



UTP
UNIVERSITI TEKNOLOGI PETRONAS



Commitment to **Sustainable Futures**

Annual Review 2023

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COVER RATIONALE

Our annual review cover showcases UTP's commitment to tackling global Environmental, Social, and Governance (ESG) challenges and moulding future changemakers. By embedding sustainability into every facet of our operations—from administration to education and research—we cultivate an environment where students become sustainability-conscious individuals poised to drive change in society and the workforce.

We strive to lead by example, demonstrating unwavering dedication to environmental stewardship. This approach profoundly impacts our university community, nurturing a culture of sustainability and inspiring active participation in eco-friendly initiatives.

The dynamic waves in our cover design symbolise UTP's agility and resilience. Though small in size, we are agile in adapting to challenges and opportunities, embodying the spirit of innovation and progress.





Vision

A Leader in
Technology Education
and Centre for
Creativity and
Innovation.

Energising Futures

Universiti Teknologi PETRONAS (UTP) was established on 10 January 1997 and is the best private university in Malaysia.

The campus is built on a 400-hectare (1,000 acres) site strategically located at Bandar Seri Iskandar, Perak Darul Ridzuan, Malaysia. The university is a wholly-owned subsidiary of PETRONAS, the national oil and gas company of Malaysia.

UTP offers a wide range of industry-relevant engineering, science and technology programmes at undergraduate and postgraduate levels. It aims to produce well-rounded graduates with excellent leadership qualities and communication abilities.

The university conducts extensive research activities in collaboration with PETRONAS and other institutions and industries, locally and abroad, on six research focus and niche areas. They are self-sustainable building, transport infrastructure, health analytics, hydrocarbon recovery, contaminant management, and autonomous system.

UTP has produced more than 23,000 graduates. It currently has an enrolment of above 1,000 foundation students, more than 4,000 undergraduates and over 1,000 postgraduates from more than 50 countries around the world.

Mission



UTP is an institute of higher learning. We provide opportunities for the pursuit of knowledge and expertise for the advancement of engineering, science and technology to enhance the nation's competitiveness.



Our objective is to produce well-rounded graduates who are creative and innovative with the potential to become leaders of industry and the nation.



Our aim is to nurture creativity and innovativeness and expand the frontiers of technology and education for the betterment of society.

Achievements and Accolades



No.1 University in Malaysia

No.1 Private University in ASEAN

RANKED
63



World University
Rankings 2023
Asia

RANKED
79



World University
Rankings 2023
Young
2023 TOP 80



UTP Ranked the Best University in Malaysia

UTP has reached a historic milestone by securing the position of Malaysia's Number One University and emerging as the Top Private University in ASEAN in the Times Higher Education (THE) Asia University Rankings 2023.

The university demonstrated remarkable progress, leaping 32 spots from its previous 95th position to an impressive 63rd place.



UTP Soars in QS World University Rankings 2024

In the Quacquarelli Symonds (QS) World University Rankings 2024, UTP made a significant leap, climbing 54 spots from its previous position of 361 to an impressive 307th place.

This achievement cements UTP's position as a leading institution in the global higher education landscape, placing it within the top 21% of the 1,500 institutions ranked worldwide. UTP's outstanding performance in the rankings is attributed to its top-performing domains: Citation, Academic Reputation, and Employer Reputation.

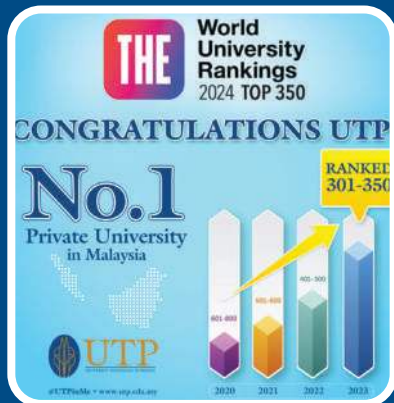


UTP Retains as Malaysia's Best Young University for Third Consecutive Year

For the third consecutive year since 2021, UTP has retained its top position among Malaysian universities in the THE Young University Rankings 2023.

The university has also made remarkable global progress, climbing an impressive 40 places to secure the 79th position in the rankings. UTP's exceptional performance is highlighted in the Research and International Outlook domains, where it received the highest scores among Malaysian universities.





UTP Maintains Its Position as Malaysia's Number One Private University in Times Higher Education World University Rankings 2024

UTP has achieved a remarkable feat in the THE World University Rankings 2024, advancing to the 301-350 band from the 401-500 band the previous year.

This significant progress affirms UTP's position as Malaysia's leading private university and the second among all Malaysian universities.

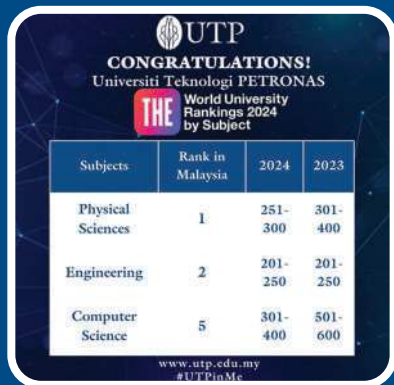
UTP Solidifies Its Global Position in THE Subject Rankings 2024

In the THE World University Rankings 2024 by Subject, UTP showcased its excellence in Engineering, Physical Sciences, and Computer Science.

Engineering continues to be UTP's strongest subject, maintaining its position in the 201-250 range and securing the second spot in Malaysia.

Physical Sciences has also made significant strides, climbing from the 301-400 range to the 251-300 range, positioning UTP as the top institution in Malaysia for this subject.

Computer Science has seen a notable improvement, jumping from the 501-600 range to the 301-400 range, securing the fifth spot in the country.



UTP Maintains Position as Malaysia's Best Engineering University

In the latest QS Asia University Rankings, UTP has secured the 69th position among 857 evaluated institutions, placing it in the top 8% of universities in Asia and 16th within the ASEAN region.

Consistently recognised in prestigious rankings such as THE and QS, UTP continues to strengthen its standing as the leading private university in Malaysia and ASEAN.

UTP Wins Second Consecutive Putra Brand Awards

UTP demonstrated its excellence by securing the Bronze Award in the “Education and Learning” category at the prestigious Putra Brand Awards 2022.

This marks the second consecutive year that UTP has been recognised at these awards, solidifying its position as Malaysia's top private university.



Chairman's Statement

| **Datuk Bacho Pilon**
Chairman





Universiti Teknologi PETRONAS (UTP) has had a remarkable year of innovation and growth, accomplishing significant milestones across the institution. Guided by our unwavering commitment to academic excellence, innovative research, and holistic student development, we have not only adapted to the new normal in the wake of the pandemic but have also seized the opportunities it presented to reimagine and redefine our educational landscape.

Reflecting on the past year, we take immense pride in the strides we have made, the setbacks and obstacles we have overcome, and the promising future that lies ahead. Our successes are a testament to the dedication and resilience of our faculty, staff, and students, who have consistently demonstrated their ability to thrive in the face of adversity.

Further strengthening our reputation, UTP achieved a historic milestone by securing the position of Malaysia's Number One University and emerging as the Number One Private University in ASEAN in the Asia University Rankings 2023. Moreover, we maintained our position as the best university in Malaysia, securing the 69th position among 857 universities evaluated in the QS Asia University Rankings.

At the heart of UTP's mission is our dedication to delivering a world-class, globally oriented curriculum that prepares our students for the challenges and opportunities of the future. Throughout 2023, we have maintained the highest standards of teaching and learning, attracting a diverse cohort of students and equipping them with key knowledge and essential skills needed to excel in their chosen fields. Our commitment to excellence in education is reflected in the strong engagement and impressive employment outcomes of our graduates.

Notably, we established the Security Analytics Lab in collaboration with PETRONAS Group Security. This state-of-the-art facility is a testament to our dedication to blazing new trails in scientific exploration and addressing real-world challenges. By bringing together the expertise of academia and industry, we aim to develop cutting-edge security analytics solutions that will have lasting impacts on society and industry. It provides a platform for our students, researchers, and industry experts to engage in groundbreaking research, develop new methodologies, and exchange ideas. Through this synergistic partnership, we are nurturing a new generation of security professionals who are equipped with the skills and knowledge to tackle the complex challenges of the digital age.

Beyond the establishment of the Security Analytics Lab, UTP has continued to forge strong partnerships with leading institutions and organisations worldwide. These collaborations have opened up new avenues for research, student exchange programmes, and joint projects, enriching the learning experience of our students and expanding our global reach.

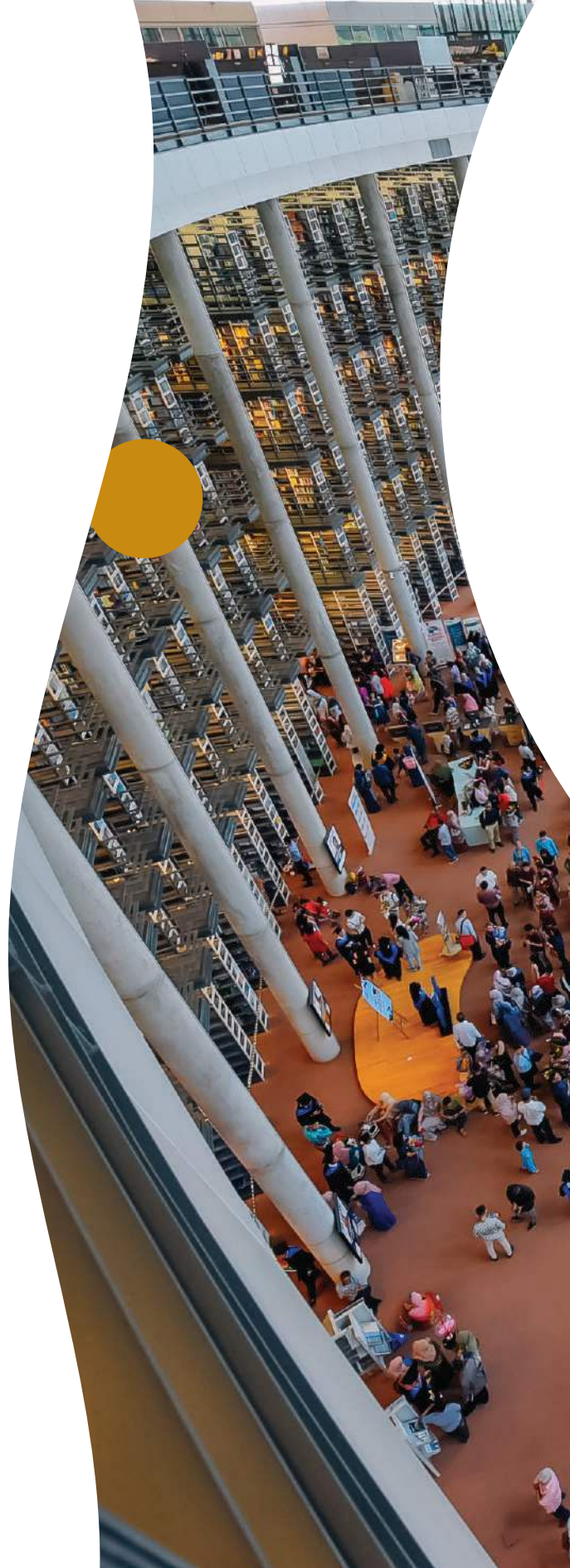
We have also made significant investments in our infrastructure and facilities to ensure our students have access to the best resources and technology. From advanced laboratories to cutting-edge learning spaces, we have created an environment that fosters innovation, creativity, and intellectual curiosity. Moreover, we continuously strive to address any gaps in students' needs, maintain our existing infrastructure in excellent condition, and resolve any issues promptly.

Our faculty and staff have been instrumental in driving our success. Their dedication, expertise, and passion for teaching and research have been the backbone of UTP's achievements. With education as an enabler, our faculty and management are committed to shaping the minds of tomorrow's leaders.

UTP is driven to make a positive impact on communities across Malaysia. As such, we have embarked on several initiatives to support sustainable development and education in the region.

One notable collaboration is our partnership with Malaysian Kuwaiti Investment Co Sdn Bhd (MKIC) to advance research and development in the palm oil industry, specifically in Tawau, Sabah. Through this collaboration, we aim to develop sustainable technologies that optimise the use of biomass and other wastes from palm oil plantations.

Furthermore, UTP signed a memorandum of understanding with University College Sabah Foundation (UCSF) back in 2022 to enhance our academic reputation and strengthen research capabilities through rigorous academic and research partnerships. Building on our successful collaborations in East Malaysia and the successful ESTCON2022 in Kuching, Sarawak, we are pleased to announce that the World Engineering, Science and Technology Congress (ESTCON 2024) will be held in Kota Kinabalu, Sabah.

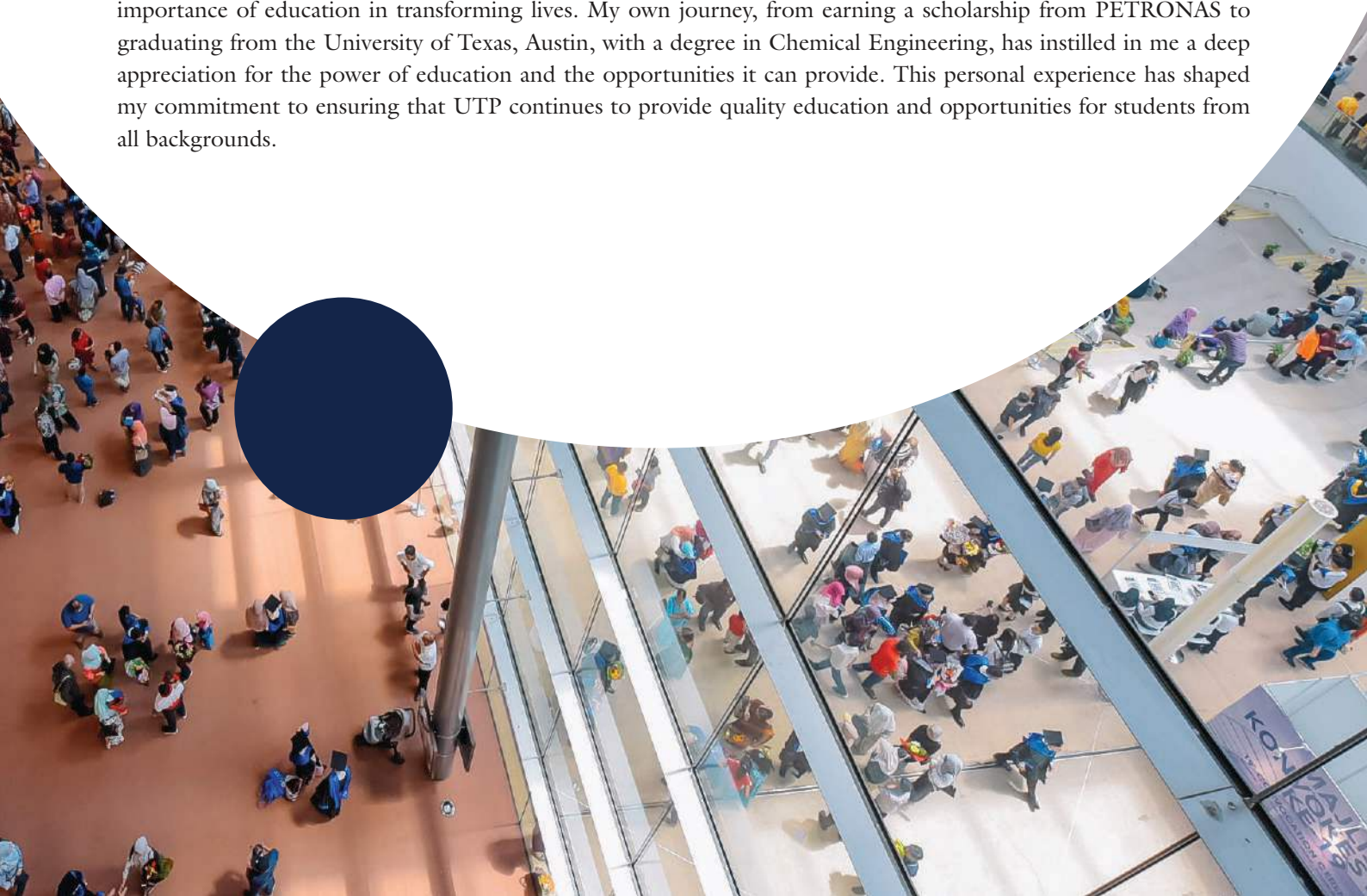


In the pipeline, UTP will launch a community-driven initiative known as the grassroots social innovation programme or “Towards Uplifting Lives Programme” (TULiP) in early 2024. Led by the UTP Centre of Social Innovation (CoSI) under the Institute of Self-sustainable Building (ISB), TULiP is jointly funded by PETRONAS, Yayasan Hasanah and UTP’s University Social Responsibility (USR). CoSI will collaborate closely with the Malaysian Agricultural Research and Development Institute (MARDI) and PEDULI INSAN in a concerted effort to uplift the socio-economic standing of the indigenous communities in Lawas, Sarawak.

These are just some examples of UTP’s efforts to touch the lives of people across the nation, to go there and make a difference. For instance, in Peninsular Malaysia, we have worked with local authorities in Manjung to establish a sustainable coastal environment in Teluk Nipah, implemented recycling systems in primary schools, especially the ones in Perak Tengah, provided school supplies to 331 students in need, and organised the ‘E-STREAM (Science, Technology, Reading, Arts and Music) Waves’ competition. We have been cognisant from the start of the influence and positive impact the university wields and can wield on the broader society.

In view of this, we have emphasised the importance of all of our initiatives, providing recipients with sound responses to face the challenges and realities of the economy, environment and society.

As someone who grew up on the remote island of Tawau in Sabah, I understand the value of hard work and the importance of education in transforming lives. My own journey, from earning a scholarship from PETRONAS to graduating from the University of Texas, Austin, with a degree in Chemical Engineering, has instilled in me a deep appreciation for the power of education and the opportunities it can provide. This personal experience has shaped my commitment to ensuring that UTP continues to provide quality education and opportunities for students from all backgrounds.







Education plays a crucial role in driving sustainability initiatives and shaping the mindset of future generations. We recognise this and have taken proactive steps to embed sustainability concepts into our curriculum. From the compulsory subject “Introduction to Oil & Gas Industry and Sustainable Development” for all first-year undergraduates to integrating sustainability concepts in each academic programme, UTP ensures our students are well-versed in the importance of sustainable practices.

By fostering a culture of sustainability on campus, UTP aims to create a ripple effect, with its graduates becoming change agents who will make a difference in society.

As part of our goals, we are committed to actively engaging with our local communities and contributing to their well-being beyond our core mission of providing world-class education. Looking forward, we will continue to invest in our people, facilities, and research capabilities to ensure that we remain at the forefront of academic excellence.

UTP’s research and innovation efforts are guided by a strong sense of social responsibility, focusing on developing solutions that not only advance knowledge but also have the potential to improve lives, tackle pressing social issues, and contribute to sustainable development.

Through our strong partnerships with industry and government, we will continue to address societal challenges, drive socio-economic progress, and contribute to the development of our nation. Our commitment to giving back to society remains unwavering as we strive to make a meaningful difference in the lives of others through our research, initiatives, and collaborations.

On behalf of the Board of Directors, I would like to express my heartfelt gratitude to PETRONAS, and our students, parents, sponsors, and partners for their unwavering support and trust in UTP. Your belief in our mission and vision has been the driving force behind our success.

I would also like to commend the Vice Chancellor, Prof Dato’ Ts Dr Mohamed Ibrahim Abdul Mutalib, and the entire UTP community for their tireless efforts and dedication. Their commitment to excellence, innovation, and student success is truly inspiring.

As we step into the future, UTP remains dedicated to building upon our accomplishments, fostering groundbreaking ideas, and providing our students with a truly global educational experience. We will continue to invest in research and development initiatives, as well as partnerships that create meaningful change and contribute to the betterment of society.

Datuk Bacho Pilog

Chairman



Vice Chancellor's Report

Prof Dato' Ts Dr Mohamed
Ibrahim Abdul Mutalib
Vice Chancellor



As we reflect on the year 2023, I am filled with an overwhelming sense of pride and gratitude. Universiti Teknologi PETRONAS (UTP) has not only continued its legacy of excellence but has also charted new territories in academic achievement, research innovation, and global recognition.



In 2023, UTP has accomplished significant milestones aligning with the goals and ambitions outlined in our UTP Strategic Plan. Our accomplishments reflect our unwavering commitment to academic excellence, impactful research, and continuous development of our programmes.

Soaring to New Zeniths

Notably, UTP has made significant strides in global rankings this year. I am elated to announce that UTP was ranked as Malaysia's number one university and the top private university in ASEAN by the Times Higher Education (THE) Asia University Rankings 2023. Our ascent from the 95th to the 63rd position is a testament to the collective efforts of our dedicated faculty, passionate students, and visionary leadership.

