MABIQ)	5,000.00
8	Dr. Nurul Ashykin Abd Aziz	Exploring Readiness Factors to Expand to International Markets: A Study on Malaysian Home- Grown Franchise Industry	Institut Masa Depan Malaysia (MASA)	10,000.00

SDG 9: Industry, Innovation and Infrastructure

NO	PROJECT LEADER	RESEARCH PROJECT	AGENCY	TOTAL FUNDING (RM)
9	Associate Professor Dr. Muhammad Ashraf Fauri@ Fauzi	Talent Management For Excellence Series (TAME) 5th Cohort	AKEPT KPT	180,000.00
10	Professor Dr. Hasan Ahmad	Study on the Authenticity, Documentation, and Preservation of the Gravestone Heritage of Permatang Pasir, Pekan, Pahang	Yayasan Pahang	100,000.00
11	Dr. Anita Abdul Rani	Survey Study on the Understanding of the Creed of Ahli Sunnah Wal Jamaah among University Students in Higher Learning Institutions (HI) in the State of Pahang	Majlis Ugama Islam dan Adat Resam Melayu Pahang	40,000.00
12	Mejar Dr. Imaduddin Abidin	Development of the Smart Quran Incinerator (IQP)	Jabatan Agama Islam Pahang	65,000.00
13			Wakaf Pahang	65,000.00

Intentional Research Grant

This international grant is a research grant fully funded by organizations, industries, or agencies from abroad. The increase in trust from international parties in the technology and expertise of UMPSA researchers through this international grant collaboration is highly encouraging. This is evidenced by the rise in the number of international research grants received in 2023, totaling 30 projects compared to 22 projects in 2022. The percentage increase is 36 percent.



List of International Research Grants for the Year 2023

NO	PROJECT LEADER	RESEARCH PROJECT	AGENCY	TOTAL FUNDING (RM)
1	Dr. Mohd Jamil Mohamed Mokhtarudin	Dynamic Risk Factor Prediction for Myocardial Infarction Patients Using in-Silico Models	University of Liverpool	21,000.00
2	Associate Professor Ir. Dr Nurul Hazlina Noordin	Partnership for Innovation in Employability (PIE) Programme 2 - Women in Steam-H	Cardiff Metropolitan University	15,879.63
3	Associate Professor Ts. Dr. Mohd Ruzaimi Mat Rejab	Virtual Exhibition Space for Technical Historical Objects : Phase 2 - Augmented Reality	German Academic Exchange Service	430,134.25

SDG 9: Industry, Innovation and Infrastructure

NO	PROJECT LEADER	RESEARCH PROJECT	AGENCY	TOTAL FUNDING (RM)
4	Associate Professor Ir. Dr. Asnul Hadi Ahmad	Implementation of Digital Transformation Practices through the Capacity Building of Occupational and Industrial Stakeholders in Pakistan and Malaysia	Erasmus	450,363.98
5	Associate Professor Dr. Irene Ting Wei Kiong	Examining the Role of Environmental, Social and Governance in Developing the Financial Sustainability: an Extended ESG Model and Dynamic Panel Regression in Malaysia	Canadian University Dubai	22,742.50
6	Dr. Mohd Irwan Adiyanto	Seismic Vulnerability of Residential Buildings in Low-to-Moderate Seismic Region	Universitas Muhammadiyah Sumatera Utara	10,000.00
7	Associate Professor Ts. Dr. Khairunisa Muthusamy	Properties of Sustainable Polypropylene Fibre Reinforced Concrete	Universitas Muhammadiyah Sumatera Utara	10,000.00
8	Dr. Ahmad Afif Mohd Faudzi	Automatic Conveyor Design using Photoelectric and Dimmer Motor	Universitas Muhammadiyah Sumatera Utara	10,000.00
9	Ts. Dr. Nurjannah Salim	Mechanical and Thermal Properties Studies of Hybrid Durian Skin Fiber (DSF) and Palm Kernel Shell Fiber (PKS) Based Polyester Composite for Hot Water Pipes Application	Universitas Muhammadiyah Sumatera Utara	10,000.00
10	Associate Professor Ir. Dr. Nurul Hazlina Noordin	Empowering the Future: Digital Making Skill Sets in Stem Education	Cardiff Metropolitan University	8,750.00
11	Associate Professor Ir. Ts. Dr. Norazlianie Sazali	Drais-3dtrinal: Concept, Design, Manufacturing and Assembly of Bionically Inspired 3D-printed Draisines	University Karlsruhe University of Applied Sciences	186,000.00
12	Ts. Dr. Zainah Md. Zain	Encouraging Girls in STEM: Workshop on Electrical & Electronics	IEEE Tryengineering STEM Grant	6,500.00
13	Associate Professor Ir. Dr. Nurul Hazlina Noordin	Mystem Project: Be Inspired	Motorola Solutions Foundation	137,753.26

SDG 9: Industry, Innovation and Infrastructure

NO	PROJECT LEADER	RESEARCH PROJECT	AGENCY	TOTAL FUNDING (RM)
14	Associate Professor Dr. Nina Suhaity Azmi	In Vitro Elucidation of Anti- hyperglycemic and Antioxidant Activity of Lactic Acid Bacteria Isolated from Malaysian Fermented Foods: Jeruk Maman, Pekasam and Tapai	Malaysia Toray Science Foundation (MTSF)	15,000.00
15	Professor Ts. Dr. Muhammad Nubli Abdul Wahab	The Model of Smartphone Use as a Mediator of Selfcontrol, and Emotion Regulation in Nomophobia between Indonesia and Malaysia and Learning Intervention Module with HRV Biofeedback Training	University Ahmad Dahlan	5,000.00
16	Ts. Dr. Zainah Md. Zain	Ocean Educational Outreach Program 2023	IEEE OES (Ocean Decade Grant)	9,146.00
17	Professor Ir. Dr Ahmad Razlan Yusoff	Machines Condition Monitoring Based on Vibration Signal for Predictive Maintenance	Universitas Sebelas Maret	10,000.00
18	Dr. Tay Chai Jian	Sustainable Tropical Lake Management in Response to Climate Change	Kurita Water and Environment Foundation	12,749.00
19	Associate Professor Ir. Dr. Nurul Hazlina Noordin	Enhancing Digital Making Modules for Inclusive Stem Education: A Study of Pedagogical Approaches, Customization Strategies, and Assessment Methods within The P-tech Program@UMP STEM Lab	IBM Asia - Vietnam & Malaysia	69,000.00
20	Dr. Zetty Ain Kamaruzzaman	Malaysia and Indonesia Digital Unicorn: Development of Digital Entrepreneurial Ecosystem Model	Telkom University	23,350.00
21	Associate Professor Dr. Yudi Fernando	Building a Competitive Edge of Halal Industry in Malaysia and Indonesia: Exploring Blockchain and Carbon Footprint in Halal Supply Chain	Telkom University	23,300.00
22	Dr. Norwazli Abdul Wahab	Empowering Waste to Wealth through Waste Bank Programme in Higher Education Institution	Telkom University	22,000.00
23	Associate Professor Dr. Mohamed Ariff Ameen	Agricultural Revitalization in Higher Education Institutions of Asian Countries	Erasmus- Agrhi	324,232.20

SDG 9: Industry, Innovation and Infrastructure

NO	PROJECT LEADER	RESEARCH PROJECT	AGENCY	TOTAL FUNDING (RM)
24	Dr. Nor Azuana Ramli	Artificial Intelligence based Drone in Detecting Paddy Plant Disease	Telkom University	15,000.00
25	Associate Professor Dr. Januar Parlaungan Siregar	Investigation of Selected Fillers as Potential Eco-friendly Friction Materials for Sustainable Brake Pads	Universitas Tarumanagara	15,000.00
26	Ts. Dr. Nur Hidayah Mat Yasin	Development of Ecofriendly Biocomposite for Leguminous Vegetables Packaging Application	Universiti Muhammadiyah Sumatera Utara	15,000.00
27	Ts. Dr. Azri Alias	Innovation of Waste Composter using Heat Waste for the Household Level	Kasetsart University	15,000.00
28	Dr. Aainaa Izyan Nafsun	Investigation of the Drying Process of Oil Palm Waste for Animal Feed Production	Universitas Sumatera Utara	15,000.00
29	Associate Professor Ts. Dr. Norhayati Abdullah	Elucidation of CO ₂ Capture and Storage Efficiency using Hypercrosslinked Polymers: Insights from Kinetics and Thermodynamics Studies	Universitas Sumatera Utara	15,000.00
30	Associate Professor Ts. Dr. Noor Asma Fazli Abdul Samad	Enhancing Hydrogen Production from Air-steam Biomass Gasification Process: Experimental and Modelling Studies	Universitas Sumatera Utara	15,000.00

SDG 9: Industry, Innovation and Infrastructure

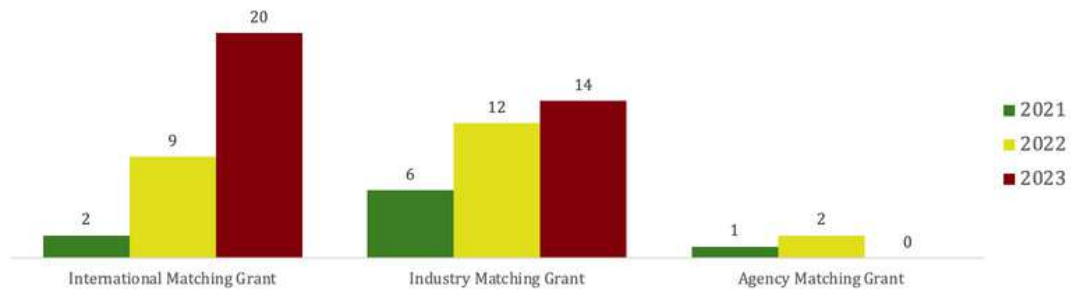
Matching Grant

The UMPSA Matching Grant is a grant established for researchers who have successfully secured research funding from international, industrial, and agency sources. This is an internal fund specifically allocated to match external funds. The initiative is designed to support the generation of ideas or opportunities to enhance the discovery of new ideas and the transfer of knowledge, with a focus on innovative and high-impact research in collaboration with external parties.

This grant encourages collaborative research partnerships and UMPSA's involvement with external parties in university research projects, which also involve joint ownership of research outputs such as intellectual property, co-authored publications, product creation, and human capital development. The Department of Research and Innovation (JPI) together with industry will contribute to research projects, with funding being a combination of university and industry funds. This combined funding operates on a matching basis, and through this initiative, it is hoped that close relationships and collaborative partnerships, as well as shared risks behind the success of a research project, can be encouraged.

Researchers and their industry partners will be directly or indirectly involved in ensuring that the project's targets and objectives are met within the stipulated timeframe.

Comparison of the Total Matching Grants from 2021 to 2023



Products Commercialisation and Technical Services

From 2016 to 2023, a total of 13 intellectual properties were licensed and sold, generating a total revenue of RM1,653,000.00 from the licensing and sale of these technologies.



Intellectual Property
(RM1,653,000.00)



Research Product
(RM7,467,314.67)

As of 2023, a total of 39 UMPSA research products have been successfully commercialized, with a cumulative gross sales of RM7,467,314.67 recorded. This marks an increase from 38 products commercialized in 2022, with the cumulative gross sales recorded for that year being RM7,467,314.67.

SDG 9: Industry, Innovation and Infrastructure

Number and Cumulative Product Sales Up to 2023

NO	COMMERCIAL PRODUCT	TOTAL SALES (RM)	NO	COMMERCIAL PRODUCT	TOTAL SALES (RM)
1	Recycling of Base Oil from Spent Lubricant	1,980,955.03	25	Kinora: Natural Lip Balm	32,964.00
2	Pisoptera	1,875,184.70	26	Iszuani Hongo 2	32,424.40
3	Pestkilla	896,637.22	27	Sleekpump	29,216.00
4	Mandarin for All 2	257,982.75	28	Inazuma Jap 1	266,853.00
5	Mandarin for All 1	237,841.05	29	Natural Antibacterial Hand Sanitizing Gel	15,796.00
6	DiaClean	199,894.00	30	FBG Sensor Mock	15,635.00
7	Emulsifier	196,281.60	31	Bio Root Tongkat Ali Capsule	8,216.00
8	Rediac	184,800.00	32	Organic Fertilizer	7,895.00
9	G-Bricks	181,221.40	33	Iszuani Hongo 1	13,109.00
10	Asarfonts	170,655.00	34	Nina Square Root	5,086.00
11	Oudino	218,274.22	35	Electronic Wheelchair	3,575.00
12	Inulin	130,950.00	36	Agrisoft	3,510.00
13	Dr. Fur	124,000.00	37	Kacip-Fatimah Based Supplements	2,795.00
14	E-Anfun Sensor	112,666.20	38	Merkit	1,981.00
15	Stem Bot	74,000.00	39	SleekDryer	1,700.00
16	Germs Free 2.0	59,878.00	TOTAL AMOUNT		7,470,375.07
17	Wrehab Device	59,620.00			
18	Pre-Pecto	53,575.55			
19	Gris	52,552.40			
20	Biofeedback	51,872.41			
21	Ekstrak Misai Kucing	40,404.96			
22	ECOSY Hive	33,842.28			
23	Home Detergent	33,842.28			
24	Jusz Eat Cat Food	33,470.50			



SleekDryer is a new UMPSA product that was commercialized in 2023. SleekDryer is a device used for the drying process of bee bread, making it 25 times faster than oven drying. The product's mass is reduced by seven percent within 30 minutes, without compromising the quality (nutrients, taste, and aroma) of the product.

SDG 9: Industry, Innovation and Infrastructure

Revenue Generation from Consultation and Technical Services

Consulting projects and technical services are one of the service activities conducted to enhance revenue generation for the university. Through these activities, the expertise of researchers can be highlighted while also strengthening collaboration between industry and the university.

In line with the national education system, universities must have the capability to produce human capital with high-level skills to meet industry demands. Universities also serve as centers of scholarship that house various expertise across multiple fields, benefiting all parties, especially industry and agencies, as well as society.

Collaboration between academia and external parties, both domestically and internationally, has the potential to generate revenue for the university. In alignment with UMPSA's strategic plan to achieve excellence through financial sustainability, consulting projects and technical services are one of the initiatives contributing to the university's income.



In 2023, there was a recorded increase of 42 percent compared to 2022, with a total of 170 registered projects and a gross project value of RM1,615,481.85. For technical service projects, a total of 397 projects were registered, with a project value of RM416,165.50.

Gross Revenue from UMPSA Consultation Projects Up to 2023



SDG 9: Industry, Innovation and Infrastructure

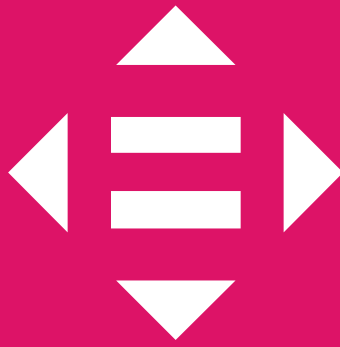
List of Registered Consultation Projects in 2023

NO	DEPARTMENT	TOTAL PROJECT	GROSS INCOME (RM)
1	Faculty of Civil Engineering Technology	65	443,479.61
2	Faculty of Manufacturing and Mechatronic Engineering Technology	8	314,242.26
3	Centre for Artificial Intelligence & Data Science	2	144,478.00
4	Center for Advanced Intelligent Materials	7	117,659.10
5	Central Lab	7	99,788.25
6	Centre for Bioaromatic Research	24	79,822.83
7	Faculty of Mechanical and Automotive Engineering Technology	6	79,208.42
8	Centre for Human Sciences	11	71,532.80
9	Faculty of Industrial Sciences and Technology	1	67,416.00
10	Faculty of Chemical and Process Engineering Technology	5	49,235.70
11	Centre for Sustainability of Mineral & Resource Recovery Technology	5	39,140.00
12	Centre for Research in Advanced Fluid & Processes	1	28,792.25
13	Faculty of Industrial Sciences and Technology	10	28,255.04
14	Faculty of Computing	3	18,067.66
15	Centre of Design and Technology Innovation	5	9,574.71
16	Centre for Automotive Engineering	4	8,776.80
17	Centre for Mathematical Sciences	4	8,212.10
18	Centre for Advanced Industrial Technology	2	7,800.32
TOTAL		170	1,615,481.85

List of Registered Technical Services in 2023

NO	DEPARTMENT	GROSS INCOME
1	Centre for Research in Advanced Fluid & Processes	55,755.70
2	Faculty of Industrial Sciences and Technology	73,436.80
3	Faculty of Civil Engineering Technology	40,195.20
4	Faculty of Chemical and Process Engineering Technology	18,285.00
5	Center for Advanced Intelligent Materials	1,166.00
6	Central Lab	227,326.80
TOTAL		416,165.50

10 REDUCED INEQUALITIES



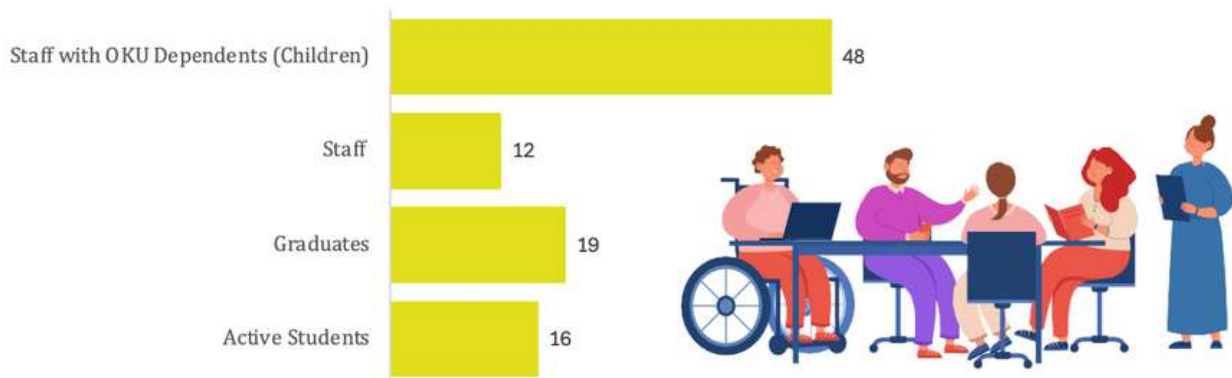
SDG 10: Reduce Inequalities

OKU Service Unit (OkUMPSA)

The OKU Service Unit (OkUMPSA) was established to provide services to the OKU community at UMPSA, including staff, students, and staff with OKU dependents, by creating an inclusive and conducive campus environment. Three authorities that approved the establishment of OkUMPSA are the 124th JKPU Meeting (Decision No. 9/2019) on December 15, 2019, the implementation of the MyU-OKU System Audit by the Ministry of Higher Education effective December 30, 2019, and the 139th JKPU Meeting (Decision No. 15/2020) on October 8, 2020.

OBJECTIVE	MAIN SERVICES
<ol style="list-style-type: none"> To create an inclusive and conducive environment for the OKU community at UMPSA. To optimize the potential and talents of the OKU community through a systematic integration package of rehabilitation and empowerment programs. To generate a distinguished, sustainable, and professional brand for the UMPSA OKU community through technological synergy for the broader community. 	<ol style="list-style-type: none"> Governance Teaching and Learning (PdP) and Career Campus Environment Accessibility and Connectivity Support Services

Statistics of the OkUMPSA Community for 2023



Awards for OkUMPSA

- OkUMPSA received an award for its success in empowering disability management within the organization through the Return to Work Coordinator (RTWC) initiative.
- UMPSPA is the first public university to introduce the Return to Work (RTW) program. The RTW program, organized by PERKESO, aims to safeguard employee welfare and was held on June 22, 2023, at the PERKESO Office in Kuantan.
- The objectives of the RTW program are:
 - To assist staff who experience disabilities due to injuries or prolonged health issues.
 - To improve staff work productivity through physical rehabilitation modules and therapy sessions.
 - To foster positive work morale and create a conducive work environment.

SDG 10: Reduce Inequalities

Community-Based Rehabilitation Program (PPDK DAMAi)

1. The UMPSA OKU Service Unit received an allocation of RM 1.6 million for the PPDK initiative from the Malaysian Ministry of Finance through the Ministry of Higher Education (KPT) on May 13, 2022.
2. UMPSA focuses on Inclusive Technology with the establishment of the OkUMPSA Studio: Digital OKU Hub (HaDO) and the i.K.M.A.L Module, in line with the implementation of the UMPSA Strategic Plan 2021-2025. This aligns with Strategic Objective 5B (3): A Healthy Human Resource, aimed at creating an inclusive and conducive OkUMPSA ecosystem.
3. The OkUMPSA Unit received studio equipment and Multi-Camera Production (MCP) from the supplier Idaman Prestij Sdn. Bhd. The installation of the equipment was fully completed on July 13, 2023.
4. A supervisor, a staff member, and several PPDK trainees have been appointed. PPDK DAMAi is fully operational at the OkUMPSA Studio located on Level 4, Pekan Library, and began its learning sessions on September 7, 2023.