Furthermore, in the QS World University Rankings 2024, UTP made a remarkable leap of 54 places, securing the 307th position globally. This places us within the top 21% of universities worldwide, demonstrating our growing influence and reputation on the international stage. Our excellence was further affirmed in the THE Young University Rankings 2023, where we moved up 40 places to the 79th position, underscoring our strengths in research and international outlook.

In 2023, we witnessed a significant growth in our research output, with an increase in high-impact publications and citations. Additionally, we have strengthened our partnerships with leading global universities and research institutions, resulting in collaborative projects that address global challenges in energy, sustainability, and digital transformation. These partnerships enhance our research capabilities and provide our students with invaluable exposure to international best practices and cutting-edge technologies. As such, our students have demonstrated excellence in various domains, winning awards in prestigious international competitions.

From Challenges to Breakthroughs

In the past year, we encountered various challenges that put our resilience to the test. One of the primary challenges was transitioning from remote learning to hybrid and in-person classes. Thus, we implemented comprehensive health protocols and invested in hybrid learning technologies to ensure quality education for various learning preferences. Despite global uncertainties, we sustained our research momentum through enhanced virtual collaboration and targeted funding on high-impact research areas, namely sustainable development and energy transition.

With mental health issues heightened by the pandemic, we expanded our counselling services and introduced comprehensive wellness programmes for students and staff. To keep pace with rapid technological advancements, we prioritised infrastructure upgrades and curriculum revisions to include emerging fields. Despite these challenges, UTP demonstrated remarkable resilience and adaptability, turning obstacles into opportunities for growth and improvement.

The Heartbeat of UTP's Legacy

At UTP, our alumni are not just graduates; they are the living embodiments of our legacy and the architects of our future. Our alumni serve as beacons of inspiration, illuminating the path for current students through mentorship and networking. The insights they bring to our classrooms as adjunct lecturers, workshop leaders and panellists add an invaluable real-world perspective to our academic offerings. Moreover, our alumni facilitate internships and job placements for students, offering crucial support in launching successful careers.

We witnessed an outpouring of support from our UTP family, with donations reaching RM7.6 million via Tabung Amanah Zakat (TAZU) and Yayasan UTP (YUTP). This generosity has allowed us to offer more scholarships and grants, opening doors of opportunity for deserving students who might otherwise have struggled to pursue their dreams. The UTP Alumni Association has also cultivated a supportive community that transcends geographical boundaries.

Through various events and affinity groups, we created a global network that offers lifelong friendships and professional opportunities, strengthens our alumni's connection to UTP and reinforces our reputation on the world stage. Ultimately, we see our alumni as key players in maintaining and enhancing UTP's legacy, diversity, reputation and community through their tangible and intangible contributions.

Nurturing Potential with Financial Accessibility

In these challenging times of increasing competition and dwindling scholarship opportunities, UTP remains steadfast in its commitment to supporting financially disadvantaged students. Our strategy is twofold, focusing on both intake support and living assistance.

Through our partnerships with YUTP and TAZU, we have established prestigious Full Undergraduate Scholarship programmes and Full Foundation Sponsorships that open our doors to top students from low-income families. In addition, our Education and Academic grants from YUTP and TAZU ensure continuous support for students from low to middle-income backgrounds. In 2024, we allocated an impressive RM18.3 million to fund these critical initiatives, ensuring that financial barriers do not impede academic potential.

Recognising that student needs extend beyond tuition, we have implemented comprehensive living support strategies. Our data-driven approach allows us to anticipate and allocate resources to assist students with financial difficulties. UTP's Student Welfare Fund has been expanded to RM100,000 annually, covering a range of hardships, such as loss of parental income, natural disasters, and mental health conditions. Initiatives such as affordable meal options starting from RM3.50, financial literacy programmes and on-campus job opportunities further demonstrate our commitment to creating a supportive environment where students can focus on their studies without financial stress.

At UTP, we understand that the landscape of higher education is rapidly evolving and, with it, the skills required for our graduates to thrive in the global workforce. In response to the evolving demands of industry and the need for interdisciplinary education, we introduced several innovative programmes in 2023. Among these is the Bachelor of Science in Data Science, a cutting-edge programme designed to equip students with the skills needed to analyse and interpret complex data, and meet the growing demand for data scientists across various industries.

Our Research Frontiers

UTP has intensified its focus on high-impact, industry-relevant research that aligns with both national priorities and global challenges, ramping up our efforts in new energy, new materials, rare earth, the circular economy, and smart cities.

Our Institute of Emerging Digital Technologies (EDiT) is spearheading groundbreaking projects such as Digital Technology for Carbon Capture, Utilisation, and Storage (CCUS). This initiative integrates AI and generative AI technologies to enhance CO₂ monitoring and reporting. In the field of new materials, EDiT is revolutionising Smart Material Development through the introduction of advanced polymer technologies with applications ranging from health and safety to 4D printing and biomedical devices.

The Institute of Sustainable Energy (ISE) is making remarkable progress in developing environmentally friendly solutions for rare earth elements (REE) extraction and separation. Through the Institute of Self-Sustainable Building (ISSL) and collaborations like the Professional Alliance for Circular Economy (PACE), UTP is advancing industrial symbiosis and green servitisation, contributing directly to sustainable development goals. Moreover, ISSL's research in Deep Learning for Future Smart Cities is leveraging AI technologies to enhance data processing capabilities crucial for smart city infrastructure.

In alignment with PETRONAS' aspiration towards sustainable global prominence and Net Zero Carbon Emission (NZCE) by 2050, UTP has taken a proactive stance in contributing to energy transition initiatives. Our research focuses on developing sustainable solutions, including self-sustainable building, transport infrastructure, and health analytics. These areas of study are integral to the global energy transition, positioning UTP at the forefront of this crucial shift.

Global Progress through Partnerships

At UTP, we recognise that groundbreaking innovations often emerge from collaborative efforts. Hence, we continued to strengthen and expand our network of partnerships, driving significant advancements across various sectors.

As a subsidiary of PETRONAS, Malaysia's national oil and gas company, our relationship with our parent organisation remains a cornerstone of our industry engagement. This partnership has been instrumental in spearheading joint research initiatives, industry-driven projects, and knowledge exchange programs. Together, we have tackled complex industry challenges, explored innovative solutions, and enhanced sustainability practices in the energy sector. UTP's synergy with PETRONAS and other industry leaders underscores our commitment to advancing technology and addressing global energy challenges through collaborative research and development.

Beyond the energy sector, UTP has expanded its academic network with institutions worldwide, fostering collaborative research projects, student exchange programmes, and joint academic initiatives. These international partnerships have opened up invaluable opportunities for our students and faculty, providing exposure to diverse perspectives and fostering a global mindset in our approach to research and innovation.

In our pursuit of societal impact, UTP has engaged with government agencies, research organisations, and non-profit institutions to address pressing societal challenges and contribute to national development agendas. These multifaceted partnerships span areas such as renewable energy, environmental conservation, digital innovation, and community development, reflecting our commitment to leveraging expertise and resources for the greater good of society.

At the Forefront of the Green Revolution

In alignment with our parent company PETRONAS, we structure our sustainability efforts around the national oil corporation's four sustainability lenses: ensuring continued value creation, bringing positive social impact, practising responsible governance, and safeguarding the environment.

Bolstering our efforts for a sustainable future, UTP has implemented numerous green initiatives to promote sustainability and achieve a net-zero carbon campus. We implemented comprehensive energy efficiency measures, including upgrading HVAC systems, adopting energy-efficient compressed air systems, widespread use of LED lighting, including Solar LED lighting in areas like the Geological Rock Garden, and deploying Building Management Systems to monitor and reduce energy consumption. In partnership with PETRONAS, we are introducing the Low Carbon Operation System (LCOS), a cloud-based dashboard for online carbon management. Developed by MGTC and ENVISION Digital, this system enables in-depth analysis, measurement, management, and mitigation of greenhouse gas emissions.

Following the completion of our 7.3 MW Solar Site, the largest single solar rooftop installation in Malaysia, we are currently collaborating with Gentari to expand our solar capacity with a new project at our research and development building in its final study phase. With enhancements to bicycle lanes and pedestrian walkways, we promote eco-friendly transportation options and a sustainable lifestyle in our community. Our commitment extends outside our campus borders through active collaboration with local communities, such as outreach programmes and initiatives like tree planting events. These initiatives are pivotal in our mission to reduce carbon emissions by 30% by 2030.

Social Responsibility in Action

Through our University Social Responsibility (USR) initiatives, we strive to create meaningful impact in the lives of individuals and communities locally and globally. In 2023, our USR efforts have yielded significant achievements across three key pillars: Education, Environment, and Socioeconomic Development.

Under the Education Pillar, we launched the innovative 'E-STREAM WAVES' initiative, expanding the traditional Science, Technology, Engineering, and Mathematics (STEM) focus to include Science, Technology, Reading and Writing, Engineering, Arts, and Mathematics (STREAM). This programme is designed to provide a more comprehensive educational experience for students and educators through interactive workshops and hands-on experiments. By cultivating interest and proficiency in these subjects among young learners, we prepare the next generation for exciting careers in engineering and science. Our commitment to advancing STEM education reached new heights by signing a Memorandum of Understanding (MoU) with the Atomic Energy Licensing Board (AELB) to elevate STEM education in Malaysia, encompassing curriculum development and pioneering research projects in nuclear science and technology.

Regarding environmental conservation, we collaborated significantly with Majlis Perbandaran Manjung (MPM) and Jabatan Pengairan dan Saliran (JPS) Manjung to establish a Sustainable Coastal Environment in Teluk Nipah. This project actively engages local communities in sustainable practices to protect the coastal ecosystem and mitigate coastal erosion.



Charting the Future

UTP is poised to reinforce its position as a premier provider of engineering education in Malaysia. Our strategic roadmap is anchored in a holistic approach, encompassing excellence in education, research, innovation, industry collaboration, global engagement, student development, sustainability, and social responsibility.

In our pursuit of educational excellence, we are enhancing programme quality through innovative teaching methodologies and aligning our curricula with industry needs. Our goal is to cultivate graduates who excel in critical thinking, problem-solving, and interdisciplinary collaboration.

Under research, innovation and commercialisation, we are channelling our efforts towards tackling societal challenges and driving economic development via our state-of-the-art facilities, fostering interdisciplinary research initiatives, and encouraging impactful projects led by both our distinguished faculty and ambitious students. In relation to that, we are intensifying efforts to facilitate industry-sponsored projects, internships, and collaborative research endeavours.

On the global stage, UTP is expanding its footprint through strategic partnerships with universities, research institutions, and industries worldwide. By promoting international exchanges, joint research ventures, and participation in global engineering initiatives, we are fostering a truly global perspective among our community. Nevertheless, we strive to develop our students into future leaders, as reflected in our comprehensive student development programmes, which encompass leadership training, entrepreneurship education, career guidance, and diverse extracurricular activities.

As we forge ahead, we are setting our sights on expanding our research frontiers in emerging fields such as artificial intelligence, renewable energy, sustainable infrastructure, and digital transformation. By strengthening collaborations with industry, government, and academia, we aim to drive innovation, technology transfer, and economic growth while enhancing our international visibility and recognition as a leading engineering institution. Our goal is to empower graduates who are technically proficient and socially responsible.

In essence, we remain steadfast in our commitment to excellence, innovation, collaboration, and societal impact, positioning UTP as a trailblazer in engineering education and research in Malaysia and internationally. The path ahead is challenging, but with our collective vision, dedication, and the unwavering support of our community, I am confident that UTP will continue to rise, innovate, and inspire in the years to come.

Prof Dato' Ts Dr Mohamed Ibrahim Abdul Mutalib

Vice Chancellor

A Night of Giving at UTP's Tapestry of Colours 2023

The Tapestry of Colours Charity Dinner (TOC) 2023, organised by Yayasan Universiti Teknologi PETRONAS (YUTP) with support from UTP and PETRONAS, successfully raised over RM800,000 to bolster YUTP's scholarship fund. The event, which coincided with UTP's 25th anniversary celebration, featured spectacular traditional and contemporary performances by talented UTP students.

Since its establishment in 2007, YUTP has awarded scholarships and bursaries totalling RM77 million to more than 2,400 deserving students. The charity dinner also raised funds separately through crowdfunding for five different UTP social responsibility projects, all aimed at supporting the growth and sustainability of future generations. These projects include preserving the cultural heritage of gamelan, training future rugby players, combating global solid waste problems, providing food for the underprivileged, and ensuring access to clean water for the Orang Asli community in Simpang Pulai, Perak.

The event was attended by more than 350 guests, including UTP Chairman Board of Directors Datuk Bacho Piong, PETRONAS Executive Leadership Team members, UTP Board Members, industry partners and alumni.





UTP Senior Lecturer Wins Emerging CCUS Leader Award

Dr Serene Lock Sow Mun, a Senior Lecturer at UTP, has been honoured with the Emerging CCUS Leader Award at the Carbon Capture Canada Awards. This prestigious award recognises Dr Serene's exceptional contributions to the Carbon Capture, Utilisation, and Storage (CCUS) industry in Canada and worldwide.

Dr Serene's research focuses on developing innovative computational solutions to address decarbonisation challenges by combining her expertise in process modelling, simulation, software programming, and chemical engineering. She has led the development of novel and copyrighted computational inventions, which have been successfully commercialised to assist in capturing carbon dioxide (CO₂) from natural gas and have garnered numerous accolades. Her inventions have been used by oil and gas companies to produce natural gas that is clean, safe, and environmentally friendly while meeting stringent regulatory requirements.



Driving Excellence in Advanced Engineering Research

Associate Professor Ir Ts Dr Irraivan Elamvazuthi, from the UTP's Electrical and Electronics Engineering Department, has been recognised as one of the 30 recipients of the prestigious Top Research Scientists Malaysia (TRSM) 2023 Award by the Academy of Sciences Malaysia (ASM).

Dr Irraivan's inclusion in this distinguished group of Malaysian research scientists is a testament to his significant contributions to the advancement of engineering research in the country. His transdisciplinary research in robotics, automation, and artificial intelligence has contributed to developing advanced systems for smart cities and healthcare applications, highlighting his dedication to leveraging technology for societal benefit.



UTP Shines at IChemE Global Awards with Groundbreaking Innovations



Ir Dr Rashid Shamsuddin, an Assistant Professor within the Chemical Engineering Department, and his team have made significant strides in the field of virtual reality with their project, “Interactive Virtual Reality Plant Tour.” This innovative endeavour was recognised at the Institution of Chemical Engineers (IChemE) 2022 Malaysia Award, where it emerged as the Winner of the Training and Development Award.

The project's success continued on a global scale, as it became a Finalist for the Training and Development Award at the IChemE 2022 Global Awards in the United Kingdom. The Virtual Reality Plant Tour has not only garnered accolades but has also attracted interest from the University of Canterbury, opening up exciting opportunities for commercialisation of the developed VR module.

UTP's Centre for Biofuel and Biochemical Engineering (CBBR) also made a remarkable impact at the IChemE Global Awards 2023, securing the Research Project Award and a Highly Commended accolade in the Biochemical Engineering Award category.

The Research Project Award acknowledges the Solar Integrated Anaerobic Digester and Aerobic Composter (SIDAC), led by Ir Dr Rashid Shamsuddin and his research officers, M Devendran Manogaran and Mohd Hakimi Rosli.

Furthermore, M Devendran, a UTP research officer and PhD student in Chemical Engineering, emerged as a finalist for the Young Researcher Award, a significant achievement considering the global competition. Specialising in the biochemical conversion of biomass, M. Devendran has co-authored over ten scholarly articles in high-impact journals and won more than ten innovation competitions within just two years of his PhD candidacy.

Dr Eahsanul Haque Hailed as Asia's Most Promising Scientist

Dr AKM Eahsanul Haque, a Senior Lecturer in the Geoscience Department at UTP, has been honoured with the Most Promising Scientist Award in the Asia's Research & Scientist & Professor & Teaching Academic Awards category by Asia Awards. This prestigious accolade recognises his outstanding contributions and achievements in the field of Geosciences, specifically in reservoir characterisation, 3D subsurface geomodelling, and geoscience project management.

The "Most Promising Scientist of Asia" Award acknowledges Dr Haque's commitment, passion, and unwavering dedication to achieving excellence in Geosciences. This recognition not only celebrates his past accomplishments but also anticipates the potentially impactful contributions he is expected to make in the future, further advancing crucial domains within UTP's Faculty of Science and Information Technology.



CAPE Awarded Best Training Provider at HRD Awards 2023

The Centre for Advanced and Professional Education (CAPE) at UTP was awarded the title of Best Training Provider (Northern Region) at the Human Resources Development Awards 2023 (HRD Awards 2023).

The HRD Awards 2023, featuring three major categories, recognised CAPE in the HRD Corp Awards segment for its exceptional accomplishments in training and development. This category was part of the broader HRD Awards, including the Human Resources Minister Award for large employers and additional HRD Corp Awards for Small and Medium Enterprises (SMEs), training providers, and trainers.

Human Resources Minister YB Tuan V Sivakumar personally presented the esteemed Best Training Provider (Northern Region) award, which was accepted by Professor Ts Dr Mohamed Ibrahim Abdul Mutalib, Vice Chancellor of UTP. This achievement stands as a testament to UTP's ongoing commitment to empowering individuals, honing skills, and making significant contributions to the overall development of human capital in the region.



CIRCULAR

SPECIAL ISSUE

CAPE Celebrates Win as the Best Training Provider (Northern Region) at HRD Awards 2023



We are thrilled to announce that the Centre for Advanced and Professional Education (CAPE) under the Universiti Teknologi PETRONAS has clinched the prestigious title of Best Training Provider (Northern Region) at the Human Resources Development Awards 2023 (HRD Awards 2023). The award ceremony, held on Tuesday, 31st October 2023, at The Majestic Hotel Kuala Lumpur, was a celebration of outstanding achievements and contributions made by industry players excelling in national-level human capital development.

The HRD Awards 2023, featuring three major categories, recognized CAPE in the HRD Corp Awards segment for its exceptional accomplishments in training and development. This category was part of the broader HRD Awards, which also included the Human Resources Minister Award for large employers, along with additional HRD Corp Awards for Small and Medium Enterprises (SMEs), training providers, and trainers.

Human Resources Minister, YB Tuan V. Sivakumar personally presented the esteemed Best Training Provider (Northern Region) award, which was graciously accepted by Professor Ts. Dr. Mohamed Ibrahim bin Abdul Mutalib, Vice Chancellor of Universiti Teknologi PETRONAS. His acceptance of the trophy highlighted the university's unwavering commitment to promoting excellence in education and human capital development.



This significant achievement was witnessed by esteemed guests, including Deputy Prime Minister, YAB Dato' Sri Haji Fadillah B Haji Yusof, Deputy Human Resources Minister YB Mustapha Sakmud and HRD Corp Chief Executive Officer, Datuk Wira Shahul Dawood. Their presence at the event emphasized the government's support and recognition of initiatives driving excellence in the field of human capital development.

We express our heartfelt gratitude to HRDCorp for this esteemed honour and extend our thanks to our dedicated team, trainers, and partners whose unwavering contributions have led to our success. This achievement stands as a testament to our ongoing commitment to empowering individuals, honing skills, and making significant contributions to the overall development of human capital in the region.



LMG Sets the Bar High with a 3-Star MPC Rating

The Laboratory Management Department (LMG) at UTP has demonstrated its commitment to excellence by achieving the highest 3-star rating from the Malaysian Productivity Corporation (MPC) for the second consecutive year.

This remarkable feat was accomplished following a rigorous Quality Environment/5S (QE/5S) certification audit conducted by MPC, which thoroughly assessed LMG's Teaching & Learning and Research laboratories.

UTP stands out as the sole university in Malaysia whose laboratories undergo such a comprehensive MPC audit and certification, setting a benchmark for higher education institutions nationwide. This achievement is a testament to LMG's unwavering dedication to enhancing the image of its laboratories and elevating the quality of service delivery to all stakeholders.

LMG Clinches IKM Laboratory Excellence Award for Third Year Running

LMG secured the prestigious IKM Laboratory Excellence Award 2023 for the third consecutive year, following a comprehensive assessment by Institut Kimia Malaysia (IKM) in the field of Chemical Testing conducted at the Environmental Laboratory, Civil and Environmental Engineering Department.

Ir Mohd Fatimie Irzaq Khamis, Director of Laboratory Management, received the award during the Malam Kimia and Presentation of IKM Awards 2023 at the One World Hotel. The event was honoured by the presence of YB Chang Lih Kang, Minister of Science, Technology, and Innovation. The support provided by UTP's Management and the collaboration with the LMG team were instrumental in this success.

‘Smart Home Guard’ by UTP and Seri Iskandar Fire Department Garner Accolades

UTP and the Seri Iskandar Fire and Rescue Department received prestigious awards for their collaborative innovation, the ‘Smart Home Guard’.

The Malaysian Fire and Rescue Department Innovation Week 2023 acknowledged the ‘Smart Home Guard’ in the hybrid/collaborative innovation category, highlighting the project’s innovative nature and potential to revolutionise home safety. At the Ministry of Local Government Development Innovation Award 2023 ceremony, UTP and the Seri Iskandar Fire and Rescue Department were honoured for their strategic collaboration.

Developed in collaboration with Gensonic Technology, the ‘Smart Home Guard’ is an innovative grill that incorporates advanced sensors and real-time communication systems, creating a home safety solution using a microcontroller called miniGen. When a hazardous fume is detected by the smoke detector, the alarm is triggered. Simultaneously, using the miniGen setting, the lock mechanism on the grill automatically opens within a 5-second timeframe, facilitating life-saving efforts by the Fire and Rescue Department.



“Earth Fossil Explorer” Earns a Spot in Malaysia Book of Records

UTP’s Immersive Reality Centre (IRC) collaborated with the Geoscience and Computer & Information Science departments to create the groundbreaking “Earth Fossil Explorer” book series. On top of that, the series received the Malaysia Book of Records (MBR) award for the first immersive reality book produced by a local university in the Science and Technology category.

Authored by Maria Hani (IRC) and Dr Siti Nur Fathiyah (Geoscience), the Augmented Reality (AR) embedded book narrates the story of how the decomposition of fossil and plant form oil and gas in a plain and engaging manner, targeting young children and aiming to inspire Science, Technology, Engineering & Math (STEM) interest at grassroots levels.

The book’s success was evident during its launch at the Kuala Lumpur International Book Fair, where 100 copies were sold within six months, making it UTP’s instant bestseller. The book has also gained interest from foreign publishers in the Mainland China market.

UTP’s IRC further extended its market reach within local communities, particularly in Perak, due to an endorsement from Dato’ Mohamad Fauzi Mahson, Director of Perak State Education Department, as a strategic partner in accelerating STEM teaching and learning uptake among 800 primary schools across 12 districts in Perak.



UTP Hosts Integrity Day 2023, Promoting Ethical Leadership

UTP held its annual Integrity Day on 11 July 2023, reinforcing the institution's commitment to fostering a culture of ethical leadership and integrity.

The highlight of the event was a Leaders' Conversation panel discussion on the topic "Building a Culture of Ethical Leadership: Nurturing Integrity Working Environment". The distinguished panel included Prof Ts Dr M Ibrahim Abd Mutalib, Vice Chancellor of UTP; Tan Sri Zaharah Ibrahim, Pro Chancellor of UTP; Encik Razman Hashim, Senior Vice President and Group General Counsel of PETRONAS; and Puan Norashikin Hassalli, General Manager of PETRONAS Group Integrity.

The event aimed to achieve several key objectives:

1. Amplify awareness of integrity among UTP staff and students
2. Promote the whistleblowing channel and encourage reporting
3. Gauge awareness of Corporate Liability among the UTP community
4. Nurture anti-bribery values among students, in collaboration with Angkatan Mahasiswa Anti Rasuah (AMAR), aligning with the theme "NoOneIsSpared"

Prof Ibrahim emphasised the importance of integrity in academic and professional settings, stating, "Integrity is the cornerstone of our institution. It is crucial that we continue to nurture an environment where ethical behaviour is not just encouraged, but expected".

The Integrity Day 2023 served as a platform for open dialogue on ethical challenges and reinforced UTP's commitment to maintaining the highest standards of integrity in all its operations.

UTP Celebrates Employee Recognition Day 2023, Honouring Staff Excellence

UTP held its annual Employee Recognition Day (ERD) on 5 September 2023 to celebrate the achievements and dedication of its staff members. The event was graced by Ir Mohamed Firouz Asnan, a member of UTP's Board of Directors, highlighting the importance of the occasion to the university's leadership.

In his speech, Prof Ts Dr M Ibrahim Abd Mutalib, Vice Chancellor of UTP, highlighted the university's recent accomplishments, including its rise in global rankings. "Our continued success in the Times Higher Education and Quacquarelli Symonds World University Rankings is a testament to the hard work and dedication of our staff", he remarked.

The ERD honoured outstanding staff members across multiple categories, recognising long-serving employees and retirees for their commitment to the university. Prof Ibrahim emphasised the critical role of UTP's staff in driving the institution towards its goal of sustainable global prominence in technology, education and research.

The Vice Chancellor also used the occasion to discuss UTP's future direction, stating, "As we celebrate these achievements, we must also look to the future. UTP is embarking on a transformative journey to become more self-sustaining, with a focus on excelling in research and exploring commercial applications of our technologies".

ERD 2023 served not only as a celebration of past achievements but also as a rallying call for continued excellence and innovation at UTP.



Lewis Hamilton Visits UTP Campus

UTP was honoured to welcome seven-time Formula One World Champion and Mercedes-AMG PETRONAS Formula One driver Lewis Hamilton to its campus on 25 March 2023. Hamilton's visit marked a significant milestone for the university, as it allowed students, faculty, and staff to engage with one of the most successful and influential figures in the world of motorsports.

During his visit, Hamilton took a tour of the UTP campus, exploring the university's state-of-the-art facilities and learning about its commitment to excellence in education and research. The tour provided an opportunity for the UTP community to showcase its achievements and highlight how it prepares the next generation of leaders and innovators.

Following the tour, Hamilton participated in an inspiring Q&A session where he shared his personal story and insights on the importance of perseverance, dedication, and the pursuit of one's dreams. His message resonated with the UTP community, encouraging students to strive for excellence in their academic and personal endeavours.





UTP Hosts Malaysia SDGs Summit 2023 (Northern Region)

On 16 November 2023, UTP, in collaboration with the Northern Corridor Economic Region (NCER) and Institute of Self-sustainable Building (ISB), hosted the Malaysia SDGs Summit 2023 (Northern Region) at the Chancellor Hall, UTP, Perak.

The summit, themed “Innovative Synergy Towards Sustainable Development - New Emerging Industries For Better Tomorrow,” brought together distinguished speakers and participants from key industry players and government agencies to engage in intellectual discourse and to witness real-life examples of sustainable practices through visits to sustainability projects in the NCER. The summit featured a special dialogue session, keynote addresses, panel discussions and a networking session.

Among the featured speakers were Prof Dato’ Ts Dr Mohamed Ibrahim Abdul Mutalib, Vice Chancellor of UTP; Prof Ir Dr Mohd Shahir Liew, Deputy Vice Chancellor Research, Innovation & Commercialisation of UTP; Mohamad Haris Kader Sultan, Chief Executive of the Northern Corridor Implementation Authority (NCIA); Dato’ Nor Azmie Diron, Secretary General of the Ministry of Economy; Dato’ Sri Mustapa Mohamed, Former Minister in the Prime Minister’s Department (Economy); Dato’ Ir Ts Abdul Razib Dawood, Chief Executive Officer of the Energy Commission; Ms Angela Cheong, Human Resources (HR) Vice President of Keysight Technologies Malaysia Sdn Bhd; and Mr Abang Arabi Abang Narudin, Senior Vice President of Corporate Strategy at PETROS.



Alumni Highlights: A Year in Review



UTP Alumni Chinese New Year celebration
at The Latitude, Hotel Armada Petaling Jaya



UTP Alumni Association Annual General Meeting &
Entrepreneurial Talk at CAPE, Permata Sapura



UTP Alumni Engagement Dinner
in Bangkok, Thailand



Alumni Teh Tarik Session with
Prof Vice Chancellor



MED Clean the Beach with Alumni
at Teluk Senangin



Up Close & Personal with UTP Alumni,
Maria Teo



**UTP Alumni Entrepreneur Meet & Greet Session
at CAPE, Permata Sapura**



UTP Alumni Engagement at Ho Chi Minh, Vietnam



**UTP Alumni Hari Raya
Aidilfitri celebration at
Glasshouse, Ampang**



UTP Alumni Homecoming



**UTP Alumni Dinner at Resort World Kijal
in Kerteh, Terengganu**

Defying Odds to Secure EER Fellowship

Previna Arumugam, a Malaysian geophysicist and UTP alumna, has been awarded the prestigious Energy and Earth Resources (EER) fellowship from the University of Texas in Austin, USA. She stands tall among the 25 global awardees of the coveted fellowship this year, sponsored by the university's Jackson School of Geosciences.

Overcoming financial struggles and societal expectations, Previna's journey from humble beginnings to becoming the sole Southeast Asian recipient of the fellowship serves as an inspiration to aspiring women in STEM fields. Her story emphasises the importance of dreaming big, working hard, and embracing challenges to create a future filled with boundless possibilities.



Alumni Achievement

The first in Asia to receive a Fellowship on Energy and Earth Resources from the University of Texas at Austin, United States.

Previna Arumugam

Caps, Gowns, and Crowning Glories

Unveiling Scholastic Triumphs at UTP's 23rd Convocation

UTP held its 23rd convocation ceremony from 29 to 30 October at the UTP Chancellor Hall in Seri Iskandar, Perak, where a total of 1,386 graduates received their scrolls. UTP Chancellor Tan Sri (Dr) Mohd Hassan Marican conferred the degrees for the two-day convocation, with 192 graduates awarded postgraduate degrees and 1,074 receiving bachelor's degrees.

This year's convocation marked a milestone for three programmes, with their first-time graduates: Bachelor in Business Management (Honours), Bachelor of Materials Engineering with Honours, and Doctor of Philosophy in Information Systems.

Outstanding graduates were recognised for their achievements, with Jocelyn Teh Shuang Ru (Electrical and Electronics) receiving the Chancellor Gold Award, Amanda Yap Yi Tong (Chemical Engineering) receiving the Chancellor Silver Award, and Fatin Fakhira Fahrurazi (Information Technology) receiving the Chancellor Bronze Award.

Amni Haslinda Alpandi (Petroleum Engineering) and Arina Kho Chiaw Sen (Drilling Engineering) were awarded the Postgraduate Best Research Award for the Doctor of Philosophy category and the Best Student Award for Master Programme by Coursework, respectively.

KONVOKESYEN CONVOCATION CEREMONY

29-30 October 2023





Graduates Statistics



1,386

Total Graduates

1,074

Bachelor's Degree

198

Master's Degree

114

Doctor of Philosophy

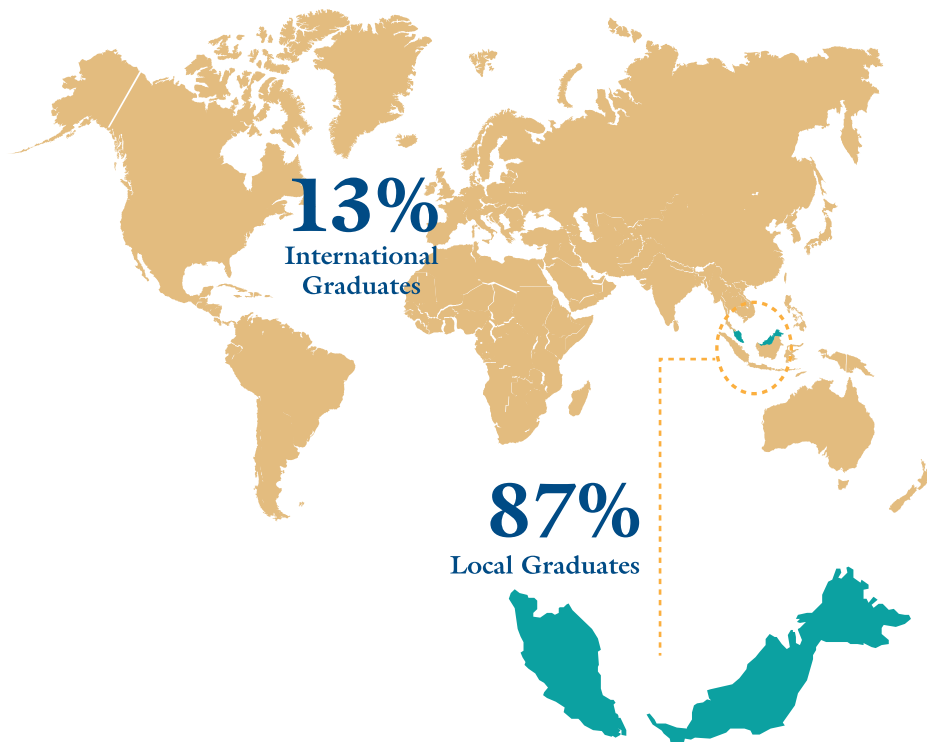


38%

Female



Male

62%

Academic

| Prof Ir Dr Hilmi Mukhtar

Deputy Vice Chancellor Academic





Driven to push the boundaries of academic excellence in 2023, UTP achieved significant milestones that underscore our position as a leader in higher education. Our commitment to lifelong learning has been a key driver in expanding our academic offerings, with a particular focus on our Open and Distance Learning (ODL) programmes. Since their introduction in 2020, these programmes have experienced remarkable growth, reflecting the increasing demand for flexible, accessible education options.

In three years, we have doubled our programme offerings, growing from 6 in 2020 to 12 in 2023. Concurrently, we witnessed a fivefold increase in our active student population, rising from 48 students in 2020 to 253 in 2023.

Building on this momentum, a landmark development on the horizon is our new Engineering programme, the Bachelor of Integrated Engineering with Honours, in collaboration with Olin College of Engineering, USA, and Singapore University of Technology and Design. Set to launch in 2025, this innovative programme is the first of its kind in Malaysia. It seamlessly integrates non-engineering skills with a holistic educational experience, preparing students for success as a Professional Engineer in an increasingly complex global landscape.

This global perspective is deeply embedded in our campus life, where UTP has evolved into a miniature world society. Our campus community includes individuals from 50 countries, creating a rich, multicultural learning environment. Out of our 7,104 active students, 649 (9%) are international students, while the majority, 6,425 (91%), are local. Our diverse student body is supported by an equally diverse faculty. We have 289 faculty members representing 22 different nationalities, with 22% being international faculty. This multicultural environment prepares our students for global careers and promotes cross-cultural understanding and collaboration, enriching our institution's academic and social fabric.

To further ensure our graduates are future-ready, we have implemented several initiatives that focus on equipping them with the skills and knowledge demanded by the industry. One such initiative is the integration of industry-recognised certification programmes such as Six Sigma and Altair into our curriculum. We are also working towards greater interdisciplinary integration within our curriculum to nurture students' ability to collaborate and work effectively across boundaries.

Our dedication to inclusive education is reflected in our blended and multi-modal delivery, focusing on four key learning approaches: facilitated learning, immersive learning, project/problem-based learning and active learning. These diverse learning approaches cater to different types of learners, and our lecturers serve as facilitators, providing support and motivation throughout the learning process. To support this, UTP has made significant strides in developing a robust digital learning infrastructure that seamlessly integrates with conventional educational methods. At the core of our digital learning ecosystem is a comprehensive Learning Management System (LMS) that supports online courses, blended learning, and active learning. We have also installed four new hybrid classrooms equipped with advanced technology to enhance our hybrid learning capabilities.



As part of our five-year strategic plan focused on digital and immersive learning, we launched the UTP Micro-Credential platform, ULearnPlus. The platform offers a series of micro-credential courses tailored to meet the needs of working professionals and learners, aligning with Shift 9 of the Malaysia Higher Education Blueprint: Globalised Online Learning. Additionally, our campus facilities now include a metaverse lab where students can access VR modules. This resource allows faculty members to incorporate immersive elements into their teaching and learning activities when appropriate.

In 2023, UTP established several new partnerships and collaborations that have greatly enhanced our academic programmes. One notable collaboration is with INSTEP, which provides hands-on training to students. As part of this partnership, 23 Electrical and Electronic Engineering students attended a four-day IECEx Unit Ex000 Competency Training Programme & Assessment at INSTEP, enhancing their competency and capability.

Our partnership with OpenLearn represents a key collaboration, providing the platform for our micro-credential offerings. Through this alliance, UTP has launched UTP Micro-Credential, a learning programme that supports lifelong learning and provides opportunities for individuals, educators, and the workforce to pursue competencies and knowledge. The micro-credential modules are designed for bite-sized learning, offering flexibility and manageability, allowing learners to complete personalised learning modules anytime, anywhere, at their own pace. Moreover, our Memorandum of Understanding (MoU) with AntsBees Sdn Bhd (AntsBees) equips our students and staff with expertise in specialised domains of Industry 4.0, such as Big Data Analytics, Project Management Data Analysis, Artificial Intelligence, and Digital Marketing.

Internally, we are committed to ensuring our faculty remains at the forefront of their fields. Our Adjunct Lecture and Professorial Lecture, facilitated by the Centre for Academic Development and Excellence (CADEX), invites industry experts to share insights, keeping our academics up to date with the latest trends. Over the past year, UTP faculty members have achieved numerous notable accomplishments and received prestigious awards, reflecting our commitment to academic excellence and innovation.

UTP was shortlisted for the prestigious Teaching and Learning Strategy of the Year 2023 award by Times Higher Education, following our success as the Bronze winner for Science of Learning in the QS Wharton Reimagine Education award. In December 2023, UTP's Petroleum Engineering programme received a Certificate of Recognition as the best Petroleum Engineering programme in Malaysia by the Society of Petroleum Engineers. Individual faculty members have also garnered accolades, including Dr AKM Eahsanul Haque from the Geoscience Department, who has been honoured as Asia's Most Promising Scientist by the Asia Awards. This prestigious recognition celebrates Dr Haque's outstanding contributions to geosciences, particularly in reservoir characterisation, 3D subsurface geomodelling, and geoscience project management. Associate Professor Ir Dr Irravan Elamvazuthi has also been named a 2023 Top Research Scientist Malaysia by the Academy of Science Malaysia.



Another proud moment for UTP was the inaugural graduation of our first batch of Bachelor of Business Management (BBM) students, where a total of 18 students successfully completed their studies and graduated in 2023. We are thrilled to report that the graduate employability rate for this cohort stands at an impressive 94.1%, with our alumni now making their mark across various industries, including oil and gas giants like PETRONAS and SLB, as well as renowned professional services firm Deloitte. The Centre for Advanced and Professional Education (CAPE) has also demonstrated significant growth, with a 26.19% year-on-year increase in short courses offered. Our robust team of trainers, consisting of 298 licensed educators with 95 currently active, positions us well to meet diverse learning needs.

Throughout 2023, UTP's academic divisions have significantly contributed to the university's sustainability and social responsibility initiatives. We have introduced renewable energy with a focus on sustainability for engineering students. As sustainability is a crucial programme outcome outlined by the accrediting body, UTP has embedded the concept throughout its curriculum, starting with the compulsory first-year subject, Introduction to Oil & Gas & Sustainability.

For the upcoming year, our academic priorities will focus on evolving our educational approach to meet the changing needs of our students and industry partners. The anticipated launch of our Integrated Engineer of the Future (Bachelor of Integrated Engineering) programme marks another milestone in our journey towards innovative and comprehensive engineering education.

UTP is dedicated to enhancing accessibility and flexibility in our educational delivery. We understand that the challenges in teaching and learning require us to be adaptable, offering high-quality education anytime and anywhere across various modes of delivery. This commitment ensures that our students can access world-class education in ways that suit their individual needs and circumstances.



A photograph showing three students sitting around a light green table in a study area. A female student wearing a blue hijab is leaning over a laptop, pointing at the screen. Two male students are seated opposite her, looking at open books and papers. The table is cluttered with books, papers, and a smartphone. The background is a plain wall.

Furthermore, we recognise the critical importance of maintaining curriculum relevance in a rapidly evolving global landscape. We incorporate engineering, science, and technology with humanities and social science to nurture graduates who put humanities at the core of their problem-solving process. This holistic approach, combined with our commitment to continuous improvement and adaptation, reinforces our confidence that UTP will maintain its position as a leader in higher education.

Through these concerted efforts, we are poised to produce graduates who are not only technically proficient but also agile, creative, and socially responsible. These future leaders will be well-equipped to address complex global challenges and shape the future of industry and society.

Prof Ir Dr Hilmi Mukhtar

Deputy Vice Chancellor Academic

Launching the Grand Challenges Scholars Programme

UTP has become the second institution in Malaysia to join the Grand Challenges Scholars Programme (GCSP), endorsed by the National Academy of Engineering (NAE) United States. The programme aims to prepare the next generation of students to tackle complex global challenges in the 21st century.

By joining the GCSP network, UTP gains opportunities to collaborate with world-renowned engineering institutions, engage in meaningful activities that offer global learning opportunities, foster holistic development in the engineering industry, and contribute to the nation at large.