Basic Sign Language Course



1. The Basic Sign Language Course is an initiative under Strategic Objective 5: Excellence in the University Ecosystem, aligned with Core 5B: Healthy and Talented Human Resources and 5B(3) MyU-OKU Score. This initiative falls under PPU 2A(2) for staff or students participating in industry-conducted technical training as part of the UMPSA Strategic Plan 2023-2025.
2. This course is a strategic collaboration between the UMPSA OKU Service Unit, the Human Resource Development Division (BPSM), and the Pahang Deaf Association (PADA).
3. The course was conducted from November 6 to 8, 2023 (Session 1) and from November 20 to 22, 2023 (Session 2) at the Computer Lab, UMPSA Pekan Library.
4. Each participant who completes this course will automatically become a KARIB OkUMPSA DAMAi (UMPASA OKU Volunteer).

Historical Dates for OkUMPSA in 2023



11 SUSTAINABLE CITIES AND COMMUNITIES





SDG 11: Sustainable Cities and Communities

Smart and Sustainable Campus

A smart campus represents the modernization of UMPSA's work processes to enhance services and operations through the intelligent provision and use of cutting-edge technology. Meanwhile, a sustainable campus refers to a campus that meets social needs, is developed and managed at a reasonable cost, and is compatible with the internal and external environment of UMPSA.

Smart Campus

UMPSA aims to become a smart campus, aligning with the government's recommendations to enhance the digital agenda in the country. This initiative is overseen by the Knowledge Management and Information Technology Department (JPPTM) at UMPSA. In line with the demands of the Fourth Industrial Revolution, the university must undergo digital transformation to remain relevant to current needs. A smart campus is an environment that provides efficient technology and infrastructure for delivering services to the entire UMPSA community. It also supports and enhances the processes of teaching, learning, and research.

VISION

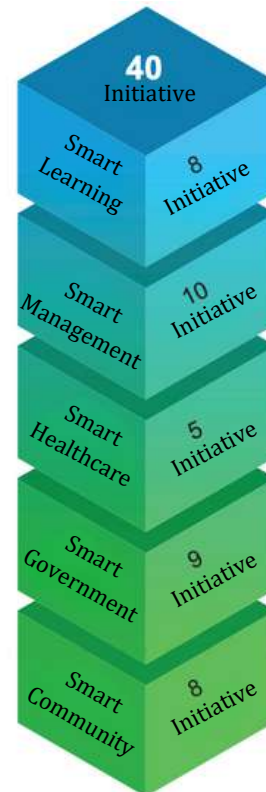
Creating a smart campus environment through design and technology that emphasizes quality of life, safety, and sustainability

MISSION

A smart campus also assists the campus community, including students and staff, by providing easy access to learning resources, campus services, and important information. The use of technology in teaching and learning enhances interactivity and creativity, while management systems ensure smooth operations in campus services



Smart Pillars and the Number of Initiatives for UMPSA Smart Campus



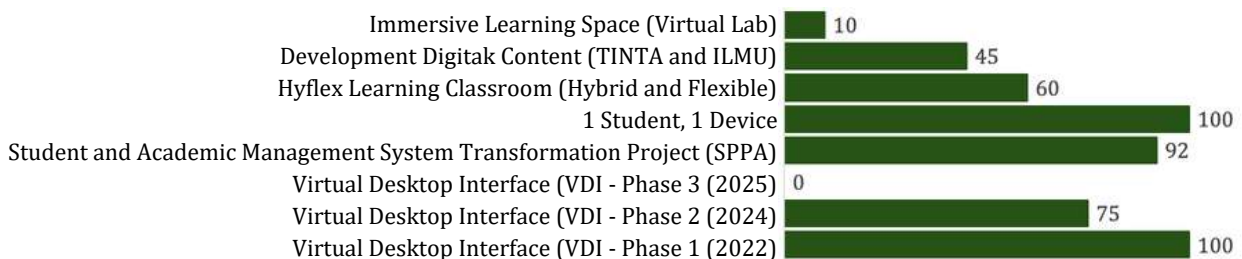
UMPSA has developed a smart campus blueprint for 2022-2025. The implementation of the smart campus at UMPSA is divided into five main scopes known as smart pillars. Each smart pillar is led by a champion to monitor the progress of initiatives under their respective smart pillar. The smart pillars are smart learning, smart management, smart healthcare, smart governance, and smart community. A total of 40 initiatives have been outlined for the UMPSA smart campus from 2022 to 2025.



Smart Learning

The first smart pillar is Smart Learning. Its aim is to enhance the learning process through the use of digital learning technologies, augmented reality, and virtual reality, along with providing improved application systems. There are eight initiatives within this smart pillar, of which two have been successfully implemented.

Progress of Smart Learning Initiatives in 2023

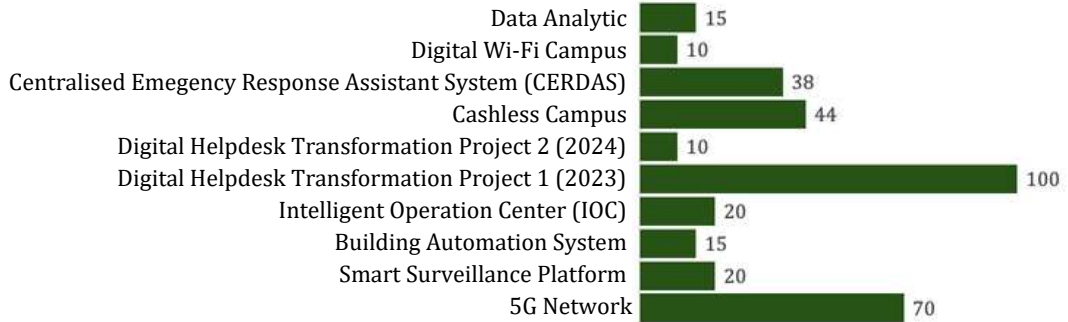




Smart Management

Smart Management introduces an integrated information management system to enhance the efficiency of university operations, including information access, security, resource usage, and analysis. The goal of Smart Management is to improve transparency, reliability, and efficiency in university management. There are ten initiatives under this smart pillar, of which two have been successfully implemented. In 2023, the Digital Wi-Fi Campus initiative, a high-impact project, was successfully launched and has benefited the campus community.

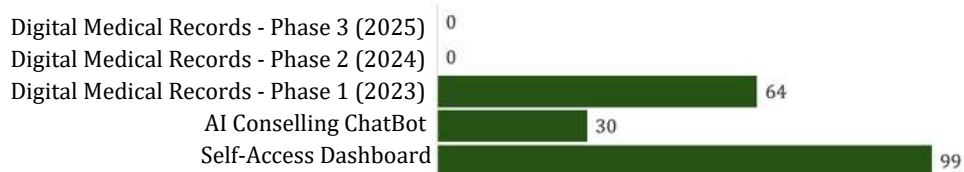
Progress of Smart Management Initiatives in 2023



Smart Healthcare

Smart Healthcare aims to provide effective health management and improve accessibility to health services through the development of a Digital Medical Record system and a self-access dashboard for self-monitoring health records. This initiative is designed to enhance the overall health management experience for students and staff, enabling them to easily access their health information and receive timely medical support.

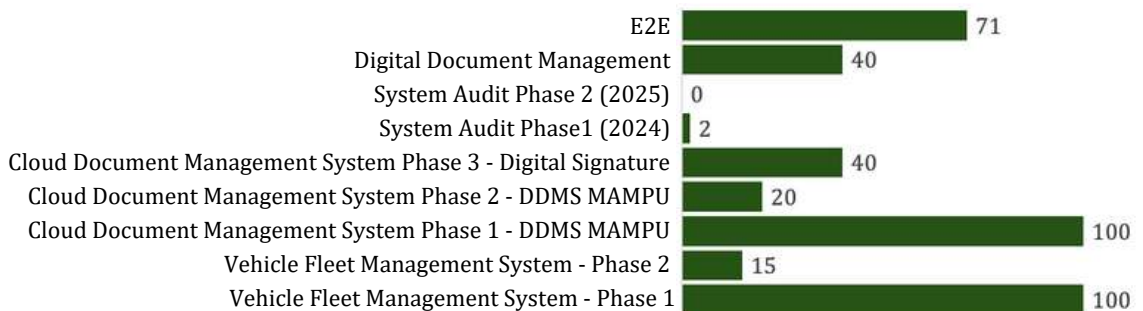
Progress of Smart Healthcare Initiatives in 2023



Smart Governance

Smart Governance aims to enhance efficiency in management and governance while improving transparency and accountability. There are nine initiatives under this pillar, with two successfully completed by the end of 2023. The completed initiatives are, Vehicle Fleet Management System (Phase 1) and Cloud Document Management System. Currently, there are six ongoing initiatives, with one new initiative set to begin in 2025.

Progress of Smart Governance Initiatives in 2023

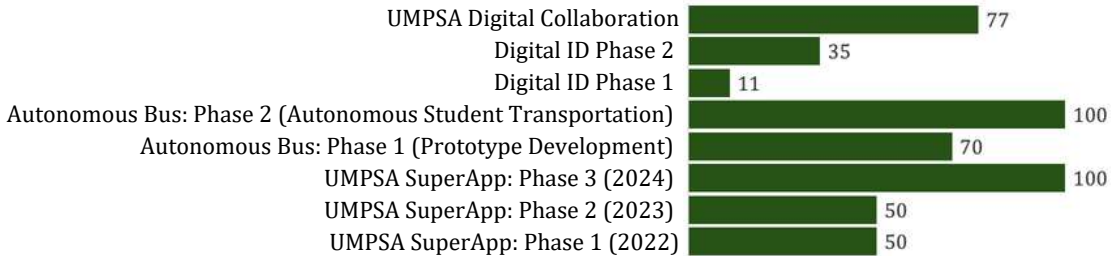




Smart Community

The final Smart Pillar is Smart Community, which provides a collaborative platform for the UMPSA community. The standardization of the email platform and the development of the UMPSA SuperApp are expected to add significant value, making it easier for the UMPSA community to access various university application systems.

Progress of Smart Community Initiatives in 2023

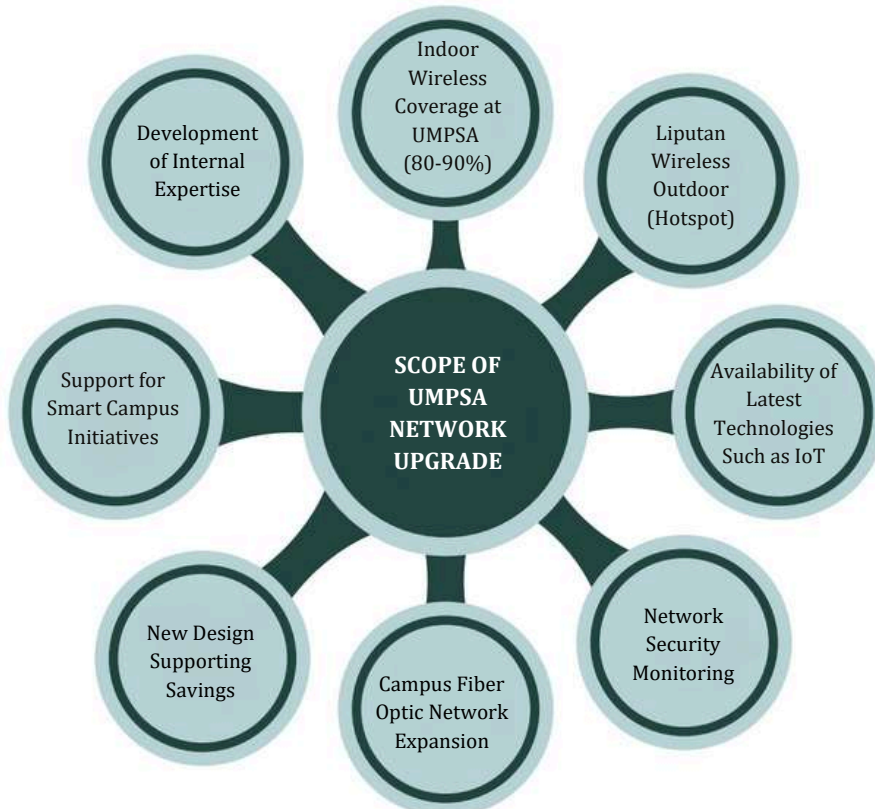


UMPSA Network Facilities

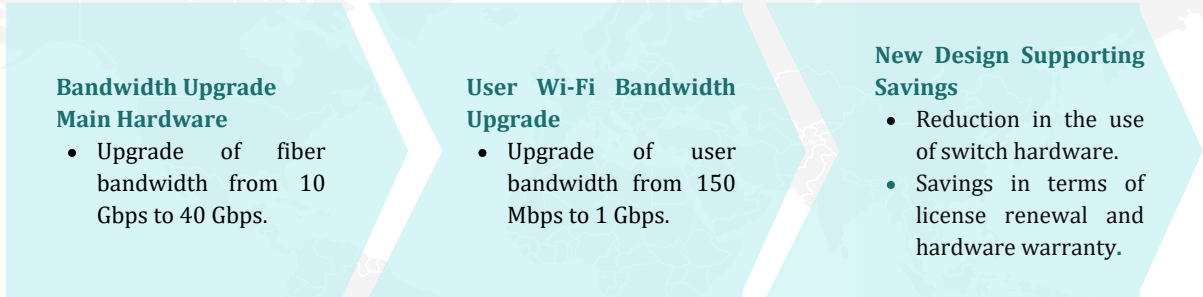
Network services at UMPSA, encompassing both wired and wireless networks, have been in use since 2003. These services are accessible to the entire UMPSA community, including staff, students, and third parties such as subsidiaries, cooperatives, uniformed bodies, and others. From 2018 to 2021, nearly 90% of UMPSA’s network hardware became obsolete, with no spare part support available from equipment manufacturers. The existing network technology at UMPSA lagged behind current requirements, which demand features like mobility, flexibility, automation, and intelligence.

The UMPSA Strategic Plan (UMPSA-25) under Strategic Objective 5: Excellence in University Ecosystem has identified the Smart Campus and Sustainable Campus as a key strategic pillar to be achieved. Therefore, the need to strengthen network infrastructure and wireless network facilities is crucial to support this pillar and is placed under the responsibility of the Digital Technology Center (DiTec). In November 2021, the funding application under the 12th Malaysia Plan (RMK-12) for ICT projects was approved by the Ministry of Higher Education. The implementation of UMPSA’s new network upgrade project was fully completed in September 2023.

Scope of UMPSA Network Upgrade



New Design for Broadband Enhancement and Supporting Savings



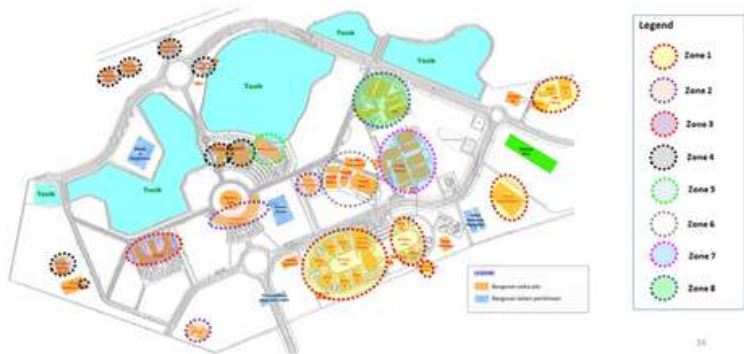
Comparison of Wi-Fi Coverage Before and After Upgrade at UMPSA Pekan

Wi-Fi Coverage Before Upgrade at UMPSA Pekan



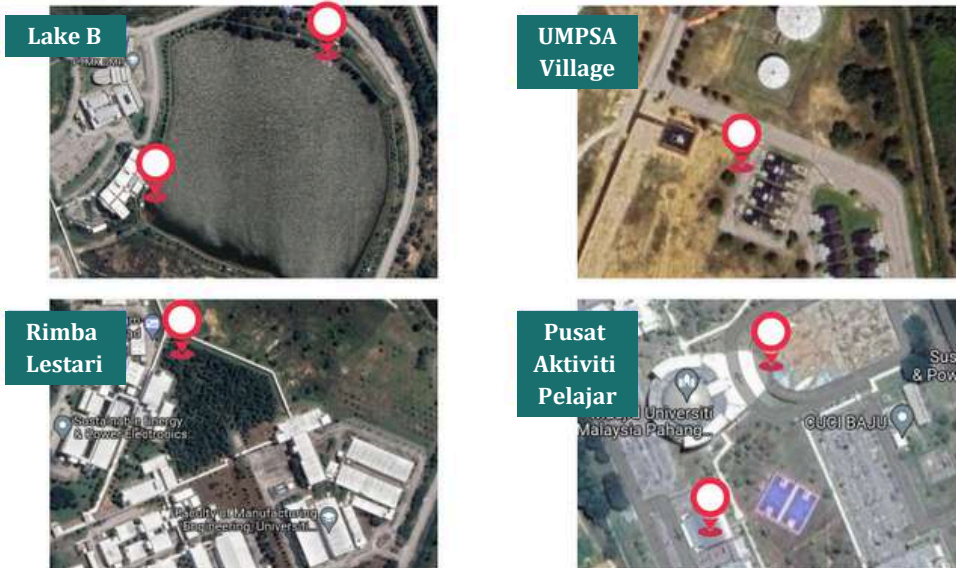
- 50% Wi-Fi Coverage in Residential Areas
- No Wi-Fi Coverage in Outdoor Areas

Wi-Fi Coverage After Upgrade at UMPSA Pekan



- 95% coverage in residential areas
- 10% coverage in outdoor areas

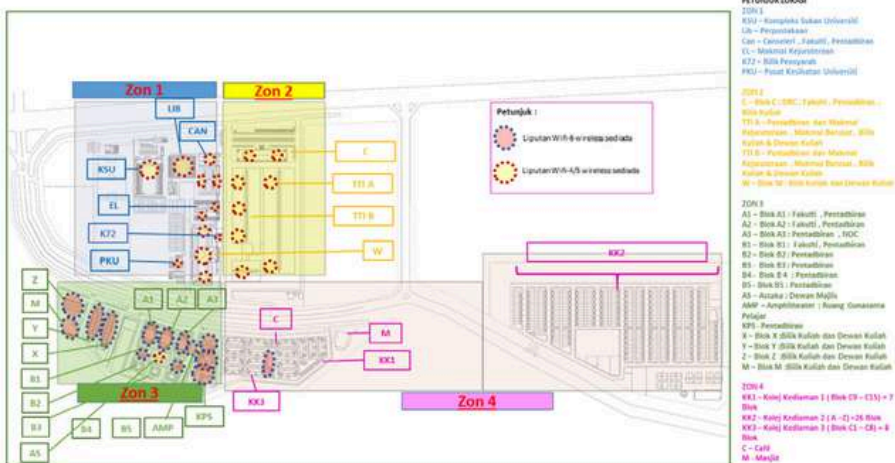
Outdoor Areas at UMPSA Pekan



- Support for wireless hotspot and IoT coverage for research and development projects at UMPSA
- Support for wireless hotspot at key locations for the UMPSA community

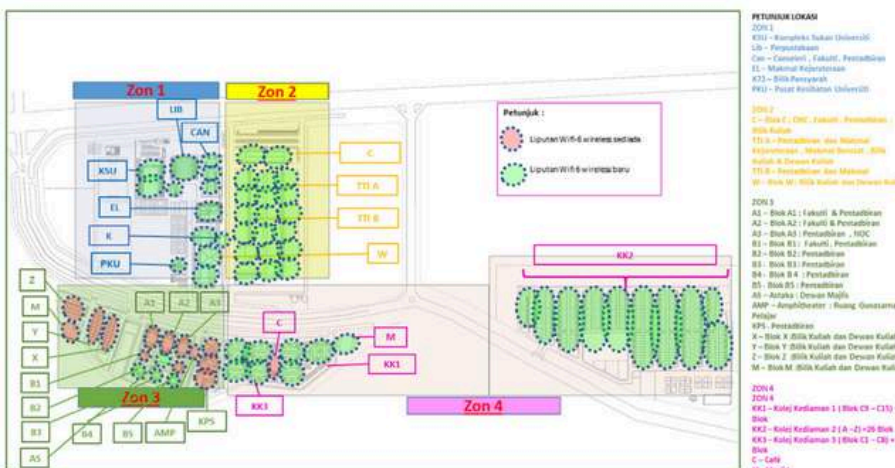
Comparison of Wi-Fi Coverage Before and After Upgrading at UMPSA Gambang Campus