UTP will enrol up to five outstanding students each semester as GCSP candidates, who will be assigned mentors and engage in Grand Challenge-related research focused on UTP's mega themes of Energy Sustainability and Smart Communities. Candidates will develop competencies in five key areas: Talent, Multidisciplinary, Viable Business/Entrepreneurship, Multicultural, and Social Consciousness. Upon satisfying these competencies and other qualifying requirements, candidates will graduate as globally recognised Grand Challenge Scholars.

The students selected as the first batch of UTP GCSP candidates were Nur Batrisyia Kamal Zamshol Kamal and Tang Siew Mun (both from the Chemical Engineering programme) as well as Ahmad Danish Danial Ahmad Nadzri of Civil Engineering.

The launching ceremony was graced by UTP Deputy Vice Chancellor Academic Professor Ir Dr Hilmi Mukhtar and UTP Dean of Faculty of Engineering Associate Professor Ir Dr Rosdiazli Ibrahim, along with a recorded message from Katie Evans, GCSP Network New Programmes Committee Chair. The event also featured an Engineering Forum entitled 'The Impact of the SDGs on Future-Proof Graduates', with distinguished panellists from industry and academia.





Connecting Academia and Industry with ULearnPlus

UTP has launched the ULearnPlus platform, offering a series of micro-credential courses designed to meet the dynamic needs of working professionals and learners. The launch, officiated by UTP Vice Chancellor, Professor Dato' Ts Dr Mohammed Ibrahim Abdul Mutalib, marks a significant milestone for UTP as a learning provider for micro-credentials.

The micro-credential modules on ULearnPlus are designed to align with industry demand, supporting professionals and learners in acquiring new skills and knowledge for career advancement, fulfilling CDP points requirements, or obtaining professional certifications. This initiative encourages collaboration between academia and industry in developing relevant and applicable modules for current and future industry needs.

The successful implementation of the micro-credential initiative was due to the collaborative effort of the project team, led by Associate Professor Dr Nurhayati Mellon, Centre for Academic Excellence (CAEx), and the course developer team, led by Dr Amutha Nagarajan, Manager, Centre for Excellence in Teaching and Learning (CETaL), as well as the pioneer module developers.



UTP-KOSEN International Symposium on Innovative Engineering 2023

UTP and Nine National Colleges of Technology in the Kyushu-Okinawa Region, Japan (KOSEN), successfully co-hosted the seventh year of the International Symposium on Innovative Engineering (ISIE) 2023. The participating KOSEN colleges include Kurume National College of Technology, Ariake National College of Technology, Kitakyushu National College of Technology, Sasebo National College of Technology, Kumamoto National College of Technology, Oita National College of Technology, Miyakonojo National College of Technology, Kagoshima National College of Technology, and Okinawa National College of Technology.

The hybrid event, held both at UTP and online, brought together esteemed academicians, researchers, and students from both institutions to present their research results and share information on the most recent and relevant innovations in engineering and technology theories and practices.

The symposium featured a series of special lectures delivered by two renowned academicians and 24 presentations from UTP and KOSEN faculty and students, covering a multitude of topics of interest. The collaboration between UTP and KOSEN through this symposium has contributed significantly to the enhancement of UTP and KOSEN's academic and research capabilities. Moreover, it aligns with the objectives and goals of their respective internationalisation strategies, further strengthening the partnership between the two esteemed organisations.





International Process Control Competition (IPCC) 2023

The 3rd International Process Control Competition (IPCC) 2023 celebrated a significant milestone in increasing appreciation among students in the Southeast Asian region for process control and CO₂ decarbonisation issues. The competition, held in conjunction with the PETRONAS Process Control CoP Forum, aligns with PETRONAS' Moving Forward Together (MFT 50.30.0) targets, focusing on value creation, growth in non-traditional business, and sustainability towards achieving Net Zero Carbon Emissions (NZCE) by 2050.

With the theme “CO₂ Decarbonisation Efforts: Minimising Emissions through Process Control, Optimisation or Digitalisation,” IPCC 2023 highlighted the importance of addressing climate change and reducing carbon emissions through innovative and long-term solutions. The competition served as a platform for researchers, industries, and students to share their latest ideas and innovations in the field of decarbonisation and sustainability, bringing together the best minds to exchange ideas, share breakthroughs, and collaboratively tackle the challenges of our time.

IPCC 2023 aimed to inspire undergraduates and postgraduates in the Southeast Asian region to delve into the crucial field of process control and modelling in the context of CO₂ decarbonisation concerns. The event celebrated human innovation and teamwork, bringing together diverse talents to revolutionise process control for the betterment of society.







International Conference on Advancing and Redesigning Education (ICARE'23)

UTP hosted the second edition of the International Conference on Advancing and Redesigning Education (ICARE'23) on 21 November 2023. The conference, an initiative by the Alliance of Government Linked Universities (GLU) and co-organised by Majlis Ketua-ketua E-Pembelajaran IPTA Malaysia (MEIPTA), focused on the theme “Reshaping Future Education Through Digital Transformation.”

The event was officiated by Professor Dato’ Dr Mazliham Mohd Suud, Chairman of GLU, and President and Chief Executive Officer of Multimedia University, representing YB Dato’ Seri Mohamed Khaled Nordin, Minister of Higher Education.

ICARE'23 brought together approximately 150 participants and delegates, including academics, researchers, interest groups, and experts from various fields. The conference aimed to explore the potential for educators to redefine the roles of instructors and learners, rediscover the values that guide pedagogies and curricula, and reimagine learning environments in the post-pandemic era.

The event emphasised the need for higher education institutions to prepare for future learners, who are not only digital natives but also AI natives. Curricula must be more engaging and interdisciplinary, and promote digital collaboration and digital literacy to meet future market requirements.

Putra InnoCreative Carnival in Teaching and Learning (iPicTL)



Universiti Putra Malaysia (UPM) has been organising the Putra InnoCreative Carnival in Teaching and Learning (iPicTL) since 2018 through its Centre for Academic Development (CADE). The international competition aims to encourage lecturers and students to explore novel approaches to teaching and learning (T&L).

In 2023, iPicTL continued with the theme “Innovative Pedagogies for Resilient Education: Nurturing Tomorrow’s Mind” to further promote the growth and advancement of quality teaching and learning innovations. The event brought educators, researchers, policymakers, students, and the public together to celebrate and showcase exciting achievements in their teaching and learning innovations.

UTP’s representatives showcased outstanding performance at the event, with three gold and two silver medals awarded to the following projects:

NAME	DEPARTMENT	PROJECT TITLE	MEDAL
Ts Dr Sia Chee Wee & Ir Dr M Aslam Md Yusof	Petroleum Engineering	Enhancing Learning Experiences, Engagement and Learning Outcomes through Short-Term Project-Based Learning	GOLD
Nurul Izni Kairi	Centre for Foundation Studies	Enhancing Students’ Cognitive and Affective Skills in Learning Chemistry through Problem-Based Learning and Competition-Based Learning Approaches	GOLD
Noraini Jamaludin	Centre for Foundation Studies	Enhancing Math Education with DESMOS App for Real-World Flood Scenario	GOLD
Mohd Herry Bahador	Centre for Foundation Studies	Active Learning Innovation Improving Business and Technology Skills through Educational Visit to AirAsia Academy	SILVER
Zuraini Hanim Zaini & Afnan Amirruddin	Centre for Foundation Studies	Improving Programming Proficiency through VEE and Game-Based Learning	SILVER

Research, Innovation & Commercialisation

Prof Ir Dr Mohd Shahir Liew

Deputy Vice Chancellor

Research, Innovation & Commercialisation



In 2023, UTP's Research, Innovation & Commercialisation (RIC) division continued to forge new frontiers in research, aligning with global megatrends and broader industrial and societal needs. We also made significant progress in our key focus areas, encompassing energy transition and sustainability; advanced materials and manufacturing; digital transformation and data science; and environmental conservation and climate change.



By strategically advancing these critical domains, UTP contributed to addressing pressing global challenges while pursuing cutting-edge research and innovation.

UTP achieved several notable milestones in 2023. We maintained our 6-Star Rating for MyRA I and published 760 journal articles, with 491 articles in Q1/Q2 journals and 657 articles with international co-authorship. The total order book for RIC in 2023 reached an impressive RM105.24 million, with RM66.72 million from Technology Research Excellence (TREx) and RM38.52 million from Technology Exploitation and Delivery (TED).

We have also secured RM66.72 million in research grants from 205 new research projects. Additionally, we secured RM33.315 million from consultancy projects and RM5.2 million from the Centre of Advanced Professional Education (CAPE). An impressive 95% of UTP's academicians were involved in research grants, while 57% participated in consultancy, contract research, and training. As of December 2023, UTP had 746 active research grant projects with a total value of RM157.5 million.

Enhancing our research capabilities and global impact, we significantly expanded our regional and international university partnerships. Notable collaborations included the European Horizon with ENSAM, France; International Collaborative Research Fund (ICRF) partnerships with Foundation University Islamabad (FUI) in Pakistan, Prince Sultan University in Saudi Arabia, Alliance University in India, and KPR Institute of Engineering and Technology in India; and collaborations with Universitas Muhammadiyah Surakarta (UMS) in Indonesia, on upscaling programmes.

Additionally, we have engaged in pivotal international funding efforts with UK researchers, such as the International Science Partnerships Fund (ISPF), Leaders in Innovation Fellowships (LIF), and Research and Innovation for Development in ASEAN (RIDA). We also undertook a benchmarking initiative with Nanyang Technological University (NTU), Singapore, to refine our research performance monitoring, particularly in publications.

Our industry collaborations continued to thrive in 2023, as we strengthened our partnerships and undertook projects aligned with our commitment to excellence in education, research, and innovation. One standout partnership was our collaboration with leading industry players in the oil and gas sector, including PETRONAS, which facilitated joint research initiatives, industry-driven projects, and knowledge exchange programmes. We also engaged with government agencies, research organisations, and non-profit institutions to address societal challenges and contribute to national development agendas in renewable energy, environmental conservation, and digital innovation.

At UTP, we recognise the crucial role of interdisciplinary research in tackling complex problems, fostering innovation and creativity, integrating knowledge from different fields, and enhancing researchers' career development. As such, we facilitated interdisciplinary research through initiatives such as interdisciplinary research centres, funding opportunities for interdisciplinary projects, and interdisciplinary academic programmes. To ensure the highest standards of research, UTP upholds ethical standards and integrity in its research practices through established university research committees, as well as transparency and accountability measures.

Building on our strategic collaborations and projects, UTP has made substantial upgrades and enhancements to our facilities and technologies. We invested in upgrading laboratory facilities across disciplines, established specialised research centres, enhanced ICT infrastructure, and deployed research collaboration platforms. Furthermore, our innovation hubs and maker spaces have been outfitted with new prototyping tools and the introduction of mentorship and training programmes to support aspiring innovators and entrepreneurs.

Over the years, UTP has had several support structures in place to facilitate the transition of research breakthroughs from the lab to the marketplace. These include Technology Transfer Offices (TTOs), incubators and innovation ecosystems, industry partnerships, funding opportunities, intellectual property policies, and networking events. By leveraging these support structures, UTP helps researchers translate their discoveries into real-world applications and contribute to economic growth and societal impact.



A photograph of a man with dark hair, wearing a white lab coat over a blue shirt and clear safety glasses. He is looking down at a piece of equipment in a laboratory setting. A teal circle is overlaid on the bottom right of the image.

UTP's commitment to sustainability is evident in its research initiatives centred around two mega themes: Smart Communities and Energy Sustainability. In the realm of smart communities, UTP's Institute of Self-Sustainable Building (ISB) is at the forefront, focusing on green and clean technologies for buildings. This includes research into energy-efficient materials, water conservation, and waste management, all aimed at enhancing community well-being. In terms of energy sustainability, UTP has implemented the largest single solar rooftop in Malaysia, showcasing its commitment to renewable energy and carbon footprint reduction. Additionally, the university engages in research and development projects to further integrate sustainable energy solutions across various sectors.

To foster sustainability and social responsibility within its student body and faculty, UTP incorporates these principles into its curriculum, encourages community engagement, promotes green campus initiatives, and involves students in cutting-edge research aimed at developing sustainable technologies and practices. By instilling a culture of sustainability and social responsibility, we aim to empower our students and faculty to become responsible global citizens who contribute to building a better future.

UTP's RIC division plans to undergo restructuring in 2024 to align with the university's aspirations and prioritise pioneering research areas. The division will consist of TREx, TED, and three Research Institutes: the Institute of Smart & Sustainable Living (ISSL), the Institute of Emerging Digital Technologies (EDiT), and the Institute of Sustainable Energy (ISE). With renewed focus, we plan to expand into several research areas, including sustainable living, infrastructure excellence, intelligent analytics, digital frontiers, renewable energy, decarbonisation, and subsurface resources.

Moving forward, the UTP RIC division aspires to collaborate with industry partners, government agencies, and academic institutions to drive research excellence and innovation in these areas. Through multidisciplinary approaches and cutting-edge technologies, we aim to make significant contributions to addressing societal challenges and driving economic growth.

Prof Ir Dr Mohd Shahir Liew

Deputy Vice Chancellor

Research, Innovation & Commercialisation

Accolades & Achievements

CONGRATULATIONS!

MTE IIA 2023

MALAYSIA TECHNOLOGY EXPO
INTERNATIONAL INNOVATION AWARDS & EXPO

Gold

AP. Ta. Dr. Said Jaidid
Abdulkadir
Smart Weld Defect Detection
and Interpretation via
Artificial Intelligence (AI)

Special Award
MTE IIA 2023 International Innovation Award

Dr. Bingi Sai Venkata Naga
Kishore
Induction Motor Bearing
Fault Detection Device
(IMBIT)

Silver

AP. Dr. Bawadi Abdullah
Green Magnetic Nano-
Composite Supercapacitor

Dr. Hayyiratul Fatimah bt
M. Zaid
Development of
Standalone Solar Powered
Electricity Panel

Bronze

Dr. Madiah Omar
Digital Twin and
Predictive Maintenance
Software of Dry-Low
Emission Gas Turbine

Dr. Bingi Sai Venkata
Naga Kishore
Induction Motor Bearing
Fault Detection Device
(IMBIT)

AP. Dr. Bhajan Lal
Innovative CO₂
Hydrogen-based
Desalination Technology

Ir. Ta. Dr. M. Bushid B
Shamsudin
Multi-Nutrient Enriched
Slow-Release Fertilizer
(MNSRF)

Ta. Dr. A. Halim B. A. Latiff
Enhanced Extended
Elastic Impedance
Immerison for Reservoir
Petrophysical Prediction

Dr. Mykara Eissa
Mahyuddin Elhaj
Sand Erosion and
Corrosion Software
(SECS)

AP. Dr. M. Azmi B. Bustam
@ Khalil
Hydrogen Sulfide
Conversion at Ambient
Temperature by Metal-
Containing Ionic Liquids

Brought to you by

MTE 2023
Malaysia Technology Expo™
A Leading Global Innovation and Technology Event

TREx
TECHNOLOGY RESEARCH EXCELLENCE

UTP
UNIVERSITI TEKNOLOGI PETRONAS

CONGRATULATIONS!

MTE SDG 2023

MALAYSIA TECHNOLOGY EXPO
SDG AWARDS & EXPO

Outstanding Award

Ta. Dr. Chairulrahmana Jahan
Edina Wanasucipto (EWD)
as Carbon Dioxide Gas
Absorbent

Ta. Dr. Azzina Abd. Aziz
Hafik - Smart Wireless
Detection System using
Machine Learning

Gold Award

AP. Ta. Dr. Nur Anissa Wan Zamei
Predictive Analysis Determination using
Asset Management (APAM) System
Selecting Best Fit Life Extension
Strategy for Aging Offshore Asset

Silver Award

Dr. Dr. Azzina Abd. Aziz
Hafik - Smart Wireless
Detection System using
Machine Learning

AP. Dr. Ismail bin Mohd
Saad
Silicate Scale Inhibitor

Dr. Chai Yee Pin
LSSW Low Transition
Temperature Wettable (LSSW-
LTPW) Grease Solvent for
Slime Disaggregation

Bronze Award

Ta. Dr. Chairulrahmana Jahan
Edina Wanasucipto (EWD)
as Carbon Dioxide Gas
Absorbent

Brought to you by

TREx
TECHNOLOGY RESEARCH EXCELLENCE

MTE 2023
Malaysia Technology Expo™
A Leading Global Innovation and Technology Event

Sustainable Development Goals International Innovation Awards and Expo

CONGRATULATIONS!

ITEX'23

ITEX 2023 WINNERS

Gold Medal

Prof. Dr. Nasir Staffiq
GepCEM Analyser

Dr. Modiah Omar
Leaf Planning Software for NO_x and CO Emission Reduction

AP Dr. Nooreen Izza Bt Arshad
Immersive & Transformational Virtual Instructor-Led Training Environment

Prof. Dr. Faleh Ahmed
Intumescent Fire-Retardant Coating For Structural Safety (InTexCo)

AP Ir. Dr. Yeong Yin Fong
High Fax ZIF/TBDM For Gas Separation

AP Dr. Oh Pei Ching
Superhydrophobic Self-Clean Membrane (SHCMembrane)

Dr. Khalid Alaskar Jumbri
Bio-based Corrosion Inhibitor For Organic Acid Corrosion Mitigation

Dr. Norwalya Jusoh
Maximization Of Waste Into Biofuels Via Effective Of Co₂ Capture By Means Of Lignin T. Biocatalytic Composite Membrane

Silver Medal

AP Dr. Hisham Siddig Alkhasan Alkhasan
A Novel Artificial Intelligence-Based Model For Pipeline Free-Span Prediction

AP Ts Dr. Said Jaidi A. Kadir
Smart Weld Defect Detection and Interpretation System

Dr. Wasan Salah Alsaloul
Smart Steel Reinforcement Evaluation Model (SSREM)

Dr. Hayyatal-Fatimah Bt M. Zaid
Development of Standalone Solar Powered Electricity Panel

AP Dr. Ahmed Majdi B. A. Kani
Novel Internal Conformal Heating Channel Angel Valve

Ir. Dr. M. Mubarak E. A. Wahab
Silica Gel Extractor for Agricultural Waste

Dr. Ehsan Nibbakht Jarghousyeh
Flexible Sandwich Composite Panel Consisting Of Ductile Engineered Geopolymer Composite (EGC) Core For Multiple Structural Applications

Bronze Medal

Prof. Dr. Tang Tong Boon
Resilience Assessment System For Mind (RASMi) using ECG Neuromarker

Brought to you by

TREx
TECHNOLOGY RESEARCH EXCELLENCE



Loss Prevention Asia 2023 Conference

The Centre for Advanced Process Safety (CAPS) at UTP, in collaboration with PETRONAS Technical Delivery Excellence, successfully organised the third edition of a two-day conference entitled Loss Prevention Asia 2023 (LPA 2023) at the Kuala Lumpur Convention Centre in August 2023.

The conference brought together experts from academia and industry to share their experiences, best practices, and advanced methods in managing human factors and human performance to enhance safety and manage risk. With the theme “Enhancing Human Performance Towards Loss Prevention,” LPA 2023 hosted various panel discussions and keynote sessions by internationally renowned speakers.

Occupational and process safety professionals and practitioners from various organisations and institutions attended the event, exchanging knowledge and fostering substantial collaborations in the field of loss prevention. The conference provided a platform for participants to learn from one another, discuss the latest advancements in the field, and work together towards creating safer work environments.





Momentous Launch of the PETRONAS Security Analytics Lab and Big Data Analytics Book

UTP, together with PETRONAS Group Security, celebrated the official opening of the PETRONAS Security Analytics Lab as well as the launch of the book, Big Data Analytics for Industry Practitioners.

The establishment of the Security Analytics Lab marked a pivotal point in the shared mission to advance the field of security analytics and foster further collaboration between UTP and PETRONAS Group Security. The lab aimed to develop in-house security analytics products that address real-world challenges while serving as a platform for developing local talents and skills in the face of evolving digital threats.

The lab was a direct result of the Collaboration Agreement signed between UTP and PETRONAS Group Security in 2022, which set the framework for executing three vital physical security projects: the Security Risk Assessment & Research/Alert Analytics Application (SRAAS), the Integrated Security Talent Resources System (i-STARS), and the Remote Alarm System for Unmanned Platform. These projects garnered overwhelming interest during the PETRONAS Security Day on 17-18 October 2023 at Galeri PETRONAS, Suria KLCC.

In addition, the launch of the Big Data Analytics for Industry Practitioners book was an outcome of a collaboration between the Centre for Research in Data Science (CeRDaS), UTP, and the Peninsular Malaysia Asset. Written by Associate Professor Ts Dr Izzatdin Abdul Aziz, Associate Professor Ts Dr M Hilmi Hasan, and Associate Professor Ts Dr Jafreezal Jaafar, from UTP, as well as Encik Amir Ali from PETRONAS JV Malaysia, the book shared real industrial case studies on harnessing the power of big data and machine learning for engineers. To date, the book has sold more than 300 copies.





UTP 8th Research Advisory Council Meeting

The 8th Research Advisory Council (RAC) meeting was successfully held and was chaired by YBhg Professor Dato' Ts Dr Mohamed Ibrahim Abdul Mutalib, Vice Chancellor of UTP. Professor Ir Dr Mohd Shahir Liew, Deputy Vice Chancellor of Research, Innovation and Commercialisation, anchored the meeting and provided an overview of UTP's Research, Innovation and Commercialisation (RIC) performance and future prospects.

The meeting, attended by seven prominent industry leaders from Malaysia and international organisations, focused on the theme 'Digital Globalisation of Engineering and Technology.' RAC and RIC members engaged in productive discussions, exchanging ideas, opinions, and proposals to shape UTP RIC's direction in 2024 and beyond. The RAC meeting served as a platform for gathering external insights to strategically develop RIC at UTP and set the course for the future.





Launching the 1st Malaysian-Made PDC Drill Bit

UTP successfully launched the first Malaysian-made Polycrystalline Diamond Compact (PDC) drill bit, named 'Novus Bits'. The launch of Novus Bits resulted from years of dedication, innovation, and perseverance by UTP researchers in close collaboration with industry partners OMNI and Mulk Oil and Gas Synergy Sdn Bhd (MOGS). The development of this homegrown solution demonstrated UTP's commitment to innovation, technological advancement, and reducing dependency on imported drilling equipment.

The achievement was made possible through a Research Collaboration Agreement (RCA) formalised in the previous year, which aimed to jointly develop a partnership model and go-to-market strategy. The launch of Novus Bits aligned with UTP's focus on positioning itself as a cutting-edge Research, Innovation and Commercialisation player, contributing to new knowledge creation and technology development. It also marked a significant step towards UTP's goal of becoming an internationally recognised partner of choice for industry and respected scientific community by 2025.



TechConnect 2023 to Advance Decarbonisation Technology

UTP, in partnership with Malaysia Petroleum Resources Corporation (MPRC) and Malaysian Research Accelerator for Technology & Innovation (MRANTI), successfully co-organised TechConnect 2023, a strategic event that aimed to catalyse advancements and foster vital collaborations in decarbonisation technology. With the theme “Reshaping Tomorrow: Decarbonisation for a Sustainable Future,” the event served as a platform to showcase UTP’s pioneering strides in cutting-edge decarbonisation technology.

TechConnect 2023 featured a series of engaging sessions led by industry experts and leaders, delving into the challenges of decarbonisation and presenting practical solutions.

During the Pitch & Chill session, 14 innovators presented their groundbreaking technologies to a distinguished panel comprising members from MPRC, MRANTI, and the Malaysian Technology Development Corporation Sdn Bhd. This session provided an opportunity for innovators to refine their strategies and establish connections with potential investors, accelerating the development and widespread adoption of their technologies.

TechConnect 2023 demonstrated the collective determination and synergy of industry leaders, innovators, and academia in driving transformative change. The upcoming TechConnect event aims to showcase cutting-edge innovations addressing global challenges, serving as a platform for leading minds to unveil tomorrow’s solutions and celebrate the tangible impact of technology on both industry and society.



Patents Granted

MAIN INVENTOR	DEPARTMENT	PATENT NAME
Assoc Prof Dr Mohd Azmi Bustam @ Khalil	Chemical Engineering	System for Separation of Carbon Dioxide from High Pressure Gas Stream
Assoc Prof Dr Lau Kok Keong	Chemical Engineering	System for Separation of Bulk Acid Gas and Heavy Hydrocarbon Vapor from Gas Stream using a Membrane
Prof Dr Azmi Mohd Shariff	Chemical Engineering	Process and System for a Bench-Scale Absorption at Low and High Pressure Conditions
		Operating Procedure Management for Process Plant Operations and IoT Based Systems for Managing the Same
		Emergency Planning and Response Management System And Method
		An Improved Method for Synthesizing Metal Organic Frameworks
Assoc Prof Dr Bawadi Abdullah	Chemical Engineering	Synthesis of Supported Transition Metal Based Catalyst in Ionic Liquid for Hydrocarbon Production
Assoc Prof Dr Anita Ramli	Chemical Engineering	Method of Producing Hydrocarbons by Oxidative Coupling of Methane Using Water
		Catalysts for Oxidative of Methane Under Nearcritical Water
		Zeolitic Reforming Process for Naphtha Upgrading
		A Method of Producing a Diol from Renewable Resources
Dr Tay Wee Horng	Chemical Engineering	Ultrasonic Agitator Comprising Multilayer Transducers for Gas Separation System and Method Thereof
Assoc Prof Dr Bashar S Mohammed	Civil Engineering	Geopolymer Mortar and Method Thereof
Prof Dr Shamsul Rahman M Kutty	Civil Engineering	Multi-stage Biological Reactor for Maximum Treatment of Wastewater
Dr Husna Takaijudin	Civil Engineering	Module in Bio-ecological Drainage System in Urban Drainage Management
Assoc Prof Ts Dr Noor Amila Wan Zawawi	Civil Engineering	Steel Beam Structure Having Enhanced Fire Withstanding Capability
Likun Xia	Electrical & Electronics Engineering	Methods to Perform Behavioral Modeling (VHDL-AMS) in Analogue Circuits and Systems
Assoc Prof Ir Dr Irraivan Elamvazuthi	Electrical & Electronics Engineering	System for Multi-Objective Optimization of Production of Syngas
Dr Madihah Osman	Electrical & Electronics Engineering	A Method of Detecting Bearing Defects in an Induction Motor
Assoc Prof Ir Dr Rosdiazli Ibrahim	Electrical & Electronics Engineering	A Wireless Hybrid Simulator

MAIN INVENTOR	DEPARTMENT	PATENT NAME
Assoc Prof Dr Ibrahima Faye	Electrical & Electronics Engineering	Modified Bayesian Based Technique for Brain Source Localization using M/EEG Signal and Method Thereof
Assoc Prof Dr Vijanth Sagayan Asirvadam	Electrical & Electronics Engineering	Human Visual Perception and Cognition to Luminance Changes by Analyzing Variation in Evoke Potentials to Chromatic Stimuli
		A Method of Optimizing Surveillance Camera Placement
Assoc Prof Ts Dr Mohamad Naufal Mohamad Saad	Electrical & Electronics Engineering	Monitoring of Vegetation Near Power Transmission Poles Using Satellite Radio Imagery Based on Sparse Representation
Cheab Sovuthy	Electrical & Electronics Engineering	Systems & Methods of Waveguide Filter
Dr Soeung Socheatra	Electrical & Electronics Engineering	Microwave Multiband Filter
Prof Dr Noorhana Yahya	Fundamental & Applied Sciences Department	Method and System for Enhanced Recovery of Oil from a Subterranean Oil Reservoir
		Process for Synthesis of Urea and Ammonia using Magnetic Nanowires
Assoc Prof Dr Ibrahima Faye	Fundamental & Applied Sciences Department	Reference-Free Hybrid Method for Reduction of Ballistocardiogram Artefact from Electroencephalography Data
Dr Ho Yeek Chia	Fundamental & Applied Sciences Department	Glycerol-Mediated Synthesis of Visible-Light Active Black Titania Photocatalyst for Photodegradation of Phenolic Compounds in Treated Pome
Deva Prasad Ghosh	Geoscience Department	Method of Identifying Overpressure Mechanisms and Top of High Overpressure Zone using Acoustic Impedance
		Method of Improving Seismic Resolution
Dr Dher M Badri Albarody	Mechanical Engineering	Flexible Thermosetting Pipe
		A Cover
Mohd Syaifuddin Mohd	Mechanical Engineering	Method for Simulation and Control of the Parallel Slit Vehicle System
Assoc Prof Dr Ahmad Majdi Abdul Rani	Mechanical Engineering	Sprocket Ring Chain
Assoc Prof Dr Syed Gilani	Mechanical Engineering	A Wind Driven Turbine
Mohd Faizairi Mohd Nor	Mechanical Engineering	A System of Converting Poultry Sludge into Solit Fuel for Heating Applications
Dr Mior Azman Meor Said	Mechanical Engineering	Self Cleaning Diesel Particulate Filter by Microwave Assisted Induction Heating
Prof Ir Dr Shaharin Anwar Sulaiman	Mechanical Engineering	Device For Compressibility Determination of Gelled Waxy Crude Oil in Pipelines
Prof Dr Faiz Ahmad	Mechanical Engineering	A Method of Producing Graphene Reinforced Metal Composite
		A Method of Grafting Metallic Species on Graphene Nanoplatelets
Abdul Azeez Abdu Aliyu	Mechanical Engineering	System and Method for Simultaneous Machining and Coating Implants

Patents Filed

MAIN INVENTOR	DEPARTMENT	PATENT NAME
Dr M Rashid Shamsuddin	Chemical Engineering	Multi-Nutrient Enriched Slow-Release Fertilizer (MNSRF)
Khairiraihana Johari	Chemical Engineering	Adsorbent Having Tunable Physical and Chemical Properties for Carbon Dioxide Removal and Method Thereof
Ts Dr Teh Hee Min	Civil Engineering	A Floating Breakwater
		A Caisson Breakwater
Assoc Prof Dr Manzoor Ahmed Hashmani	Computer & Information Sciences	Method of Tracking Supply Chain of Food Product with Data Transparency and Immutability
Assoc Prof Ir Dr Nursyarizal Mohd Nor	Electrical & Electronics Engineering	Standalone Utility Pole
		Automatic Power Management System (Auto-P)
Prof Tang Tong Boon	Electrical & Electronics Engineering	System and Method for Productivity Analysis
Assoc Prof Dr Ahmad Majdi Abdul Rani	Mechanical Engineering	Gasket Inspection Gauges

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MAIN AUTHOR	INSTITUTE	TITLE
Hamzah Sakidin	Institute of Autonomous System for Autonomous Facilities	Simpler UNBab hydrostatics mapping function model for Global Positioning System tropospheric delay
Dr Sai Venkata Naga Kishore Bingi	Institute of Autonomous System for Autonomous Facilities	foNN - A Prediction and Forecasting Application Using the Concepts of Fractional Calculus and Neural Networks
Wesam S. A. Alaloul	Institutes of Autonomous System for Autonomous Facilities	Smart Rebar Evaluation Model (SREM)
		Construction Rates Forecasting Model
Assoc Prof Ts Dr Noreen Izza Arshad	Institute of Autonomous System for Autonomous Facilities	Immersive & Transformative Virtual Training and Learning Platform
Assoc Prof Dr Manzoor Ahmed Hashmani	Institute of Autonomous System for Autonomous Facilities	Blockchain Based Middleware for Applications to Transparently Track Supply Chains (B-MATTS)
Prof Dr Tang Tong Boon	Institute of Health & Analytics for Personalised Care	Productivity Nominal Analytics (PNA)
		Convolutional Neural Network based Polyps Detection System
Dr Azrina Abd Aziz	Institute of Health & Analytics for Personalised Care	Heart Disease Detection System using Machine Learning (HeDiD)
Assoc Prof Ts Dr Noor Amila Wan Zawawi	Institute of Self-Sustainable Building	Decommissioning by Reefing in Malaysia: A Novel Approach to Evaluating Aging Offshore Platform Reefing Potential
		Hypothesis Testing for Risk Ranking Determining Significant Difference Between Pre and Post Mitigation Plan
Ir Dr Muhammad Rashid Shamsuddin	Institute of Self-Sustainable Building	Virtual Reality (VR) Teaching Module for Reverse Osmosis Water Treatment Process

Trademark

PROJECT LEADER	INSTITUTE	TITLE
Assoc Prof Ir Dr Nursyarizal Mohd Nor	Institute of Autonomous System for Autonomous Facilities	Automatic Power Management System (AUTO-P)
Muhamad Hafiz Abd Latif	Institute of Health & Analytics for Personalised Care	Productivity Nominal Analytics
Dr Numair Siddiqui	Institute of Hydrocarbon Recovery for Enhanced Oil Recovery	Fine Depth
Prof Ts Dr Shahrina Md Nordin	Institute of Self-Sustainable Building	LINAWA
		ET-MACe
Assoc Prof Ts Dr Noor Amila Wan Zawawi	Institute of Self-Sustainable Building	IMA
Intan Baizura Baharuddin	Universiti Teknologi PETRONAS	UToPIA

Licensing and Commercialisation

In 2023, UTP successfully commercialised two innovative products: the Bio-Coal Pellet and the PDC Drill Bit, both of which have the potential to revolutionise their respective industries.

The Bio-Coal Pellet, developed in collaboration with ANFA Renewables, is a groundbreaking fuel pellet made from local biomass such as empty fruit bunches (EFB) and bamboo. By combining the existing Thermo-catalytic Conversion process with ANFA Renewables' proprietary catalyst, the ANFA Advanced Fuel (AAF) pellet boasts hydrophobic properties that complement conventional coal. Remarkably, the AAF pellet produces reduced CO₂ emissions by an impressive 80% compared to traditional coal, making it a significant step towards more sustainable energy production.

UTP's partnership with Mulk Oil and Gas Synergy Sdn Bhd (MOGS) and OMNI Oil Technologies has yielded the first Malaysian-made Novel Spiral Track Gage Polycrystalline Diamond Cutter (PDC) Drill Bit. This cutting-edge drill bit features an impact-resistant PDC cutter to minimise breakage during transitions from soft to hard formations, an extra row in the cutting structure for enhanced durability, and a depth-of-cut bullet to limit cutter aggressiveness and reduce vibration. These innovative features promise to greatly improve drilling efficiency and performance, setting a new standard in the drilling industry.

Student Affairs

| **Prof Ir Ts Dr Nor Hisham Hamid**
Deputy Vice Chancellor Student Affairs





As I reflect on the journey of our Student Affairs (SA) team in 2023, I am filled with pride and excitement. At UTP, we aspire to create an enriching, rewarding, and transformative learning and living experience for our students. This vision supports our mission of nurturing global graduates who are academically excellent and well-rounded individuals prepared to make a positive impact on the world. This year, I have seen that dream come to life in ways that have surpassed our expectations.

Our students have taken centre stage on national and international platforms, bringing home accolades across various domains, including sports, arts, innovation, entrepreneurship, volunteerism, and leadership. We have celebrated achievements, such as Gold for the Cheonan World Dance Festival, Best Position Paper Award for ASEAN Political-Security Community (APSC), Champion for Debat Antirasuah IPT, Champion for MASISWA Zon Utara, Champion and Second Runner Up in the Southeast Asia Tech Hackathon 2023, Champion in AGRINXT 2023, and Best Paper for TECHNOVIT INDIA 2023.

But beyond the trophies and certificates, what truly warms my heart is the ecosystem we have cultivated. Our commitment to providing a transformative experience extends beyond accolades to comprehensive support systems and improved campus facilities.

Under the Student Support and Advocacy (SSA) unit, the SA team expanded the portfolio of Tabung Kebajikan Pelajar (TKP) by partnering with Tabung Kebajikan Zakat, increasing the fund from RM50,000 to RM100,000 and broadening its scope to cover 11 areas of financial need. In addition, the SSA office at Pocket D was remodelled into a co-working space for staff and students, fostering positive collaboration. The V5 café was also renovated to provide additional seating and activity space for students at night, making the living spaces more vibrant and welcoming.

While these improvements significantly enhanced student support and campus facilities, our journey has not been one without challenges. One key issue was the lack of an integrated digital platform for student data and automation in processes, leading to manual work and slower service delivery. With the help of our DigIT team, we have been crafting in-house initiatives and working on end-to-end applications and systems to improve overall service delivery to stakeholders.

The heart of our campus beats strongest when our students' voices are heard. Hence, we have amplified those voices like never before. For instance, a Student Affairs Townhall was held, which allowed for direct communication between the SA management and students and disseminated important updates related to student affairs services, programmes, policies, and initiatives. The Student Representative Council (SRC) was not only empowered to become the highest student council but was also involved in the decision-making process that led to this change. This participatory approach extends to our diversity and inclusion efforts, where students are actively involved as partners in new initiatives and solutions.

Mental health support for our students remains a priority in 2023. UTP's Psychological and Counselling Services (PCS) continue to provide various services and programmes to enhance mental health stability, emotional resilience, and behavioural maturity. From visibility campaigns to community engagement initiatives, PCS strives to elevate mental health awareness and the importance of mental well-being. Furthermore, PCS has also joined hands with the Centre for Academic Excellence (CADEX) for low achievers' management, the Centre for Student Development (CSD) for the First Year Experience Programme, and academic departments for programmes like 'Towards Community Wellness' and 'Start Right End Bright'. This holistic approach is more than just about managing challenges – it is about empowering our students to thrive in their studies and life.

We have also continued to promote diversity and inclusion by involving 'students as partners' in new initiatives, solutions, application development, and refurbishment, assisted by the SRC and other student support groups. Student Affairs has facilitated over 350 student-led programmes organised in 2023, including the Sem'PURE'na Clean Water Project in Omdal Island, Sabah; IoT Smart Aquaponic in Malang, Indonesia; and EmpowHER in Jawa Timur, Indonesia.

As we prepare our students for the workforce, I am thrilled to report a remarkable 92% graduate employability rate within six months of completing studies. All 1,032 of our students secured internships, with 87% placed in Government-Linked and Multi-National Companies across key sectors like Oil & Gas, Manufacturing, and Information, Communication & Technology. Our Career Development Office also continuously adapts to the changing job market by organising networking events, establishing industry relationships, and offering crucial skill development workshops. These efforts ensure that UTP graduates are well-prepared for the evolving job market and equipped with relevant competencies for post-graduation employment.





Campus safety and security have seen significant enhancements this year. We have taken a comprehensive approach, combining increased security measures with awareness campaigns on both physical and mental safety. In collaboration with the Royal Malaysia Police (PDRM), UTP organised informative talks for scam awareness. The Security Services Department has also implemented stricter measures, including increased night patrols to monitor student activities after midnight, thorough entrance and exit inspections, and enhanced traffic enforcement.

The SA team is committed to elevating the student experience at UTP. Our vision encompasses several key areas: boosting student success and retention, creating a more inclusive campus environment, nurturing strong leadership and life skills, and deepening student engagement with our community. Embracing a mix of strategies, we are harnessing the power of data to inform our decisions and integrating cutting-edge technology to enhance communication and resource accessibility. We also work hand-in-hand with academic affairs and other departments to support our students' mental health and engage them in campus-wide sustainability initiatives.

Our efforts across all aspects of student life – from academic support to career development, from mental health services to campus safety – contribute to our overarching goal of providing an exceptional student experience, nurturing well-rounded global graduates, and adapting to the ever-changing needs of our students. As we turn the page to a new chapter, we will continue to innovate, collaborate, and prioritise the holistic development of our students, ensuring that UTP remains at the forefront of higher education.

Prof Ir Ts Dr Nor Hisham Hamid

Deputy Vice Chancellor Student Affairs

UTP Engineers Longest Matchstick Bridge into Malaysia Book of Records

UTP's Civil and Environmental Engineering Department has achieved a remarkable feat by constructing the longest model bridge replica in Malaysia using matchsticks. This outstanding accomplishment has been officially recognised by the Malaysia Book of Records.

The record-breaking bridge, measuring an impressive 30 metres in length, was meticulously crafted using 22,600 matchsticks.





Cascading Success with UTP's Record-Breaking Domino Effect

The American Society of Mechanical Engineers UTP Student Chapter (ASME-UTP-SC) team achieved a monumental milestone by setting a new record in the Malaysia Book of Records for “The Most Tiles Used in Domino Effect.” This remarkable feat was accomplished in commemoration of UTP’s 26th anniversary.

The dedicated team worked tirelessly to construct an awe-inspiring 34,567 domino tiles, overcoming numerous challenges and setbacks along the way. The success of this project can be attributed to the outstanding efforts of the high committees, including Nabilah Hadi Noira, Muhammad Amirul Aiman, Uzair Roslan, and Muhammad Syahmi Mohd Nazri, who worked hand in hand with the Nurin Adriana Nor Ishan, Assistant Project Director. Furthermore, the invaluable support from the team’s supervisor, Assoc Prof Ir Dr Mokhtar B Awang, Student Affairs Division, and the Mechanical Engineering Department played a crucial role in bringing this ambitious goal to fruition.