Wi-Fi Coverage Before Upgrading at UMPSA Gambang Campus



- 40 percent Wi-Fi coverage in residential areas

Wi-Fi Coverage After Upgrading at UMPSA Gambang Campus



- 95 percent Wi-Fi coverage in populated areas

Network Upgrade Works at UMPSA Gombang Campus



Campus Planning and Development

List of Campus Development in 2023

NO	PROJECT	COMPLETION DATE
CAMPUS FACILITIES		
1	<p>Upgrade of OKU-Friendly Infrastructure</p> <p>The upgrade of OKU-friendly infrastructure was carried out in January 2022 and approved by the Ministry of Higher Education (KPT) on April 25, 2022. The upgrade locations involve the entire UMPSA Pekan area. The scope of work includes:</p> <ul style="list-style-type: none"> • Construction and provision of parking spaces, ramps, new toilets, and new OKU-friendly pathways; • Installation of new OKU parking signage; • Replacement of drainage covers; and • Construction of an OKU studio. 	<p>Phase 1 - January 12, 2023</p> <p>Phase 2 - May 31, 2023</p> <p>Phase 3 - August 22, 2023</p>
2	<p>Upgrading Works for Lecture Halls 1 and 2 at the Faculty of Electrical and Electronic Engineering Technology (FTKEE)</p> <p>The works include the replacement of acoustic panels, carpets, doors, and the lecturer's platform that were damaged due to termite infestation since June 2022. Additionally, the replacement of worn-out student chairs and lecturer tables, which have been in use since 2009, will take place. The lecture halls will also be equipped with new audio-visual systems and projectors.</p>	February 13, 2024
3	<p>Repair Works for Rainwater Splash Issues at the Faculty of Computing (FK)</p> <p>Improvements are being made to address rainwater splash issues in lecture rooms, lecture halls, lecturer offices, and office spaces. The works include the installation of awnings, rain shields on stairways, walls, and window sealing to reduce rainwater splash during the rainy and windy seasons, which disrupt the Teaching and Learning (PdP) process.</p>	March 12, 2024
4	<p>Construction of Sewage Treatment Plant</p> <p>Construction of a sewage treatment plant with a capacity of 15,000 PE, covering an area of 20,300 m². The facility includes a network pumping station, sewage pipe system, control house, and a sewer pipe network within the campus. It encompasses mechanical, electrical, infrastructure, and landscaping work.</p>	March 26, 2024

NO	PROJECT	COMPLETION DATE
CAMPUS FACILITIES		
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CAMPUS FACILITIES		
5	<p>Supply and Installation of Roller Blinds and Tinted Glass at the Faculty of Computing (FK)</p> <p>Improvement work to address glare issues in lecture rooms, lecture halls, and lecturer offices. Installation of roller blinds and tinted glass to reduce glare during midday and afternoon, which disrupts the teaching and learning process (PdP).</p>	March 26, 2024
6	<p>Construction of University Mosque and Center for Islamic and Human Development (PIMPIN)</p> <p>The construction involves three building blocks: one block for the mosque (with a capacity of 3,500 congregants) covering an area of 5,963 m², including M&E (mechanical and electrical) spaces, ablution areas, and circulation; and two blocks for PIMPIN offices with an area of 448 m², including M&E spaces, services, and circulation areas.</p>	June 1, 2024
7	<p>Replacement of the Security Office Roof</p> <p>Replacement of the existing roof due to leakage, including designing a new truss structure and performing the related architectural and electrical work.</p>	December 15, 2023
8	<p>Development of the Convocation Hall at Pekan Campus</p> <p>The development of a Convocation Hall covering an area of 8,530 m² at UMPSA Pekan includes the construction of the main hall, royal suite, and graduate facilities.</p>	Mac 2026
LANDSCAPE AND PLANTATION MANAGEMENT		
9	<p>Process of Deer Breed Exchange (Axis-Axis to Timorensis)</p>	
10	<p>Goose Pen Expansion Project</p> <ul style="list-style-type: none"> • Accommodates an additional 24 geese and future breeding. • Provides a more comfortable and safer space for the development of the raised geese. • More visitor-friendly. 	
11	<p>Coconut Plantation Project</p> <ul style="list-style-type: none"> • Seedlings of the SGG CN16 (Sungai Gulang-gulang) variety. • Capable of producing yields within three years. 	
12	<p>Community Forest Launch</p> <ul style="list-style-type: none"> • Planting of 200 saplings of high commercial value timber species. • Includes species such as meranti, tembaga, chengal, keruing kertas, merbau, balau pasir, keladan, and kulim. 	

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



SDG 12: Responsible Consumption and Production

UMPSA and UNITEN Explore Strategic Collaborations Related to Energy



The visit by the Universiti Malaysia Pahang Al-Sultan Abdullah (UMPSA) delegation to Universiti Tenaga Nasional (UNITEN) aimed to share expertise in establishing collaborations in academic fields, technology, and specialized knowledge, particularly in energy. The partnership also focuses on financial sustainability, industrial grants, smart campus initiatives, and greener campuses to achieve Environmental, Social, and Governance (ESG) goals, aligned with the Sustainable Development Goals (SDG).

As a university with niche expertise in energy, UNITEN is dedicated to research in energy transition, addressing climate change, sustainable development, and renewable energy sources both nationally and globally topics that greatly interest UMPSA. Additionally, UNITEN will establish the National Energy Center (NEC) as part of its proactive efforts to contribute the expertise of its researchers to the national development agenda. Through the establishment of this internationally recognized National Center of Excellence, five centers of excellence will be housed under the NEC, namely the Institute of Sustainable Energy (ISE), the Institute of Power Engineering (IPE), the Institute of Energy Infrastructure (IEI), the Institute of Energy Policy and Research (IEPRE), and the Institute of Informatics and Computing in Energy (IICE).

SDG 12: Responsible Consumption and Production

Beach Cleanup at Pantai Pelindung



Bachelor of Data Analytics students, and staff, participated in a beach cleanup at Pantai Pelindung, a popular spot for visitors. The program, organized in collaboration with the NGO Trash Hero Kuantan, successfully collected 213.3 kg of trash from the beach area.

The data collected from beach cleanup, along with data from collaborating agencies, will be analyzed to raise public awareness about the importance of environmental cleanliness. A report in the form of data visualizations will be created and shared on social media to enhance public understanding of the negative impact of uncontrolled waste disposal on our planet. This collaboration aims to use the power of data and visuals to drive awareness and inspire positive change regarding waste management.

A total of 65 UMPSA Kilau volunteers from the Center for Mathematical Sciences (PSM) at Universiti Malaysia Pahang Al-Sultan Abdullah (UMPSA), comprising Foundation students.

FTKA Organizes Pantai Cherating Clean-Up & Brisk Walk

FTKA spearheaded a successful Brisk Walk & Cleaning Program at Pantai Cherating. Community members joined forces, combining fitness with environmental stewardship for a cleaner coastline. FTKA's commitment to community well-being shines through such impactful initiatives.



Kilau UMPSA Volunteers Join Initiative to Plant 1,000 Rhu Trees

A total of 65 Kilau Volunteers of Universiti Malaysia Pahang Al-Sultan Abdullah (UMPSA) participated in the Coastal Cleaning and Tree Planting Programme in conjunction with the Pahang Radio Televisyen Malaysia (RTM) World Radio Day celebration with the initiative of planting 1,000 rhu trees in Pantai Kempadang, Kuantan.

The programme was officiated by the Director General of Broadcasting, Radio Televisyen Malaysia, Suhaimi Sulaiman and Radio Program Division Director of the Department of Broadcasting Malaysia, Nor'ain Bakir.

13 CLIMATE ACTION





SDG 13: Climate Action


Projek Alam UMPSA

Projek Alam UMPSA is a campus greening initiative involving tree planting, forest area development, and the preservation of open spaces with natural vegetation. This initiative has contributed to 27.5 percent of the campus area being designated as green space.

The project also promotes and enhances the practice of sustainability at the UMPSA campus, in line with the objectives of Sustainable Development Goal 13 (SDG13), which relates to taking action to combat climate change and its impacts.

UMW UMPSA ***Pucuk Hijau Initiative***

This program is part of UMW's Green Shoots Initiative (UGS) to plant 300,000 mangrove trees by 2023. This initiative is a step toward environmental sustainability and supports the Malaysian government's mission to achieve 100 percent carbon neutrality by 2050, as outlined in the 12th Malaysia Plan.



Serial 1 on 13 May 2023

Serial 2 on 18 August 2023

Serial 3 on 25 November 2023

SDG 13: Climate Action

UMPSA has launched eight Campus Sustainability Initiative Campaigns



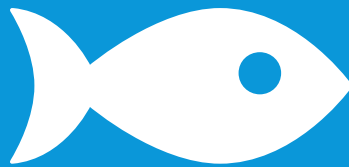
Universiti Malaysia Pahang Al-Sultan Abdullah (UMPSA) has launched eight Sustainability Initiative Campaigns to raise awareness among its community about environmental conservation, in line with the university's vision of becoming a Sustainable Campus. These campaigns aim to encourage eco-friendly practices and behaviors, fostering a culture of sustainability within the university. Through these efforts, UMPSA is working towards creating a greener campus environment and contributing to broader environmental goals, reinforcing its commitment to sustainability in education and operations.

The eight Sustainability Initiative Campaigns launched by Universiti Malaysia Pahang Al-Sultan Abdullah (UMPSA) include:

1. Drink Plain Water and Bring Your Own Bottle
2. *Jom Tapau*: Bring Your Own Container
3. Greening the Environment
4. UMPSA Recycling Day: Reducing Waste
5. One Step at a Time
6. Healthy Lifestyle: Choose Well-being Every Day
7. Organic Waste Separation: Composting for a Greener Future
8. Go Green: Turn Your Waste into Sustainable Resources
9. Carbon-Free Vehicles: Sustainable Practices on the Road

These campaigns aim to encourage the UMPSA community to adopt more sustainable habits and contribute to the university's goal of becoming a greener campus.

14 LIFE BELOW WATER



SDG 14: Life Below Water

River Water Quality Carrying Capacity of Sg Muar Basin Catchment

Rapid development has led to a large discharge of point source (PS) and nonpoint source (NPS) pollution into the water resource. As a result, the deterioration in water quality, a decline in safe water supply, and the difficulties in accessing clean water have emerged as massive concerns for water authorities attempting to fulfill the increasing supply of clean water resources. WQI has been used as a practical technique in Malaysia. The Department of Environment (DOE) has advised using WQI for ranking (good, medium, or bad), as well as reflecting the pollution condition of the water resource.

However, it is taught that the Malaysia Water Quality Index (WQI) indicator falls short of accurately reflecting the pollution in river water and that relying solely on WQI standalone will not be sufficient to combat river pollution because it cannot demonstrate the river's resilience to ingest pollutants. Therefore to manage the water quality of from water resources, additional methods need employ in order to extend our understanding of the condition of our water resources, such as evaluating the carrying capacity of rivers or waste assimilative capacity (WAC), the maximum loading that a body of water can withstand without seriously compromising its current high quality.

In this study, the river's carrying capacity of Sg Muar will be assessed. The inventory of point source (PS) and non-point source (NPS) within the Sg Muar basin will be conducted in prior. The loading discharges from these sources into the Sg Muar will be estimated by using XPSWMM. Meanwhile, the historical water quality data of the river will be used to simulate the river's carrying capacity by using QUAL2K. Later, the approach of TMDL is introduced when the estimated loading discharges are included in the simulation of the Sg Muar River's carrying capacity for two scenarios; high flow and low flow periods.

Finally, the limits of pollutants permitted to enter the river will be able to generate and this is known as TMDL. It is believed that these findings would assist the decision makers/state government to decide action plans to mitigate the heart of the basin.

The tributaries of Muar River Basin



SDG 14: Life Below Water

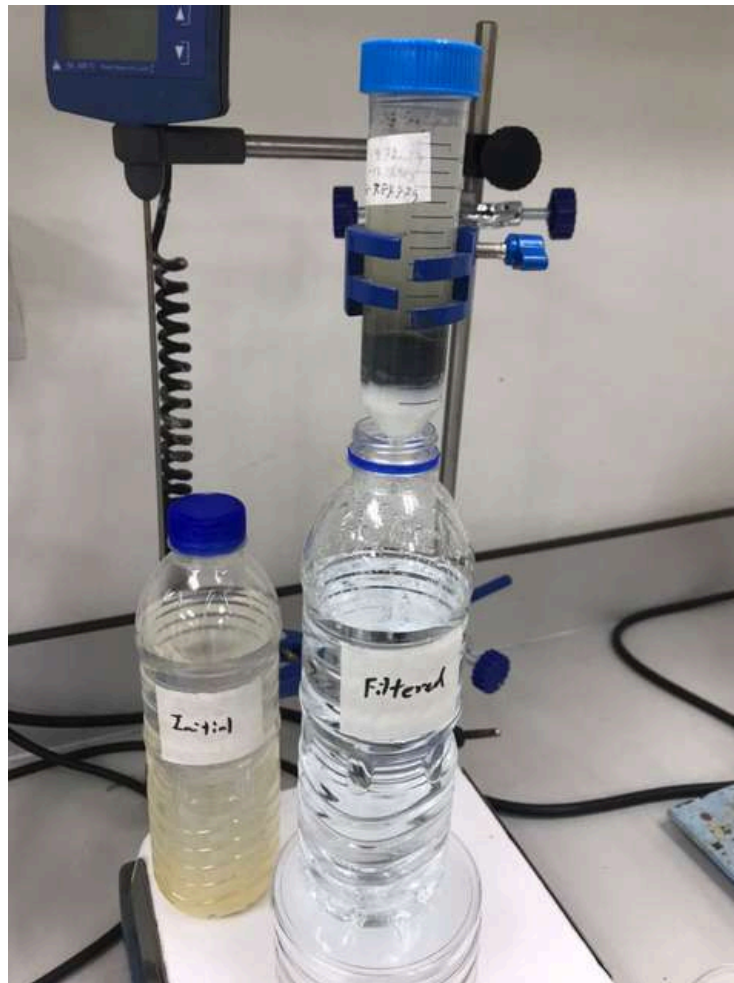
River Water Quality Carrying Capacity of Sg Muar Basin Catchment

Clean water attracts global attention as the safe drinking water is considered as one of the basic human needs. It is also stated in the UN Sustainable Development Goals (SDG 6). Various approaches have been adopted to achieve this goal and utilizing adsorbent for water pollutants is the most direct way for water treatment.

Graphene aerogel has recently been identified as potential adsorbent for effective water pollutants due to its large surface area and high ions affinity. However, the GO precursor is yet to be studied for the adsorption optimization. In this research the sheets size of GO precursor for graphene aerogel is to be investigated for the optimum adsorption of different pollutants. It is hypothesized that GO with different sheet sizes possesses different affinity towards different molecules. GO with different sheet sizes will be produced by different sonication times and their sheets size will be correlated to the sonication time. Graphene aerogel will then be produced from GO with different sheet sizes and their physicochemical properties will be investigated. Subsequently, the adsorption performance of graphene aerogel will be tested by different organic pollutants and heavy metal ions. It is expected that smaller sheets size in graphene aerogel possesses higher oxygen functionalities which can attract more heavy metal ions. Meanwhile, larger sheets size in graphene aerogel could have higher non-polar surface area that could attract more non-polar organic pollutants.

The findings of this research can be an important benchmark for utilizing of graphene aerogel in water treatment with different pollutants.

Water sample after going through treatment process



15 LIFE ON LAND





SDG 15: Life on Land

Program Alam@ UMPSA

Program Alam @ UMPSA is an initiative to raise awareness about environmental conservation with the local community. This initiative is a collaboration between UMPSA, government agencies, and the private sector to implement tree planting and reforestation efforts from 2022 to 2025. The objective of the program is to:

- Establishing collaboration with government and private agencies to ensure that environmental conservation becomes a key agenda for the involved agencies.
- Ensuring environmental sustainability and human health.
- Beautifying and enhancing the aesthetic value of an area, where trees provide shade and reduce air and noise pollution in urban areas, while also acting as carbon-absorbing agents.
- Training volunteers to be involved in consistently striving to protect the environment.

Community Forest

The new Community Forest site, covering 6.7 acres, is one of UMPSA's campus greening locations, in addition to the Sustainable Forest, a collaborative project between UMPSA and the Forest Research Institute Malaysia (FRIM). UMPSA Pekan also has several other campus greening locations, including the Bioaromatic Arboretum, UMPSA Orchard, Nadir Plant Area, Scholar's Square, Recreational Lake, and Wetland Lake. In this regard, UMPSA will continue its collaboration with the Peninsular Malaysia Forestry Department and the Pahang State Forestry Department, which will supply a total of 800 saplings of various forest tree species identified as suitable for the environment and soil in the Community Forest area. Among the tree species to be planted are Copperleaf Mahogany, Paperbark Keruing, Sand Balau, Keladan, Merbau, Chengal, and Kulim seedlings. During the launch of the Community Forest, 200 saplings have already been successfully planted, and the remaining saplings will be received in several planting sessions scheduled for the upcoming year.

SDG 15: Life on Land

Program Alam@UMPSA

In recognizing the importance of environmental awareness, UMPSA Kilau volunteers from Universiti Malaysia Pahang Al-Sultan Abdullah (UMPSA) and the indigenous community of Kampung Orang Asli (KOA), Chenan Cherah, Cameron Highlands, successfully carried out the Alam@UMPSA and 'Bersama Kasih' Community Service program by planting trees with the local society.

During the program, 320 herbal saplings of Tongkat Ali and Kacip Fatimah donated by the Department of Agriculture were planted to create a Herbal Garden



as part of supporting the Income Initiative Program (Basmis Miskin Tegar) approved by the Ministry of Economy. Additionally, the Cameron Highlands Forestry Office contributed 250 saplings, which were distributed to the head of each household.

Also taking place was a communal activity (gotong-royong) with the Cameron Highlands Islamic Religious Office, where participants prepared lunch together. There were also activities with the children, including games, a fun sports event, and the 'Fun Science' project aimed at sparking their interest in STEM (Science, Technology, Engineering, and Mathematics) among young generations.



SDG 15: Life on Land

Alam@UMPSA Program In Collaboration With Next Green Pulp & Paper Sdn. Bhd., Kampung Gumum, Chini

Kampung Gumum is one of the Jakun Orang Asli settlements located in the Tasik Chini area in the district of Pekan, Pahang, Malaysia. This Orang Asli settlement has a primary school, Sekolah Kebangsaan Tasik Cini. Kampung Gumum serves as the main village for the Orang Asli community in Tasik Chini, with a population of approximately 400 people.

The Alam@UMPSA program in Kampung Gumum, Tasik Chini, which involves the planting of 500 trees, is indeed part of a larger initiative under the Malaysia Greening Program through the 100 Million Tree Planting Campaign, which runs from 2021 to 2025. This campaign aims to restore and preserve the environment by increasing green areas through the planting of various local tree species.

This initiative is also an ongoing effort by various parties, including universities like Universiti Malaysia Pahang Al-Sultan Abdullah (UMPSA), local communities, private companies, and government departments such as the Forestry Department.

Alam@UMPSA Program in 2023

NO	PROGRAM	VENUE	DATE	PARTICIPANT
1	Program Inisiatif Pucuk Hijau UMP_UMW	Cherating Pahang	May 13, 2023	200 volunteers: UMPSA Staff, students & UMW staff
2	Pembersihan Pantai	Pantai Pelindung Kuantan	May 13, 2023	65 volunteers: UMPSA Staff & Trash Hero Kuantan (NGO)
3	Program Alam @ UMP 2023/1	Tasik Chini Pekan	June 6, 2023	60 volunteers: UMPSA Staff, Next Green (Industri) & Forestry Department
4	Program Alam @ UMP 2023/2	KOA Chenan Cherah, Cameron Highlands	23 & 24 Jun 2023	100 volunteers: UMPSA Staff, Jforestry Department, JDepartment of Agriculture, Youth Council & Cameron Land and District Office
5	Program Alam @ UMP 2023/3	Tasik Chini Pekan	13 Julai 2023	60 volunteers: UMPSA staff, Next Green (Industri) & Forestry Department
6	Program Alam @ UMP 2023/4	Tasik Chini Pekan	26 Oktober 2023	100 volunteers: UMPSA Staff, Next Green (Industri) & Jabatan Perhutanan
7	Voluntourism Program with MOTEC	Sungai Ular, Kuantan	November 18, 2023	40 volunteers: UMPSA Staff, MOTAC, Alam Flora dan Maritim
8	Program Alam @ UMP 2023/5	Hutan Simpan Chini	13 Disember 2023	40 volunteers: UMPSA Staff, UKM, DRB Hicom University & Jforestry Department
9	Community Forest Launching Ceremony	Rimba Komuniti, UMPSA Pekan	22 Disember 2023	100 Volunteers: UMPSA Staff (Kilau)

Volunteers at Alam@UMPSA Program at Kg. Gumum



16 PEACE, JUSTICE AND STRONG INSTITUTIONS





SDG 16: Peace, Justice and Strong Institution

Legislation

Universiti Malaysia Pahang Al-Sultan Abdullah (UMPSA) aims to promote peaceful and inclusive societies, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels.