UTP Debaters Emerge Victorious at MACC Chief Commissioner's Cup

The debate team from UTP achieved a resounding victory in the MACC Chief Commissioner's Cup 2023 Inter-University Anti-Corruption Debate Competition. The final round, held at Universiti Malaysia Sabah, saw the UTP team deliver a compelling defence against the motion on introducing neoliberalism policies to address leakages in government subsidies. Their outstanding performance earned UTP the title of overall champion, while team member Nur Izzah Nasuha Zulmuksah was honoured with the Best Speaker in the Final award. The team's success was celebrated during an awards ceremony, where the Chief Commissioner of MACC, Tan Sri Azam Baki, personally presented the prizes to the UTP debaters.



Jocelyn Teh Earns Top Honours at Intel AI Design Competition

Jocelyn Teh Shuang Ru, an Electrical and Electronics Engineering student from UTP, has achieved remarkable success in the 2023 Intel Building Digital Readiness Program. Organised by Intel Malaysia in collaboration with the Ministry of Communications and Multimedia and CREST, the programme aims to equip youth with AI skills and encourage them to develop innovative solutions that promote long-term competitiveness.

Jocelyn's exceptional talent and innovative mindset have earned her first-place positions in two categories. In the AI Enthusiast above 18 category, she emerged victorious for the second time, showcasing her consistent excellence. Her submission involved developing a machine learning model that intuitively controls prosthetic movement through electroencephalogram (EEG) signals, enhancing user experience and functionality for individuals using prosthetics.

Moreover, Jocelyn's success extended to the AI Impact above 18 category, which recognises individuals or groups who have developed AI-based solutions that generate positive social impact. Her project involved creating a mobile application with a deep learning model that translates American Sign Language (ASL) signs into phrases, empowering hearing individuals to understand ASL without learning sign language.

As a result of her outstanding achievements, Jocelyn earned the honour of representing Malaysia in the Intel AI Global Impact Festival 2023.



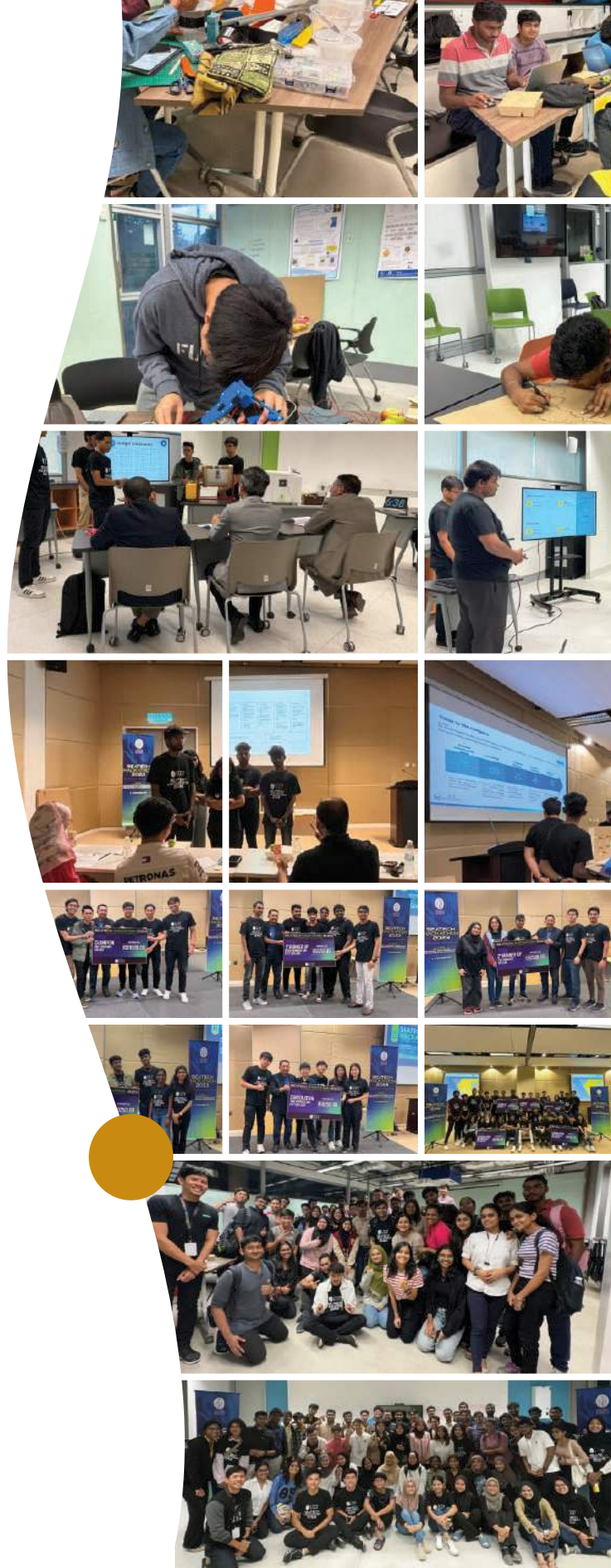
Nurturing Sustainability-Driven Innovators at SEATech Hackathon

UTP's Technopreneurship Office, in collaboration with the Student Mobility Office (CSD) and the Faculty of Engineering, successfully organised the first-ever Southeast Asia Tech Hackathon (SEATech Hackathon) from 3 to 5 November 2023. The event brought together 85 students from UTP and partner universities across Southeast Asia for an intense 52-hour hackathon aimed at developing innovative technological solutions to address sustainability challenges in the region.

The hackathon focused on three critical areas: sustainable water management, resilient coastal management, and revolutionising agriculture for food security. Participants worked in 17 teams to create feasible and scalable solutions, along with business models, to ensure commercialisation and financial sustainability.

The event provided an immersive learning experience for students, fostering entrepreneurial mindsets, teamwork, and cross-cultural collaboration. Participating institutions of higher learning included 25 participants from UTP, 20 participants from Princess of Naradhiwas University (Thailand), 15 participants from Sri Sairam Engineering College (India), and 25 participants from Vellore Institute of Technology (India).

The winning teams showcased their innovative projects, with UTP's "SolarDrop" securing the champion title and a USD 1,000 prize. Sri Sairam Engineering College's "HYPHEN" and UTP's "EutroBuoy" claimed the first and second runner-up positions, respectively. Two consolation prizes were awarded to Sri Sairam Engineering College's "ONE" and UTP's "CaterKiller."



UTP Students Shine on the Global Stage

Student Achievement



Gold Medal 8th Annual Edition
of the International Invention
Competition 2023, Canada

Dr Amni Haslinda Alpani



Representing Malaysia as Top 10 finalists for
the prestigious Global Student Prize 2023

Kenneth Chong

Best Position Paper Award for ASEAN
Political-Security Community and the Best
Strategy Paper Award (Lao PDR) at the
Special ASEAN Foundation Model ASEAN
Meeting Plus China 2023

Wong Soon Ping



Represented Malaysia and won Gold
Prize in the 19th Cheonan World
Dance Festival, South Korea

UTP Performing Arts Group (UPAG) and UTP
Gamelan Group Sanggar Kirana



SEDEX50 Showcases Groundbreaking Projects in Virtual Exhibition

The 50th edition of the Science & Engineering Design Exhibition (SEDEX) was held in 2023 with an impressive virtual showcase of innovative projects from various categories. SEDEX50 featured the work of talented students in the Final Year Project (FYP), Engineering Team Project (ETP), Business Team Project (BTP), and Technopreneurship Team Project (TTP) categories. Throughout the event, attendees had the opportunity to witness the creativity and ingenuity of the participating teams.

SEDEX50 provided a platform for students to showcase their innovative projects and demonstrate their potential to significantly impact various industries through their transformative ideas. The virtual exhibition allowed attendees to engage with the projects and interact with the teams, fostering a spirit of collaboration and knowledge-sharing.





TEC 2023: Empowering Students, Connecting Industries

UTP hosted the highly anticipated Technology, Education & Career (TEC) 2023 career fair on 20-21 September 2023 at the Chancellor Complex. Established in 2001, TEC is a premier platform for students across Malaysia to explore internship and graduate career opportunities while engaging with local and multinational companies.

TEC 2023 witnessed an impressive turnout of students and industry professionals, fostering meaningful connections and knowledge exchange. The event featured a diverse array of prominent companies, including Baker Hughes, PETRONAS, SLB, and RHB Banking Group, each showcasing their unique identity and career prospects through captivating displays and informative materials.

Students actively engaged with company representatives, gaining valuable insights into various industries and potential career paths. The event also provided students with the opportunity to attend career talks and pre-employment workshops, equipping them with the necessary skills to excel in the professional world. One of the highlights of TEC 2023 was the VR booth, offering students an immersive gaming experience and a chance to unwind amidst career-focused interactions.

Creating Community Impact & Connection



Education

ESTREAM WAVES 2023: Empowering STREAM Education

UTP successfully organised the ESTREAM WAVES programmes in collaboration with Pertubuhan Rakan Komuniti Pendidikan Perak (PRKPP), the Atomic Energy Licensing Board (AELB), and the Ministry of Science, Technology and Innovation (MOSTI). The programme aimed to empower Science, Technology, Reading, Engineering, Arts, and Mathematics (STREAM) education and inspire students to pursue STREAM-related careers.

Over the past five years, the impact of UTP's partnership with AELB and PRKPP has reached more than 4,000 primary and secondary school students across Malaysia. In 2023, UTP further strengthened its commitment to STREAM education by signing Memorandums of Understanding (MoUs) with both AELB and PRKPP.

ESTREAM WAVES 2023 featured three competitions: Chemist STEM Pitching, IOT King, and Read, Write, Protect. Participants showcased their knowledge and skills in various STREAM disciplines through high-quality video submissions, addressing the theme of "A Sustainable Malaysia."



Bridging Gaps in Science & Engineering Laboratory Safety

UTP's Laboratory Management Department (LMG) organised a one-day sharing session in collaboration with Kesatuan Sekerja Kakitangan Makmal (KSKM) Perak and Jabatan Pendidikan Negeri Perak. This initiative addressed crucial aspects of laboratory safety and operations tailored to secondary school curricula. The programme targeted laboratory assistants from various District Education Offices (PPD) within Perak, providing them with invaluable insights and hands-on experience.

LMG's technologists and executives facilitated engaging sharing sessions and hands-on practical experiments, ensuring a two-way communication flow that met all programme objectives. By the event's conclusion, participants had gained a comprehensive understanding of laboratory safety and the selected experimental topics.



Socioeconomic

UTP and HBUK Collaborate to Enhance Community Well-being

UTP and Hospital Bahagia Ulu Kinta (HBUK) worked together to bring mental health awareness and services closer to the local community. This initiative, aligned with the Ministry of Health's National Agenda for a Healthy Malaysia, made a significant impact on community well-being and health literacy.

The programme introduced Healthy Mind Screening, which greatly improved access to mental health services for the community. By promoting open discussions about mental health, it helped reduce the stigma surrounding these issues. The collaboration also raised awareness about services offered by HBUK and other agencies, empowering community members to better understand and use available health resources.





School Supplies Campaign to Support Underprivileged Students

As part of its social responsibility initiatives, UTP organised the UTP Menggapai Impian Yayasan UTP School Kits Giving Campaign to support 331 secondary students from 26 schools across Perak. The campaign aimed to ease the financial burden of low-income families from the university's surrounding areas, motivating their children to excel academically and secure a better future.

Students received basic school supplies, including bags, stationery, and shopping vouchers, which were handed over to district education officers, school representatives, principals, and UTP janitors and security personnel. In 2023, the campaign raised over RM66,000 through contributions from UTP and PETRONAS staff, who sponsored a minimum of RM200 for each student.

Since its launch in 2007, the UTP Menggapai Impian Yayasan UTP School Kits Giving Campaign has benefited more than 3,452 students from various backgrounds, including those from orphanages, welfare homes, shelters, schools, and children of UTP janitors and security personnel.



Transforming Schools' Safety Culture

UTP successfully implemented the OSH4School USR programme to raise awareness about health, safety, and environmental practices among students. The programme fostered safer and more conducive learning environments in six selected schools across the Perak Tengah district, namely MRSM Pasir Salak, SK Changkat Banjar, SK Cikgu Mior Shahrudin, SK Telok Perang, SK Pulau Padang, and SK Tanjong Bidara.

OSH4School was a collaborative effort involving key partners such as the Department of Occupational Safety and Health (DOSH) Perak, Perak Tengah District Education Office, PETRONAS Dagangan Berhad, PETRONAS Station UTP, and Maktab Rendah Sains MARA (MRSM). Each participating school received a First Aid Kit, enhancing their emergency preparedness. Informative talks were also held covering crucial topics, including safety and health awareness, first aid, electrical safety, and fire safety and evacuation procedures.



Environment

Cultivating Environmental Stewardship and Cross-Cultural Understanding

UTP's Go Nature Campaign 3.0 (GNC 3.0) culminated in a transformative educational initiative in Sabah. This collaborative effort with Universiti Malaysia Sabah (UMS) engaged 20 selected participants, significantly impacting their perspectives on environmental sustainability and cultural diversity.

The visit to UMS exposed participants to innovative approaches to environmental conservation, fostering an exchange of ideas between institutions. Hands-on activities formed the core of the programme's impact. Participants planted over 50 trees at SFERA and engaged in a beach clean-up at UMS's ODEC Zone A, directly contributing to local conservation efforts. The community outreach programme also provided participants with diverse cultural experiences and fostered social bonds within a diverse community.





Preserving Teluk Nipah's Coastal Heritage

UTP collaborated with the Manjung Municipal Council (MPM) and Manjung District Drainage and Irrigation Department (JPS Manjung) to establish a sustainable coastal environment in Teluk Nipah.

Initiated by UTP Institute of Self-sustainable Building (ISB) in 2019 and led by Ts Dr Teh Hee Min, the environmental project aimed to combat erosion problems, enhance the quality of the coastal environment, and improve the socio-economic status of the local community through partnerships and awareness programmes.

Teluk Nipah Beach and Coral Beach, popular recreational destinations in Pangkor Island, have been facing severe erosion since 2017 due to excessive wave forces and anthropogenic activities. Recognising the concerns of local authorities and communities, UTP worked closely with MPM, JPS Manjung, and Hello Pangkor, a local NGO, to address these issues. As part of the project, UTP and JPS Manjung constructed a 50-metre rock revetment to protect Coral Beach from further erosion.

To raise awareness about coastal problems in Teluk Nipah, UTP organised community engagement sessions in August 2019 and January 2022, allowing local communities to share their concerns with authorities. Additionally, UTP, MPM, and JPS Manjung conducted forums and webinars on coastal vulnerability and conservation, with Hello Pangkor sharing their efforts to create cleaner beaches.



Sustainable Technology Solutions for Freshwater Fish Farming

UTP successfully enhanced the socioeconomic conditions for freshwater fish farmers in Kampung Layang-Layang Kanan, Parit in Perak. This knowledge transfer and competency upskilling programme focused on improving aquaculture production techniques and management skills.

Leveraging their expertise in water treatment and biopolymer applications, UTP researchers collaborated with the Perak Tengah District Office and the Department of Fisheries Malaysia to provide technical know-how and in-kind materials to the local fish farmers.

As a result of this initiative, participating fish farmers learned to effectively control water quality to manage yield and produce 'Sangkar' (fish cages) for a sustainable enterprise. By increasing their yield and improving their farming practices, the fish farmers were positioned to enhance their long-term socioeconomic conditions.

MED Beach Cleanup Day with Alumni

UTP's Mechanical Engineering Department (MED) and Alumni Relations Office (ARO) jointly conducted the MED Clean the Beach with Alumni 2023 event at Teluk Senangin, Perak. This initiative aimed to strengthen the bonds between the department, its students, and alumni, while also instilling a spirit of community service.

The event saw an impressive turnout, with participants collectively removing over 96 kg of trash from the beach. Through this programme, MED successfully brought together department staff, alumni, and current students meaningfully. The event not only fostered stronger connections within the UTP community but also made a tangible difference to the local environment.

Cultivating Environmental Stewardship Among Primary Students

UTP students organised a two-day University Social Responsibility programme for 176 primary students and 16 teachers from Sekolah Kebangsaan Ayer Denak Tronoh and SRJK (C) Kampung Nalla Tronoh. The programme, themed “Sustainable Recycling Systems in Primary Schools,” aimed to educate participants on the importance of solid waste management for a sustainable future.

In collaboration with Global Environment Centre (GEC) Malaysia and Tzu Chi Bercham Recycling Centre, the UTP EPIC team, consisting of students from various Applied Chemistry, Chemical Engineering and Computer Engineering programmes, engaged the primary students in recycling competitions, craft activities, and workshops to promote the 3R (Reduce, Reuse, Recycle) concepts and raise awareness about protecting the environment.

Teachers from the participating schools acknowledged the programme’s benefits, highlighting that students gained valuable knowledge on managing and converting waste into useful products, such as green compost, and could share this information with their families and friends through social media platforms.

The initiative was part of the General Studies (MPU) national requirement prescribed by the Ministry of Higher Education Malaysia, designed to support students’ development through community engagement projects. The programme aligns with UTP’s mission to produce well-rounded graduates and supports the university’s social responsibility pillar, focusing on the environment.



Festive Seasons

Igniting Hope and Happiness Through Festive Giving

Throughout the year, UTP, in collaboration with Yayasan PETRONAS and various partners, has been committed to uplifting the lives of underprivileged communities across Malaysia. As part of UTP's University Social Responsibility (USR) initiatives, they have distributed essential food items and festive hampers to bring joy and support to those in need during major celebrations in the country.

For Chinese New Year, UTP and Yayasan PETRONAS launched the “Sentuhan Kasih Tahun Baru Cina” programme, benefitting 150 families in the Perak region. This thoughtful initiative provided essential food items, including rice, cooking oil, sugar, salt, flour, sardines, tea and festive treats. The Memampankan Ekonomi Asas Rakyat (MEKAR) programme and Jabatan Kebajikan Masyarakat (JKM) vendors supplied cookie hampers, further ensuring a joyous celebration for all beneficiaries.

As the year progressed, the spirit of giving continued with the “Memacu Kehidupan: Hari Raya Aidilfitri 2023” programme. Supported by PETRONAS Dagangan Bhd (PDB) and Jabatan Kebajikan Masyarakat (JKM), the programme distributed basic food necessities, festive food supplies, and PETRONAS gift cards to beneficiaries in various regions. The initiative's goal was to foster a sense of community support and improve the well-being of those in need during the Hari Raya celebrations.





During the Deepavali season, UTP and Yayasan PETRONAS contributed festive food to underprivileged communities in 11 states, reaching out to 1,600 families. The distribution included items such as basmati rice, curry and kesari powder, and murukku hampers. Shariah Nelly Francis, CEO of Yayasan PETRONAS, emphasised the joint commitment of both organisations to ensure that no one is left behind during this time of celebration.



As the year drew to a close, UTP and Yayasan PETRONAS launched the “Memacu Kehidupan: Krismas 2023” programme. This Christmas initiative, a collaboration with Jabatan Kebajikan Masyarakat Negeri Perak and Pejabat Kebajikan Masyarakat Daerah Kampar, focused on distributing food boxes to underprivileged families. The programme aimed to spread holiday cheer and ensure that families could celebrate Christmas with dignity and joy.



In addition to festive contributions, UTP and Yayasan PETRONAS also rolled out the Powering Knowledge: Back to School Programme (BTS 2023) to support the education of students from low-income households. The programme provided school supplies and uniforms to 21,000 lower primary and lower secondary school students across Malaysia.

These initiatives are part of UTP and Yayasan PETRONAS’ focus on community well-being and development, aligning with the PETRONAS Sustainability Agenda and the United Nations’ Sustainable Development Goals.



Best MPU4 Community Engagement Project Awards 2023

The mandatory MPU4 course encourages students to engage in community projects that address societal needs while developing their knowledge, skills, values, and morals, aligning with UTP's goal of producing well-rounded, global-minded graduates.

For the 2023 academic year, six outstanding projects were recognised as champions in the Best MPU4 Community Engagement Project Awards.

The winning projects are listed below:

BATCH 19	BATCH 20	BATCH 21
Best MPU4 Community Engagement Project Awards	Best MPU4 Community Engagement Project Awards	Best MPU4 Community Engagement Project Awards
Batch 19 (September 2022 - January 2023 Semester)	Batch 20 (January - May 2023 Semester)	Batch 21 (May - September 2023 Semester)
Champion Project Title: HashTech	Champion Project Title: The Cahaya Garuda	Champion Project Title: PyCamp
Best MPU4 Video Presentation	Best MPU4 Video Presentation	Best MPU4 Video Presentation
Batch 19 (September 2022 - January 2023 Semester)	Batch 20 (January - May 2023 Semester)	Batch 21 (May - September 2023 Semester)
Champion Project Title: Rona Harapan	Champion Project Title: SEM"PURE"NA 2023	Champion Project Title: RoboGurus

*This project is under HEB1012 Community Engagement Project (MPU4), which is a compulsory course offered to all UTP students as part of the national requirement subject prescribed by the Ministry of Education Malaysia.

Empowering Youth through Technology Education

In an era of rapid technological advancement, it is crucial to equip the younger generation with the skills and knowledge needed to thrive in the digital age. HashTech aimed to address this need by educating and inspiring students to explore the field of technology.

The project consisted of a pre-event phase, where the HashTech team engaged with the public through social media, conducting quizzes and sharing technology-related information. The main event, “The Arduino Technology Camp with HashTech,” brought together 142 Form 5 students from 62 full-boarding schools across Malaysia.

The camp featured workshops, hands-on case studies, robotics demonstrations, and sharing sessions by various departments. Each participating school received resources to encourage further exploration of technology and inspire students to consider careers in the field. HashTech successfully achieved its objectives by providing students with access to technological resources, inspiring them to have clearer career visions, and raising public awareness about the importance of technological skills.



Igniting Hope through Education

Rona Harapan aimed to foster socioeconomic development by empowering indigenous students through education. A team of 20 students from various departments in UTP collaborated to create a meaningful, real-world learning experience while making a positive impact on the community.

The project's primary objective was to expose indigenous students to more accurate knowledge, and provide them with better lifestyle choices, skills, and greater self-advocacy for their community. By introducing preschool, primary, and elementary school students to fun learning methods, the team sought to stimulate their interest in education and create awareness of its importance.

Throughout the project, the Rona Harapan team actively engaged with the public through their Instagram page, which garnered over 50 followers in a month. The three-day, two-night project culminated in a series of fun learning activities and games for school students and their caregivers. The team also organised additional activities for caregivers, such as decorating breakfast food in groups, to show appreciation for their support and involvement in their children's education.



Illuminating Lives Across Nations

The Cahaya Garuda Project aimed to inspire students to apply their engineering skills and knowledge while fostering communication and collaboration between Malaysian and Indonesian communities. Through a partnership with Universitas Airlangga (UNAIR) and supported by a Memorandum of Understanding (MoU) between UTP and UNAIR, the project aimed to conduct a University Social Responsibility (USR) programme in Kecamatan Gempol, Kabupaten Pasuruan, Indonesia.

The project developed a prototype and intervention to address farmers' overuse of chemical pesticides in the region. In collaboration with UNAIR, the team installed a Smart Arduino Pest Control prototype at a villager's house in Desa Kecamatan Gempol to enhance crop quality.

The project's success was marked by several key events, including an international seminar on Sustainable Industrial Devices, Artificial Intelligence, and Internet of Things (SIDAFIT); a cultural concert, Pentas Apresiasi Seni UTP X UNAIR; and community service activities.



Providing Streams of Knowledge

SEM”PURE”NA 2023, a collaborative project with Engineers Without Borders (EWB) Malaysia and ISKUL Sama Di Laut Omdal, aimed to provide sustainable access to clean water and education for the underprivileged community in Semporna, Sabah. The project focused on supplying water filters to households in Omdal Island, where the only source of water was acidic rainwater, posing health risks to the residents.

Through the project, the team educated the target participants about the importance of clean water and provided training on the use of water filters. Additionally, a full-day programme was conducted at Sekolah Kebangsaan Terusan Baru, Semporna, to raise awareness among primary school students about the significance of access to clean water. The programme included engaging activities and an interactive sharing session by Dr Chai Yee Ho from the Chemical Engineering Department on ‘Cintai Air Kita’.

By providing access to clean water and education, the project not only enhanced the health and well-being of the residents in Omdal Island but also left a lasting impact on the students, fostering an appreciation for the importance of clean water.

Nurturing Young Tech Talents

PyCamp, a transformative Python programming camp, has left an indelible mark on the lives of 152 students from Sekolah Berasrama Penuh (SBP) schools across Malaysia. The programme’s primary objective was to enhance participants’ technical knowledge and equip them with invaluable real-life skills, such as effective communication and ICT proficiency.

Through hands-on activities, practical exercises, and exposure to real-world applications of programming, PyCamp fostered a culture of creativity and innovation, encouraging students to think outside the box and develop ingenious solutions to coding challenges.

Participants were also introduced to the diverse range of academic programmes, research opportunities, and vibrant student life at institutions like UTP, inspiring them to consider further studies in the field of Information and Communication Technology (ICT). By providing a transformative learning experience, PyCamp has nurtured the participants’ passion for technology and empowered them with essential skills that will serve them well in their future endeavours.



Innovators in the Making

RoboGurus: Arduino Training For Schools, a skill development programme focused on providing Arduino-related projects and programming training, collaborated with Petrosains RBTX Roadshow to execute a two-day robotics training in Perak. The programme aimed to educate 120 secondary school teachers and students from schools in the Perak Kinta Selatan district, emphasising hands-on activities to develop essential skills such as problem-solving, teamwork, and logical thinking.

The training sessions at SMK Dato' Abdul Rahman Yaakub and SMK Sultan Yussuf focused on teaching participants how to build and program RoboTracer and RoboSumo robots. Participants gained hands-on experience building, coding, and troubleshooting robots in real game fields.

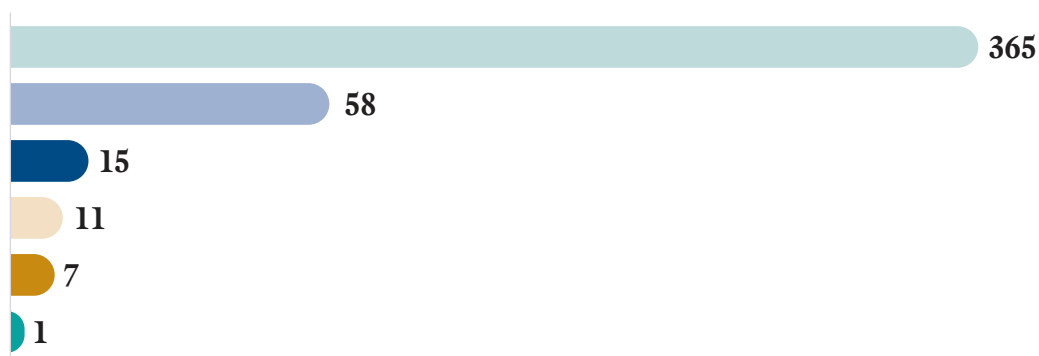
The project's key achievement was ensuring that all participants could engage in robotics competitions, such as the Petrosains RBTX Challenge 2023, applying the skillset and problem-solving abilities acquired throughout the programme. RoboGurus' impact on the community included enhancing Science, Technology, Engineering, and Mathematics (STEM) education in the current education system and nurturing an innovation and creativity mindset among the youth in Perak.



Partnership for Progress



In 2023, UTP has **457** Partners Spreading Across **51** Countries,
58% are International Partners



365 Partners | 26 Countries



Kazakhstan	: 5	South Korea	: 1
Korea	: 3	Taiwan	: 4
Malaysia	: 193	Thailand	: 12
Myanmar	: 1	Turkey	: 2
Oman	: 2	UAE	: 1
Pakistan	: 10	Uzbekistan	: 1
Philippines	: 12	Vietnam	: 6
Saudi Arabia	: 1	Yemen	: 1
Singapore	: 7		

58 Partners | 15 Countries



Portugal	: 1
Russia	: 1
Scotland	: 1
Spain	: 2
Sweden	: 2
Switzerland	: 2
United Kingdom	: 8

15 Partners | 2 Countries



11 Partners | 6 Countries



7 Partners | 1 Country



1 Partners | 1 Country



243 UTP University Partners & 214 UTP Industry Partners

*Excluding Malaysia

CONTINENTS	UNIVERSITY	INDUSTRY	TOTAL
Asia *	144	28	172
Malaysia	37	156	193
Europe	43	15	58
North America	8	7	15
South America	1	0	1
Africa	6	5	11
Oceania	4	3	7
TOTAL	243	214	457

294 Active MoU in 2023 and 66% are International MoU

*Excluding Malaysia

CONTINENTS	UNIVERSITY	INDUSTRY	TOTAL
Asia *	123	15	138
Malaysia	29	70	99
Europe	30	4	34
North America	6	2	8
South America	1	0	1
Africa	6	3	9
Oceania	4	1	5
TOTAL	199	95	294

Collaborative Efforts to Achieving Net Zero Carbon Emissions

UTP and Ain-ILS Group Join Forces to Drive Sustainable Energy Solutions

UTP and Ain-Integrated Logistics Solutions (Ain-ILS) Group have embarked on a strategic partnership to develop and implement innovative technologies that promote the use of renewable energy sources and reduce greenhouse gas emissions. The collaboration, formalised through a signed agreement, focuses on biomass valorisation, fuel production, and other projects that contribute to a sustainable business ecosystem and cleaner environment.

The partnership brings together UTP's expertise in biofuels and sustainable resource management, through its Centre for Biofuel and Biochemical Research (CBBR) and Centre of Urban Resource Sustainability (CUREs), with Ain-ILS Group's industry experience. This synergy aims to monetise various biomass resources using greener and cleaner technologies, aligning with PETRONAS' aspiration to achieve Net Zero Carbon Emission by 2050 (NZCE 2050).

The signatories of the agreement were UTP Vice Chancellor, Professor Ts Dr Mohamed Ibrahim Abdul Mutalib and Ain-ILS Group Chairman, Dato' Wan Ariff Wan Hamzah. The partnership between UTP and Ain-ILS Group represents a significant step towards building a sustainable social economy and promoting the decarbonisation of industrial operations at all levels.

UTP and ANFA Renewables Unite to Develop Sustainable Biomass Pellets

UTP and ANFA Renewables Malaysia have agreed to collaborate on breakthrough research on Hydrophobic Biofuel Pellets (HB-fP) derived from biomass to support the energy sector. The collaboration aims to develop and characterise bio-pellets from oil palm and bamboo that mimic coal properties and provide a sustainable and industrial solution for hydrophobic bio-fuel pellets.

The partnership aligns with PETRONAS' aspiration of achieving net zero carbon emissions (NZCE) by 2050, as the developed product is expected to have lower carbon emissions compared to coal. This collaboration demonstrates UTP, PETRONAS, and ANFA Renewables' commitment to reducing greenhouse gas emissions and abiding by the Paris Agreement.





UTP and Arterran Asia Collaborate on Breakthrough Research for Green Chemicals Development

UTP and Arterran Asia Sdn Bhd signed a joint development agreement to undertake cutting-edge research on developing green chemicals from the by-products of empty fruit bunches. The collaboration, witnessed by the Honourable Rob Stewart, Deputy Minister for International Trade, Canada, and HE Wayne Robson, High Commissioner for Canada in Malaysia, aims to develop a conversion process via thermo-catalytic conversion and quantify and analyse the full spectrum of the high-value green chemicals recoverable.

This partnership aligns with PETRONAS' aspiration of achieving Net Zero Carbon Emissions by 2050 and supports the commitment of UTP, PETRONAS, and Arterran Asia Sdn Bhd to reduce greenhouse gas emissions and abide by the Paris Agreement. The development of this innovative process design is expected to yield high-value green chemicals from agricultural wastes while reducing carbon emissions.



Advancing Sustainable Innovations in the Palm Oil Industry

UTP and Malaysian Kuwaiti Investment Co. Sdn Bhd (MKIC) signed an agreement to advance research and development in the palm oil industry, focusing on sustainable technology through optimal use of biomass and other wastes. The collaboration was signed by UTP Vice Chancellor, Prof Ts Dr Mohamed Ibrahim Abdul Mutalib and MKIC Chief Executive Officer, Mohd Shahrin Mohd Ali.



UTP and MKIC will embark on a pioneering project, "Optimisation of Biomass Waste-to-Wealth", at Balung Palm Oil Mill Sdn Bhd in Tawau, Sabah, which aims to increase the plantation yield, reduce the cost of electricity and decrease the net carbon dioxide (CO₂) emissions. The project will also develop a hybrid heavy-duty plantation vehicle using biodiesel derived from palm oil waste and electric motors.



This innovative approach aligns with Malaysia and PETRONAS' commitment to achieving net zero CO₂ emissions and UTP's aspiration for sustainable global prominence. The two-year project, consisting of three sub-projects led by UTP researchers, is expected to significantly reduce diesel fuel consumption and CO₂ emissions, driving waste-to-wealth initiatives forward and exploring revenue opportunities through IP related to the hybrid heavy-duty plantation vehicle.

UTP and SRM University AP Strengthen Ties to Enhance Global Learning

UTP and SRM University Andhra Pradesh (SRM University AP) India have signed a Memorandum of Understanding (MoU) to strengthen their collaboration in academic, research, and student mobility activities. The partnership aims to create enriching learning experiences for students and equip them with the skills needed to work across borders.

The MoU, signed by UTP Vice Chancellor, Professor Ts Dr Mohamed Ibrahim Abdul Mutalib and SRM University AP International Relations and Higher Studies Associate Director Dr Naga Swetha Pasupuleti, reflects UTP's commitment to becoming a prominent and internationally recognised higher learning institution.

UTP and SRM University AP have already initiated collaborative efforts, with 83 SRM University AP students completing a familiarisation programme at UTP last year. In return, UTP sent its first group of outbound students to explore the SRM University AP campus in Amaravati, attend specialised short courses, and visit the Infosys Limited campus in Hyderabad.

By strengthening this partnership, UTP hopes to attract more prospective students from India to study in Malaysia, enhancing the country's higher education value proposition, capacity, and capabilities.



UTP and TotalEnergies Collaborate to Advance Subsurface Fluids Monitoring

UTP has entered into a strategic partnership with TotalEnergies EP Malaysia (TotalEnergies) to develop and implement cutting-edge optical fibre sensing technologies for monitoring subsurface fluids stored underground. The collaboration aims to enhance the understanding and management of subsurface fluids, including carbon storage, as well as oil and gas field systems.

The partnership brings together the expertise and resources of both organisations, focusing on the use of Distributed Acoustic Sensing (DAS) Imaging, fibre-optic seismic sensing technologies, and predictive analytics and data visualisation using machine learning.

By combining these technologies with data acquisition, subsurface visualisation, and image interpretation aided by cloud-based computing, UTP and TotalEnergies seek to develop an effective solution for monitoring subsurface fluids.



UTP and UIR Renew Partnership to Strengthen Academic and Research Collaboration

UTP and Universitas Islam Riau (UIR) Indonesia have renewed their collaboration in academic, research, and student development programmes. The MoU signing ceremony, held at the UTP campus, was attended by high-level representatives from both institutions and witnessed by the Riau Governor, Dr Syamsuar.

Since the initial MOU signing in 2018, UTP and UIR have secured 22 matching grants, resulting in the publication of 10 articles in Q1 and Q2 journals. The partnership has also facilitated student exchange programmes, with 13 UTP students participating in MPU4 projects and internships at UIR, and 5 UIR students undergoing research attachments at UTP.

Through this partnership, UTP aims to strengthen cooperation between Malaysia and Indonesia and attract more prospective Indonesian students, particularly from the Riau Province, to enrol in UTP.



UTP and Epic Tips Global Synergise to Deliver High-Quality Professional Education

UTP and Epic Tips Global (M) Sdn Bhd have signed an MoU to foster academic collaboration and offer high-quality training programmes that meet market needs. The partnership will leverage UTP's Centre for Advanced and Professional Education (CAPE) and Epic Tips Global's expertise in marketing to deliver professional short courses and competency development programmes.

The collaboration will kick off with the launch of a one-year Petrophysical Immersive Programme and explore opportunities for industry-experienced candidates to pursue an MSc in Petroleum Geoscience and an MSc in Petroleum Engineering at UTP. This initiative will provide pathways for joint supervision of master's degree dissertations, leading to joint research and publications.

Collaboration to Advance Research, Academics and Student Mobility

UTP and Ho Chi Minh City University of Technology and Education (HCMUTE) have signed an MoU to expand and diversify their network of academic and research partners. The MoU, signed by UTP Vice Chancellor, Professor Ts Dr Mohamed Ibrahim Abdul Mutalib and HCMUTE Acting President, Dr Le Hieu Giang, lays the foundation for collaboration in research, academics, student mobility, internships, and staff exchange.

A shared area of interest for collaboration is HCMUTE's subscription to the Altair software package. The UTP-Altair Centre of Excellence (CoE) for Applied Scientific Computing, the first of its kind in the Asia Pacific region, focuses on multi-physics, multi-scale modelling, and Internet of Things (IoT) research. The CoE aims to become a regionally recognised resource centre for computational modelling and analytics in energy, transportation, and fundamental engineering research.



UTP and PNU Reaffirm Commitment to Enhance Student Mobility and Cultural Exchanges

UTP and Princess of Naradhiwas University (PNU) have renewed their collaboration, initially signed in 2017, to enhance academic offerings in energy, engineering, and technology through student mobility and cultural exchange programmes.

The collaboration aims to increase the academic quality of students' education by exposing them to new learning opportunities and pedagogical approaches, better equipping them for future employment through the internalisation of experience. Some examples of successful programmes include the Sit Tight Speak Right Non-Credited Community Outreach to PNU and the Sports and Cultural Exchange programme.

UTP and PNU also plan to explore research collaborations, linking their areas of expertise and promoting postgraduate student mobility. They also aim to focus on staff mobility through programmes involving visiting professors, visiting researchers, and other staff mobility initiatives to further strengthen the collaboration between the two institutions.



EPOMS and UTP Collaborate to Drive Expansion and Innovation

In a strategic move to fuel growth and innovation, E&P O&M Services Sdn Bhd (EPOMS) signed a Service Level Agreement (SLA) with UTP. Consequently, the SLA enables EPOMS to provide services and technical solutions in collaboration with UTP.

UTP will continue developing specialised capabilities and breakthrough technological solutions, complemented by EPOMS' commitment to serving the energy industry. By joining forces, EPOMS and UTP are poised to enhance value creation potential through niche services and solutions.



Enhancing RISC-V Open Architecture Research via UTP & StarFive Technology Partnership

UTP and StarFive Technology International Sdn Bhd (StarFive Technology) signed an MoU to elevate the quality of UTP's Electrical and Electronics Engineering and Computer Engineering undergraduate degree programmes. The partnership encompasses student mobility, academic staff exchange, research collaboration, and joint academic activities.

Notably, the MoU marks the establishment of a joint embedded research laboratory, which functions as a centre for undergraduate and postgraduate students to work on the RISC-V open architecture activities. At the same time, the laboratory enables UTP to undertake cutting-edge research for industry partners and accelerate the commercialisation of its own research in RISC-V open architecture.



Nurturing STEM Education Excellence through UTP-Atom Malaysia Collaboration

UTP and the Department of Atomic Energy Malaysia (Atom Malaysia), a distinguished government department under the Ministry of Science, Technology, and Innovation (MOSTI), formalised their partnership through an MoU agreement.

The collaboration serves to strengthen their efforts to promote Science, Technology, Engineering, and Mathematics (STEM) education in Malaysia. Building upon successful past initiatives like the Maths Genius competition, UTP and Atom Malaysia will focus on enhancing academic scope, fostering student development, and promoting cutting-edge research in STEM fields through a comprehensive Joint Outreach in STEM Education.





Empowering Talent and Advancing Research with Top Glove

UTP and Top Glove Sdn Bhd (Top Glove) signed an MoU, marking a significant milestone in their strategic collaboration aimed at nurturing talent and promoting research excellence. The partnership originated from the successful hosting of UTP internship students by Top Glove, showcasing the exceptional potential of these students.

One of the immediate outcomes of this collaboration was the establishment of a robust student internship programme. Top Glove has consistently welcomed UTP students to undergo seven months of comprehensive training as part of their internship experience.

In addition, the collaboration included student recruitment and talent development initiatives, and various research and academic activities that will benefit both UTP and Top Glove in their pursuit of innovation and excellence. By leveraging each other's strengths, UTP and Top Glove aspire to cultivate a culture of innovation and excellence, creating a talent pool equipped with the skills and knowledge necessary to meet the challenges of the evolving industry landscape.

UTP and Hadhramout University Continue Partnership for Joint Research and Student Exchange

UTP and Hadhramout University reaffirmed their long-standing partnership through the renewal of an MoU and the signing of a Research Collaboration Agreement. The collaboration was initiated in 2018, followed by a visit by delegates from Hadhramout University in 2019. Subsequently, Hadhramout University sent four (4) students to UTP for a 1-semester attachment in 2022. To date, UTP has enrolled 42 Yemeni students, of which 4 are undergraduates, and the remaining 38 are postgraduates.

Under the renewed agreement, both institutions have committed to allocating RM25,000 for joint research projects, with the first project entitled “SDN Traffic Engineering Using Deep Reinforcement Learning” set to commence. The partnership is expected to expand to include student and staff training and joint Master’s programmes, fostering mutual benefits for both universities.