List of Legal Department Programs for 2023

NO.	PROGRAM	DATE	LOCATION
1	<p>Briefing on the Responsibilities and Roles of Public Officers (Code of Conduct and Disciplinary Procedures – Commitment) Mind Transformation Program Series 1/2023.</p> <p>Legal Advisor, Marlina Mamat, has been appointed as the speaker for the slot on the Responsibilities and Roles of Public Officers (Code of Conduct and Disciplinary Procedures), aimed at raising staff awareness of the importance of conduct and personal ethics as employees.</p>	March 3, 2023	Online
2	<p>Intellectual Property and the Importance of Its Protection – Design and Innovation Competition (CITREX).</p> <p>The objective of the program is to provide participants with exposure to the types of intellectual property protection available under Malaysian law. The program was attended by Legal Officer, Nur Shafiq Abdul Jamil.</p>	March 14, 2023	UMPSA Gambang Campus

SDG 16: Peace, Justice and Strong Institution

NO.	PROGRAM	DATE	LOCATION
3	<p>Workshop of the Integrity Officers Council (MPI) and the Legal Advisors Council (MPUU): Act 605.</p> <p>The workshop was attended by Legal Advisor, Marlina Mamat, and Legal Officer, Muhammad Nadzmi Puaad, to discuss the guidelines of Section 8 of Act 605 and the issues of conflicts of interest occurring in the investigation functions and disciplinary functions at certain public universities (UA).</p>	June 5 to 7, 2023	UTM Hotel & Residence Kuala Lumpur (UTMKL)
4	<p>Workshop on Student Disciplinary Management and MATDUM Meeting No. 1/2023.</p> <p>The workshop was organized by Universiti Sultan Zainal Abidin (UniSZA) and attended by Legal Officer, Muhammad Nadzmi Puaad, who discussed the procedures and protocols for student disciplinary tribunals in Malaysian public universities (UA), as well as the management and handling of case related to disciplinary issues involving students.</p>	June 15 to 17, 2023	The Pines, Melaka
5	<p>Briefing on Student Disciplinary Procedures for the July 2023/2024 Orientation.</p> <p>Legal Officer, Muhammad Nadzmi Puaad, was appointed as the speaker for the briefing on disciplinary procedures for new diploma students in the 2023/2024 intake session. The objective of the briefing is to raise students' awareness of the laws and disciplinary regulations in force at UMPSA.</p>	July 23, 2023	UMPSA Gambang Campus
6	<p>Comprehensive Course on Government Procurement, Tender Processes, and Quotation 2023.</p> <p>The workshop was attended by Legal Officers, Nur Shafiqah Abdul Jamil and Muhammad Nadzmi Puaad, with the aim of clearly explaining the tender and quotation processes, as well as the salient clauses that need to be included in a procurement contract.</p>	July 24 to 25, 2023	Ibis Hotel KLCC, Kuala Lumpur
7	<p>Workshop and Training Session on Legal Matters Related to Contract Management for Study Leave in Public Universities (UA).</p> <p>This workshop, attended by Legal Officers Nur Shafiqah Abdul Jamil and Muhammad Nadzmi Puaad, aims to discuss and establish guidelines for managing cases of study leave contract breaches.</p>	August 3 to 5, 2023	Corus Hotel, Kuala Lumpur
8	<p>National Seminar: The Integrity of the Federal Constitution as a Catalyst for National Identity.</p> <p>This seminar, attended by Legal Officers Nur Shafiqah Abdul Jamil and Muhammad Nadzmi Puaad, is based on the importance of the Federal Constitution of Malaysia and aims to foster a sense of national identity.</p>	August 28, 2023	INTAN East Regional Campus, Terengganu.
9	<p>E-Warta Workshop.</p> <p>The workshop, attended by Legal Officer Nur Shafiqah Abdul Jamil, is based on the objective of providing an understanding of the basic concepts in the drafting of bills and subsidiary legislation.</p>	September 5 to 6, 2023	Attorney General's Chambers, Putrajaya
10	<p>Coordination Workshop on Enforcement Actions for the SLAB/SLAI Program KPT with Public Universities (UA).</p> <p>The objective of this workshop organized by the Ministry of Higher Education (KPT) is to study the implementation methods for the collection of debts related to breaches of study leave contracts at public universities (UA) and the terms that have been used in the documentation and contract agreements.</p>	September 21 to 23, 2023	Grand Puteri Hotel, Terengganu

SDG 16: Peace, Justice and Strong Institution

NO.	PROGRAM	DATE	LOCATION
11	<p>Service Briefing (Disciplinary Procedures) for the 2023/2024 Student Induction Week.</p> <ul style="list-style-type: none"> - Legal Officers Muhammad Nadzmi Puaad and Nur Shafiqah Abdul Jamil have been appointed as speakers for the Disciplinary Procedures briefing for new Bachelor's degree students in the 2023/2024 intake session. - The main purpose of this briefing is to educate students about the importance of the laws and disciplinary regulations in force at UMPSA. 	October 1, 2023	UMPSA Pekan dan UMPSA Gambang Campus
12	<p>Sexual Harassment Forum: Are Students Aware and Concerned?</p> <p>Legal Officer Muhammad Nadzmi Puaad has been appointed as one of the panelists for the forum to provide insights from a legal and disciplinary perspective regarding cases of sexual harassment among students.</p>	December 15, 2023	UMPSA Gambang Campus
13	<p>Meeting and Retreat of the Public Universities Legal Advisors Council No. 2/2023.</p> <ul style="list-style-type: none"> - The main objective of the meeting is to inform and discuss the latest laws, regulations, and guidelines, particularly regarding disciplinary matters and contract breaches. - In addition, a benchmarking visit was conducted at Singapore Management University to learn about legal governance and best management practices through presentation sessions and sharing. - The meeting was attended by Legal Advisor Marlina Mamat and Legal Officers Nur Shafiqah Abdul Jamil, Muhammad Nadzmi Puaad, and Nurhuda Yasmin Zulkifli. 	December 17 to 20, 2023	Hotel Thistle, Johor Bahru dan Singapura

List of Integrity and Compliance Unit Programs for 2023

NO.	PROGRAM	DATE
1	<p>Resolution on the Integrity Principles in Public Universities</p> <p>This resolution is a follow-up to the workshop session organized by the Public Universities Integrity Officers Council (MPIUA). MPIUA has proposed several resolutions that need to be implemented and enforced to address the challenges and constraints faced by the Integrity and Compliance Unit in managing and executing all integrity functions in UA.</p>	February 9, 2023
2	<p>Workshop and Basic Course on Internal Investigation at UMPSA</p> <p>This workshop is held to assist Investigating Officers in conducting investigations that are not limited to misconduct but can also be used to investigate all types of allegations of misconduct and ethical violations, covering disciplinary issues, non-disciplinary issues, or any criminal offenses, including but not limited to academic activities such as teaching, research, publication, and/or administrative misconduct.</p>	March 20, 2023
3	<p>Coordination Workshop of the Public Universities Legal Officers Council (UA) and the Public Universities Integrity Officers Council</p> <p>This workshop is also an effort for an approach and sharing regarding the procedures for managing staff discipline involving elements of regulatory violations and the consequences of violations based on the Statutory Bodies (Discipline and Penalty) Act, known as Act 605.</p> <p>The objective of this course is designed to provide a deep understanding of the applicable law, namely Act 605, by examining real issues related to cases occurring in public universities. It also enlightens the roles and responsibilities of Integrity Officers and Legal Officers in disciplinary management, techniques for managing, and implementing disciplinary actions based on current issues, especially cases that have been challenged in court.</p>	June 5 to 7, 2023
4	<p>UMPSA Corruption-Free Pledge Ceremony</p> <p>This ceremony is held in response to the government's efforts to combat corruption within an organization. UMPSA's efforts are also in line with the aspirations of Section 17A of the Malaysian Anti-Corruption Commission Act 2009, which places liability on a commercial organization if there is evidence that its employees are involved in corrupt activities.</p>	August 10, 2023

SDG 16: Peace, Justice and Strong Institution

NO.	PROGRAM	DATE
5	<p>Webinar: Integrity and Accountability</p> <p>This webinar aims to expose UMPSA staff to the importance of being an officer with integrity and accountability in an organization, as well as instilling honesty, trustworthiness, and responsibility when carrying out their tasks.</p>	August 30, 2023
6	<p>Moot Trial Program with Students for the Integrity and Anti-Corruption Course (KIAR)</p> <p>This Moot Trial program is a collaboration between the Integrity and Compliance Unit of UMPSA and the Centre for Humanities Science (PSK). The Integrity and Anti-Corruption Course is an elective subject introduced to university students.</p> <p>This program only involves modules related to corporate liability under Section 17A of the Malaysian Anti-Corruption Commission Act 2009. By simulating courtroom situations, it enhances students' understanding of the meaning and requirements of Section 17A.</p>	September 12, 2023
7	<p>ADFIM Conference on Integrity and Governance</p> <p>This conference features several prominent figures from various sectors, including public, private, and corporate sectors, to discuss and share experiences regarding highly relevant topics and issues today related to integrity and good governance.</p>	October 4 to 5, 2023
8	<p>Induction Program for the Premier Fellow and Corporate@UMPSA Protege 2.0</p> <p>The objective of this program is to provide exposure and explanation to new protege officers regarding the administrative system, key procedures, directives, circulars, and guidelines in force at UMPSA. It includes aspects of governance management, human resource management, financial management, and related functions. New officers are also exposed to the core values that guide UMPSA staff in fulfilling their responsibilities while serving at UMPSA.</p>	October 5, 2023
9	<p>Workshop on Disciplinary Management in Public Universities (UA)</p> <ul style="list-style-type: none"> - Introduction to Disciplinary Management and Background of the Statutory Bodies (Discipline and Penalty) Act 2000 [Act 605]; - Ordinary disciplinary procedures, procedures for absences that can be traced, and procedures for absences that cannot be traced; - Work suspension orders, job suspensions, criminal convictions, and detention order procedures, appeal procedures, and penalties; - Disciplinary penalties and the implications of disciplinary actions on service; and; - Termination of service in the public interest, resignation, and separation policies. 	October 11 to 13, 2023
10	<p>Engagement Session of the Public Universities Integrity Officers Council (UA) and the Agency Integrity Management Division (BPIA), and the Malaysian Anti-Corruption Commission (MACC)</p> <p>This engagement session focuses on several key agendas, including the placement issues of the UA Integrity Unit, UA risk rating and the reporting issues of the Agency Integrity Management System (AIMS).</p>	November 7, 2023
11	<p>Webinar: National Integrity Day, Corporate Liability: Supporting Well-Being</p> <p>This webinar is held in conjunction with National Integrity Day to provide exposure regarding corporate liability under Section 17A of the Malaysian Anti-Corruption Commission Act 2009, to enhance understanding of the meaning and requirements of Section 17A.</p>	November 29, 2023
12	<p>Webinar Collaboration between the Integrity Unit and the Well-Being Centre: Sexual Harassment from a Psychological Perspective</p> <p>Sexual harassment is one of the issues most reported to the Integrity Unit in most UAs. This explanation will provide clearer understanding to staff about the forms of sexual harassment that may exist, helping to prevent staff from becoming involved in such issues either as victims or perpetrators.</p>	December 8, 2023
13	<p>Visit to the Pahang Zakat Collection Centre (PKZ)</p> <p>This visit was organized by PKZ to gain insight into the operational processes of the Integrity and Compliance Unit at UMPSA. Knowledge sharing was conducted regarding the operations of the Integrity and Compliance Unit and further exposure regarding the functions of an integrity unit in public universities in general.</p>	December 20, 2023