Supporting Nigerian Students through Postgraduate Sponsorship Agreement

UTP and the Petroleum Technology Development Fund (PTDF) of Nigeria signed a sponsorship agreement, enabling PTDF-sponsored Nigerian students to pursue postgraduate programmes at UTP. The agreement, signed by UTP Deputy Vice Chancellor Academic, Professor Ir Dr Hilmi Mukhtar and PTDF Executive Secretary, Dr Bello Aliyu Gusau, solidifies the commitment of both institutions towards empowering Nigerian students through quality education and advanced training.

Currently, UTP hosts 75 Nigerian students, with 32 benefiting from the PTDF sponsorship arrangement, pursuing PhDs, Master's, and Bachelor's degrees. With the sponsorship agreement, UTP and PTDF aim to create a conducive environment for Nigerian students to excel academically and contribute to the growth of the petroleum industry in Nigeria. This collaboration also aligns with UTP's mission to produce competent and skilled human capital for the oil and gas industry, particularly in petroleum engineering, geoscience, and related areas of study.



UTP and Foundation University Islamabad Embark on Student Exchange Collaboration

UTP and Foundation University Islamabad (FUI) celebrated a significant milestone in their ongoing partnership by signing a Student Exchange Agreement. The agreement encompasses various avenues for student mobility, including the Student Exchange Programme, Short-term Programme, and Research Attachment Programme, providing students with opportunities to broaden their horizons and gain valuable experiences.

Several future plans are in the pipeline to strengthen the cooperation between UTP and FUI. These include a proposal for the International Collaborative Research Fund (ICRF) by the Positive Computing and Centre for Research in Data Science (CeRDaS) teams under the Institute of Advanced Studies (IAS), which is valued at USD29,000 once approved.



UTP and University West, Sweden, Collaborate on Work-Integrated Learning and Joint Programmes

UTP and University West (Högskolan Väst), Trollhättan, Sweden, signed an MoU, marking a historic occasion for both institutions. The collaboration, initiated by Dr Prabhu K Ramanathan, Senior Lecturer at the Division of Production Systems, University West, in 2019, has been supported by The Swedish Foundation for International Cooperation in Research and Higher Education (STINT).

With the STINT funding granted in 2020, two members of the University West visited UTP in 2022 after the pandemic travelling restrictions were lifted. The visit led to a collaboration between UTP and University West, focusing on student mobility, with University West students participating in student exchange programmes at UTP and internship opportunities at Swedish industry operations in Malaysia. Discussions were also conducted for collaboration in joint or co-teaching, short courses, and Online Distance Learning (ODL) in the areas of robotics, automation, additive manufacturing, and electrical drive. UTP seeks to leverage University West's expertise in Work-Integrated Learning (WIL) to increase industry-working adults' enrolment in its ODL programme.



Forging a Partnership to Drive Innovation and Socio-Economic Progress

UTP and the Department of Science and Technology Regional Office XI (DOST-XI) of the Philippines signed an MoU to fortify collaboration between the two nations, driving innovation and advancing socio-economic progress. The MoU was signed by UTP Deputy Vice Chancellor for Research, Innovation and Commercialisation, Prof Ir Dr Mohd Shahir Liew and DOST-XI Regional Director, Dr Anthony C. Sales, PFT, CESO III.

The MoU focuses on quadruple helix outcomes, bilateral and multilateral training programmes, opportunities for joint business development, staff exchange programmes, and several signature projects. The collaboration aligns with the Environmental, Social and Governance (ESG) agendas, addressing critical global challenges and contributing to global technological advancements. The partnership represents a significant step towards strengthening bilateral and multilateral ties, fostering cross-cultural exchange and mutual growth, and signifies a historic milestone in UTP's journey towards gaining global prominence.

UTP and JPPKK Collaborate to Develop High-Quality Engineering Workforce

UTP and the Department of Polytechnic Education and Community Colleges (JPPKK) signed a Certificate of Collaboration (CoC) to produce a high-quality engineering workforce and position Malaysia as a leader in engineering education and research. The CoC, signed by UTP Vice Chancellor, Professor Ts Dr Mohamed Ibrahim Abdul Mutalib and JPPKK Senior Director for Academics, Mohd Noor Shahudin, outlines initiatives that foster knowledge exchange and the development of sustainable solutions.

This includes collaboration in various areas, including expertise exchange, collaborative training, syllabi enhancement, research promotion, credit transfer, industrial training programmes, and adjunct lecture programmes. The partnership, a result of the UTP Civil and Environmental Engineering (CEE) Department's efforts to forge meaningful connections with polytechnic institutes nationwide, marks a significant milestone in advancing engineering education in Malaysia and positioning the country at the forefront of engineering innovation and research.



Inking MoU to Accelerate Industry 4.0 Innovation

UTP and AntsBees Sdn Bhd (Antsbees) signed an MoU to equip UTP students and staff with expertise in specialised domains of Industry 4.0, including Big Data Analytics, Project Management Data Analysis, Artificial Intelligence, and Digital Marketing. The MoU was signed by UTP Vice Chancellor, Prof Ts Dr Mohamed Ibrahim Abdul Mutalib and AntsBees Chief Executive Officer, Mohd Sofian Sharin.

The partnership brings together UTP's academic excellence and AntsBees' technological expertise to drive collaborative projects and contribute to the evolution of technology and digital transformation across industries. Through this strategic alliance, UTP aims to conduct groundbreaking research for industry partners and expedite the transformation of research into tangible, market-ready solutions, positioning both institutions as trailblazers in Industry 4.0 advancement.



Fostering Global Academic Collaboration for Mutual Advancement

UTP and Al-Ayen Iraqi University (AUIQ) signed an MoU to signify their commitment to fostering global academic collaboration and driving mutual advancement and growth. The MoU was signed by UTP Vice Chancellor, Prof Ts Dr Mohamed Ibrahim Abdul Mutalib and AUIQ Chancellor, Prof Dr Shafik S. Shafik.

The collaboration encompasses student mobility programmes, lectures, short courses, and training in scientific research methods to elevate students' skills and competencies. Additionally, AUIQ staff will be able to pursue Master's and PhD programmes at UTP in STEM areas as part of a comprehensive staff development programme. This partnership reflects the joint dedication of both institutions to cultivate educational and research cooperation, fostering a global community of learners, researchers, and educators dedicated to pushing the boundaries of knowledge.



UTP, MoHERST Gambia, and USET Collaborate to Enrich Academic and Research Interactions

UTP, the Ministry of Higher Education, Research, Science and Technology (MoHERST) Gambia, and the University of Applied Science, Engineering and Technology (USET) Gambia signed an MoU to foster academic collaborations and enrich interactions between the academic and research communities of both countries. Facilitated by the Malaysia Embassy in Dakar, Senegal, the partnership capitalises on staff and student mobility to create a collaborative academic environment.

The areas of common interest include joint organisation of seminars, short-term training, and short courses, consultancy and guidance by UTP on the establishment of the Faculty of Petroleum and Gas Engineering at USET, and placements for enrollment of undergraduate and postgraduate students to study in USET and UTP. This collaboration is a significant step towards strengthening the bilateral relations between Malaysia and Gambia, which have been established since 1981.



UTP and Blue Planet Environmental Solutions Champion Sustainability and Waste Management Innovation

UTP and Blue Planet Environmental Solutions Pte Ltd signed an MoU to collaborate on initiatives that champion the United Nations Sustainable Development Goals (SDGs) and infuse real-life perspectives into UTP's academic curriculum.

The collaboration will leverage staff and student mobility, student internships, and opportunities to enhance collaborative academic and research endeavours, including joint organisation of seminars, conferences, and public lectures, as well as visiting industrial experts to share knowledge and expertise.

By combining their strengths and networks, UTP and Blue Planet are poised to create an unparalleled impact in advocating for sustainable practices, environmental consciousness, and innovative waste management strategies.



UTP and PRKPP Seal Partnership to Promote STEM and Literacy Education

UTP signed an MoU with Pertubuhan Rakan Komuniti Pendidikan Perak (PRKPP) to formalise their five-year collaboration in carrying out impactful outreach educational programmes involving schools, communities, and government agencies. The partnership, signed by UTP Vice Chancellor, Prof Ts Dr Mohamed Ibrahim Abdul Mutalib and PRKPP Chairman, Datuk Normah Hanum Dato Ibrahim, focuses on promoting Science, Technology, Engineering, Mathematics (STEM) and Literacy Education through UTP's signature ESTREAM WAVES Project.

Under UTP's University Social Responsibility (USR) aims and through the USR Education Pillar's efforts, the ESTREAM WAVES Project upholds UTP's vision to provide creative and innovative education not just for its students but also for surrounding communities. The MoU signing was witnessed by Sunway Group Founder and Chairman, Tan Sri Dato' Seri Dr Jeffrey Cheah, PRKPP Advisor, Dato' Mohamed Radzi Manan, and Deputy Director Student Development Sector, Encik Zulkafli Mohamed Mokhtar.



UTP and Al-Mustaqbal University Collaborate to Enrich Educational Experiences

UTP and Al-Mustaqbal University (MU) Iraq signed an MoU to foster collaboration and enrich educational experiences for students and staff. The collaboration encompasses student mobility programmes, lectures, short courses, joint scientific events, conferences, and journals.

MU staff will also have the opportunity to pursue Master's and PhD studies at UTP in Engineering, Technology, Science, and Management. This collaboration aims to offer numerous benefits, including international exposure, cultural exchange, and global recognition for students. There will also be networking opportunities and professional growth for UTP staff through exposure to new teaching methods, research approaches, and administrative practices. The academic collaboration fosters growth, innovation, and cross-cultural understanding, enriching the educational experiences of both students and staff.



UTP Forges Partnerships to Drive Digital Solutions and Commercialisation

UTP has signed agreements with various partners to cement its position as a technology and solutions partner for industries, providing a platform for academics, researchers, and industry to collaborate in creating new values through digital solutions. One of the partnerships is the development of the Halal Transparent Traceability System (HATTS) with the University of Southeastern Philippines (USeP) and the Department of Science and Technology Regional Office No. XI, Philippines.

Next, UTP and Petronas Global Technical Solutions Sdn Bhd (PGTSSB) will work together for the commercialisation of PETRONAS ORCA Technology. Through the establishment of the PETRONAS-UTP 5G INNOVATION LAB with PETRONAS Technical Services Sdn Bhd (PTSSB), several products under development include VR/AR and Apps Customisation, Dynamic Modelling, 5G Products & Power Management as well as 5G Devices Testing/Trial.

Lastly, UTP partnered with Dimension Horizon Sdn Bhd to promote and market UTP technologies such as Blockchain Based Middleware for Applications to Transparently Track Supply Chains (B-MATTS) and DOMAINS.





UTP Strengthens Ties with UMS for Research and Commercialisation

UTP signed an MoU with The Council for Higher Education, Research and Development of Muhammadiyah and a Master Technology Development and Deployment Agreement with Universitas Muhammadiyah Surakarta (UMS). The signing ceremony, held at the Centre for Advanced and Professional Education (CAPE), UTP, marks the culmination of collective efforts that began in March 2018.

The collaboration has resulted in more than 100 Collaborative Research Projects and more than 200 Student Mobility, Credit Transfer, and Talent Development initiatives. The extension of the MoU ensures the continuation and expansion of the collaboration, while the agreement with UMS focuses on the customisation and commercialisation of research outputs, including Sistem Bimbingan Haji dan Umrah and Halal Block-Chain Technology.

Under the patron of Deputy Vice Chancellor of Research, Innovation and Commercialisation, Prof Ir Dr Mohd Shahir Liew, UTP's Country Initiatives aim to establish vast collaborations between UTP and overseas institutions, ensuring the relevance of education and research to industry and society.

UTP and China-Malaysia Technology Innovation (Hainan) Co Ltd Collaborate to Foster Student and Academic Exchange

UTP and China-Malaysia Technology Innovation (Hainan) Co Ltd signed an MoU to collaborate in areas such as student mobility programmes, internship placements, and academic collaborative programmes. The collaboration began with visits from the Malaysia-China Industrial & Commerce Association (MCICA) and its sister companies, KTC ARKZ Group Sdn Bhd, Zhanjiang Youth Education and Development Centre, and Hangzhou Houpu Education and Technology Co Ltd, in August 2023.

The visits were aimed at exploring potential collaborations in research, innovation, commercialisation, internship, and capital building. The MoU signing ceremony solidifies the partnership between UTP and China-Malaysia Technology Innovation (Hainan) Co. Ltd, opening doors for mutual benefits and fostering cross-cultural exchange between the two institutions.



UTP and De La Salle University Renew MoU to Expand Collaborative Efforts

UTP and De La Salle University (DLSU), Philippines, renewed their MoU to further strengthen their collaborative efforts in achieving world-class globalised education. The partnership, which began in 2018, has resulted in successful initiatives such as graduate and undergraduate student exchange, internship programmes, joint research projects, and visits between the two institutions.

The renewed MoU, initiated by Dr Ethel Ong from Computer Science at DLSU, will cover areas in engineering, science, technology, mathematics, social sciences, and economics. UTP aims to learn from DLSU's expertise, particularly in the Computer Science programme, and exchange best practices. Moving forward, UTP will focus on diversifying and intensifying its consultancy and commercialisation capabilities, setting up halal food technology transfer units in Saudi Arabia, and expanding the halal food blockchain in Indonesia and the Philippines. UTP also plans to strengthen its commercialisation arm and expand regional collaborations with mature relationships in Indonesia, the Philippines, Vietnam, Thailand, and other emerging economies.



UTP and DNV Digital Solutions Partner to Enrich Learning Experience and Drive Research

UTP and DNV Digital Solutions signed an MoU to embark on a collaborative journey that enriches the learning experience for students and drives joint research endeavours. The partnership, which has grown from DNV's support in providing SESAM software for teaching and learning at UTP, will facilitate the involvement of industry experts from DNV in UTP's Master Coursework Programme in Offshore Engineering (MScOE).

This infusion of real-world expertise, combined with joint supervision of undergraduate and postgraduate students, will nurture a new generation of engineers equipped with both theoretical knowledge and practical skills. UTP and DNV will also collaborate on submitting research proposals and conducting joint research activities in the fields of Civil Engineering and Offshore Engineering. The partnership aims to increase enrollment rates in the Bachelor of Engineering (BEng) in Civil Engineering and the Master of Science in Offshore Engineering (MScOE) programmes, meeting the growing demand for skilled professionals and enhancing UTP's visibility in the industry.

UTP and Kolej Teknologi Antarabangsa Cybernetics Sign MoU to Foster Academic Collaboration

UTP and Kolej Teknologi Antarabangsa Cybernetics (KTAC) signed an MoU to enhance academic collaboration and unlock more value through partnership. One of the collaboration areas discussed includes providing placement for KTAC graduates to further their studies at the undergraduate level in selected academic programs at UTP, subject to the fulfilment of admission criteria.

The partnership also explores joint marketing efforts to promote programmes at both institutions, staff and student development initiatives, and knowledge transfer in the area of Learning Management System. UTP believes that KTAC will maximise this opportunity to engage with the university, not only by expanding the academic area but also by actively contributing to other areas of collaboration.



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- Ir Dr Abdul Azim Abdul Rahman
Director – Product Development Asia Pacific Product Engineering
Steelcase Office Solutions (M) Sdn Bhd
- Yunus Talib
Executive Director/Executive Vice President
Uzma Berhad/UZMA Engineering Sdn Bhd
- Ts Dr Liza Anuar
Head, Materials Engineering, Group Engineering
Perusahaan Otomobil Nasional Sdn Bhd (PROTON)
- Ir Ts Dr Davendren Vereya
Discipline Manager – Engineering Data
SBM Offshore
- Ts Dr Ridwan Mokhtar
Manager (Area Maintenance), Technical Services Department
PETRONAS Carigali Iraq Holding B.V
- Ir Mohd Yuza Mohd Yusof
Senior Manager, Engineering Management, Manufacturing & Engineering (M&E)
DRB-Hicom Bhd
- Ir Ts Dr Harris Abd Rahman Sabri
Principal Rotating, Technical Excellence
Centre of Operational Excellence (CoE), PETRONAS Upstream

Petroleum Engineering

- Syahir Luthfi Chan
Managing Director – Thailand, Cambodia & Laos
Schlumberger Overseas S.A.
- EUR ING Ts Mohamad Sukor Zainal Abiddin
Executive Director/Technical Director
EFTECH Director Solutions Sdn Bhd (KL)

- Louay Louis Laham
Chief Operating Officer, Drilling
Sapura Energy Berhad
- Dr M Faizal Sedaralit
Chief Scientist (Reservoir Engineering)
PETRONAS Research Sdn Bhd
- Anwar Husen Akbar Ali
Head of Petroleum Engineering Department (Head PED)
PETRONAS Carigali Sdn Bhd
- Allida Muhammad Said
Chief Operating Officer/Staff Engineer
Energy Quest Sdn Bhd
- Nazirah Bashir
OFS Country Leader, Malaysia
Baker Hughes
- Liong Sze Jon
Senior Manager, Business Development
Halliburton Malaysia
- Mohamad Hanif Hashim
Senior Vice President & General Manager
Petrofac Malaysia

Geosciences

- Shivaji Maitra
Director & Imaging Manager - Malaysia, Sr. Geophysical Advisor,
CGG Kuala Lumpur
- Abdullah Hj Sulaiman
Pengarah, Cawangan Perancangan dan Pengurusan
Jabatan Mineral dan Geosains Malaysia
- Devendran Arumugam
Gamuda Engineering
MMC Gamuda KVMRT (T) Sdn Bhd
- Oskar Pariang Pakpahan
Geophysical Advisor/Business Development Manager
UMD Petroleum Sdn Bhd

- Suhaileen Shahar
Custodian Petroleum Geoscience, PETRONAS
UMD Petroleum Sdn Bhd
- Azwa Jannah Abu Bakar
Staff Seismic Interpreter
PETRONAS
- Khairool Anwar Laksamana
Senior Geoscientist
PETROS

Computer & Information Science

- John Tay Jin Kiong
Honorary Secretary, MYAIRA and President,
ChangeMaker Network
MYAIRA & ChangeMaker Network
- Datuk Ts Dr Mohamed Sulaiman Sultan
Suhaibuddeen
Chief Network Security Officer
Malaysian Communications and Multimedia Commission
- Eidia Erriany Abdul Rahim
Managing Director & Executive Director
POIS Sdn Bhd
- Wan Rushaidi Imran Wan Abdul Razak
Founder and Managing Director
Assuring Consulting Sdn Bhd
- Alvin Gan Seng Heng
Executive Director & Head of Technology Consulting
KPMG, MY
- Dr Maslina Daud
Senior Vice President
CyberSecurity Proactive Services Division
- Kamarul Zaman Abdul Rashid
Director Programmable Platform Engineering (Penang)
Intel Corporation
- Aik Chong Phuah
Head of Digital Engineering
PETRONAS
- Datin Habsah Nordin
Head, Enterprise Data
PETRONAS

Management & Humanities

- Shamsul Bahri Sulasi
Head (General Manager) Risk Management, Governance
Strategic Relations, Malaysia Petroleum Management,
UPSTREAM, PETRONAS
- Evan Ngow
Chief People and Culture Officer
Prince Bank, Cambodia
- Tan Sri Datuk Amar (Dr.) Hamid Bugo
Chairman of Yayasan Kemajuan Insan (YAKIN) and
Chairman of the State Library of Sarawak
Founder, Sego Holdings Sdn Bhd
Chairman of Board:
 - » *Petroleum Sarawak Berhad (PETROS)*
 - » *Sapura Resources Berhad*
 - » *X-Fab Silicon Foundries SE, Belgium*
- Ariyan Jay Chinniah
Managing Director, Ideaworks Resources Sdn Bhd
Ideaworks Resources Sdn Bhd
- Izad Ismail
Director,
Multimedia University Foundation
- Dr Paul Lim Pang Kiam
 - » *Independent Non-Executive Chairman - Inta Bina*
Group Berhad
 - » *Independent Non-Executive Director & Audit*
Committee Chairman - Lagenda Properties Berhad
 - » *Independent Non-Executive Chairman - Engtex Group*
Berhad
 - » *Independent Non-Executive Chairman - SDS Group*
Berhad
 - » *Director & Group CEO - K. Seng Seng Corporation*
Berhad

Fundamental & Applied Science

- Abdul Rahim Othman
*General Manager PETRONAS Custodian & Group
Technical Authority, Group Technical Solution
PETRONAS*
- Chua Jong Huei
*Group R&D Manager
MAPA GLOVES Sdn Bhd*
- Sathish Komar Subramaniam
*Chief Operations Officer (Bactiguard AB)
Chief Executive Officer (Vigilenz Group of Companies)
VIGILENZ Medical Devices Sdn Bhd*
- Dr Ng Thian Hong
*Chief Innovation Officer
Harps Holding*

The UTP Annual Review 2023 includes reports, activities and events of Universiti Teknologi PETRONAS from 1 January to 31 December 2023. It is available in both print and online versions.

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