SDG 16: Peace, Justice and Strong Institution

International Ranking and Rating



QS Stars University Ratings Excellent Award

5-Stars Rating in:

- Teaching
- Internationalisation
- Facilities
- Innovation
- Employability
- Research
- Engineering – Mechanical

Quacquarelli Symonds (QS) Asia University Rankings

Ranked #153 in Asia

QS World University Rankings by Subject

- Engineering & Technology: Ranked #451-500 in World
- Engineering – Chemical: Ranked #201-250 in World
- Engineering – Mechanical, Aeronautical & Manufacturing: Ranked #301-350 in World
- Chemistry: Ranked #451-500 in World
- Material Science: Ranked #351-400 in World
- Engineering – Electrical & Electronic: Ranked #351-400 in World
- Computer Sciences & Information Systems: Ranked #651-680 in World

THE World University Rankings

Ranked #801-1000 in World

THE World University Rankings Asia

Ranked #801-1000 in world

Quacquarelli Symonds (QS) World University Rankings

Ranked #781-790 in World

Times Higher Education (THE) Impact Rankings

Ranked #201-300 in World

THE World University Rankings by Subject

- Business and Economics: Ranked #301-400
- Computer Science: Ranked #401-500
- Physical Sciences: Ranked #501-600
- Engineering: Ranked #601-800

Malaysia Research Assessment (MyRA)

5 Stars Rating

MyMohes Ratings

5 Stars Rating

SETARA Ratings

5 Stars Rating

Times Higher Education (THE) Young World University Rankings

Ranked # 201- 250 in World

US News and World Report Best Global University Rankings

Ranked #992 in world

UI Green Metric World University Ranking

Ranked #103

QS World University Rankings Sustainability

Ranked #565 in World

Best Global University Rankings by Subjects

- Energy & Fuel: Ranked #161 in World
- Chemical Engineering: Ranked #201 in World
- Engineering: Ranked #256 in World
- Materials Science: Ranked #634 in World
- Chemistry: Ranked #637 in World

17 PARTNERSHIPS FOR THE GOALS





SDG 17: Partnership for the Goals

International Community Service Network

The first core focus is on strengthening the network between UMPSA and the international community. Through this network, initiatives for students to participate in mobility programs, industrial training, and work abroad will be easier to implement.



Confucius Institute (CI) UMPSA Internationally Recognized for Offering Mandarin Learning for the Benefit of the Community

The organization of the Joint Conference of Southeast Asian Confucius Institutes 2023 successfully gathered 300 CI representatives from ten Southeast Asian countries in Beijing, China, on July 21, 2023. The President of the Chinese International Education Foundation, China, expressed hope that the CIs in Southeast Asia could strengthen development involving CIs with university and community development through collaboration between CIs, while also promoting Mandarin TVET in line with global CI development trends.

Internationalization of Graduates

The second core of this strategic objective focuses on the internationalization of graduates. This core is a follow-up activity to the industry and international community networks established through the first core. The internationalization of graduates will be driven by mobility programs and industrial training for UMPSA students at companies or agencies abroad. This will further assist UMPSA graduates in securing employment overseas.

SDG 17: Partnership for the Goals

Empowerment of the Internationalization Agenda

UMPSA has further strengthened its brand at the international level through the empowerment of an inclusive Internationalization Agenda with various impactful strategies and initiatives in 2023. Meaningful and strategic new partnerships have been achieved through the signing of Memoranda of Understanding (MoU) and Memoranda of Agreement (MoA) with various international higher education institutions, in addition to exploring new collaboration opportunities by participating in several international conferences.

List of International Conference Participation and Official Work Visits



Details of International Strategic Cooperation Agreements for the Year 2023



Official Work Visit to the Islamic Republic of Iran in Conjunction with the Official Visit of the Honourable Minister of Higher Education from 7 to 10 October 2023 in the Islamic Republic of Iran



SDG 17: Partnership for the Goals

List of International Strategic Cooperation Agreements for the Year 2023

Memorandum of Understanding

India

PSGR Krishnammal College for Women

Jepun

Setsunan University

Taiwan

Ming Chi University of Technology

Iran

Islamic Azad University of Isfahan, D-8 International University, Isfahan University

Turkiye

Middle East Technical University

Malaysia

Energy Storage Rights PTY LTD

Indonesia

Universitas Telkom, Universitas Tarumanagara (UNTAR), Universitas Islam Raden Ahmad (UNIRA), Universitas Pembangunan Panca Budi Medan, Universitas Katolik Santo Thomas (UST) Medan, Universitas Budi Luhur (UBL), Universitas Islam Negeri (UIN) Sunan Kalijaga Yogyakarta, Politeknik Negeri Jakarta (PNJ), Politeknik Negeri Banyuwangi (POLIWANGI) Universitas Pembangunan Nasional 'Veteran' Jawa Timur (UPNVJT), Universitas Andalas (UNAND), Universitas Negeri Padang (UNP), and Universitas Riau (UNRI)

Vietnam

Industrial University of Ho Chi Minh City (IUH)

Iraq

KUT University College, Al- Ayen Iraqi University, Al- Ayen Iraqi University, AlMustaqbal University, Al-Maarif University College, University of Technology (UOT) Baghdad, dan Al-Farahidi University (FU)

China

Beijing Jiaotong University, Guilin University of Technology, Guizhou University of Engineering Science, dan Guizhou University of Engineering Science

Thailand

King Mongkut's Institute of Technology Ladkrabang

Memorandum of Agreement

Arab Saudi

Babaker Group

China

Tianjin University, P.R China

Indonesia

Universitas Indonesia, The Republic of Indonesia

Turkiye

Piri Reis University

Letter of Intent

Iraq

University of Technology (UOT) Baghdad



SDG 17: Partnership for the Goals

International Students

The increase in international student enrollment at UMPSA in 2023, with a total of 680 international students, represents a progressive growth that brings numerous benefits, especially in realizing the university's vision of becoming a global campus that embodies world-class education values and cultural diversity within the community. The cultural and linguistic diversity on campus not only enriches the learning experience but also fosters understanding and harmony between local and international students. This helps create an inclusive and dynamic environment.

International Undergraduate Students for the Year 2023

NO	UNDERGRADUATE	
	PROGRAM	TOTAL STUDENT
1	Diploma	0
2	Dual Degree	0
3	Degree	175
4	Preparatory Intensive English (PIE)	9
5	Program Transfer	3
6	Mobility Program (Inbound)	94
TOTAL AMOUNT		281

International Postgraduate Students for the Year 2023

NO	POSTGRADUATE	
	PROGRAM	TOTAL STUDENT
1	Master	99
2	Master (Course Work)	8
3	Master (Mixed Mode)	1
4	Doctorate (PhD)	265
5	Pre-Sessional English Course (PEC)	0
6	Mobility Program (Inbound)	26
TOTAL AMOUNT		399

Internationalization of Academic Confucius Institute (CI)

List of CI Collaborations for the Year 2023

Memorandum of Understanding (MoU) on 22 September 2023 in China.



- Hebei Petroleum University of Technology
- Hebei Software Institute
- Shijiazhuang Institute of Railway Technology

2023 Chinese Bridge Summer Camp for Youths of the Belt and Road Initiative Partner Countries

Confucius Institute (CI) student from UMPSA, Inez Aleeya Zulkiflee, received a scholarship from the Center for Language and Education Cooperation (CLEC), China, and participated in the Chinese Bridge Summer Camp for Youths of the Belt and Road Initiative Partner Countries at Xiamen University (XMU), China, from August 16 to 29, 2023. A total of 260 students from 100 countries were selected to participate in the camp.

Chinese Bridge Mandarin Camp

A total of 11 students from CI UMPSA received scholarships and participated in the Chinese Bridge Mandarin Camp at Hebei University (HBU), China, from September 8 to 21, 2023. The activities conducted included Mandarin language learning and Chinese cultural activities such as Chinese calligraphy, Chinese painting, paper-cutting art, tea art, and more. In addition, the students also engaged in cultural activities with secondary schools in Hebei Province, visited a solar industry site in Hebei, and toured historical sites in Hebei and Beijing.

Asia Forum on Belt and Road Initiative 10th Anniversary

CI UMPSA presented two research papers, namely 'A Review of Education Malaysia of the Belt and Road Initiative: A Case Study of Confucius Institute at UMPSA' and 'Cooperation and Mutual Learning of CI UMPSA in Malaysia Along Belt and Road,' online at the Asia Forum on Belt and Road Initiative 10th Anniversary on September 27, 2023, organized by the University of Colombo.

SDG 17: Partnership for the Goals

List of Activities of CI UMPSA for the Year 2023

NO	PROGRAM	DATE	VENUE
1	Visit of the Beijing Jiaotong University (BJTU) Delegation to CI UMPSA The delegation from Beijing Jiaotong University (BJTU) visited CI UMPSA to discuss various matters, including joint study programs and collaboration in Mandarin language teaching for dual-degree students between UMPSA and BJTU.	April 17, 2023	CI UMPSA
2	Program High-level Forum and Achievement Exhibition on The Joint Training of International Talents on Rail Transit (JTITRT)	July 24 -25, 2023	Baotou, China
3	Visit of the Malaysian Education Delegation to China	September 18 -25, 2023	Hebei dan Beijing, China
4	Visit of the China International Education Foundation (CIEF) Delegation to CI UMPSA The delegation from the China International Education Foundation (CIEF) visited CI UMPSA to discuss broader collaboration with CIEF to advance the education industry between Malaysia and China and to enhance mutual understanding between the people of both countries.	November 2, 2023	CI UMPSA

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