

WELCOME TO
UNIVERSITI
TEKNOLOGI
MALAYSIA



www.utm.my
innovative • entrepreneurial • global



2019/2020

ABOUT US

#IamUTM

VISION

To be a premier global academic and research institution, excelling in science, technology and engineering.

MISSION

To lead in the development of holistic talents and innovative technologies for universal well-being and prosperity.

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UTM is a leading innovation-driven entrepreneurial research university in engineering, science and technology located both in Kuala Lumpur and Johor Bahru, Malaysia.

It is renowned for being at the forefront of engineering and technological knowledge and expertise. UTM as the biggest postgraduate research university in technology has also established a reputation for innovative education and cutting-edge research, with a vision towards the development of creative human capital and advanced technological innovation.

UTM operates based on the core values of Integrity, Synergy, Excellence and Sustainability. These values guide our practices and they are embedded in the strategic thrusts that propel the University to greatness.

Our Corporate Tagline:

- Innovative
- Entrepreneurial
- Global

INNOVATIVE Outreach to Industries and Communities



Partnership with more than 160 Industries

Memorandum of Understanding (MoU) with Medini Iskandar Malaysia Sdn Bhd (MIM), the first private development company from Iskandar Puteri, has been signed in order to enhance talent and provide employment for UTM graduates in the future.

The role of strengthening the internationalization network between Industry - Academic - Government Alliance in Japan and South East Asia, can be seen in the involvement of UTM as the GTI Advisory Committee through the Global Technology Initiative (GTI) Consortium Symposium at the Shibaura Institute of Technology in Tokyo. The role of the GTI Advisory Committee is important to assist

GTI in improving the quality of education, nurturing global human capital, driving innovation and improving industry competitiveness. In addition, their expertise is needed in addressing environmental issues and disaster prevention in the Southeast Asian region.

In addition, various initiatives have been taken through the centers of industry excellence (ICoE,) Public Private Research Network (PPRN) and the Academia Industry Collaborative Forum (AICC) according to the NKEA cluster so that the university can fully utilize the value of cooperation that will eventually impact the university and society.

Go Abroad Competition Winners

Universiti Teknologi Malaysia (UTM), representing Malaysia, has won the 1st runner-up in the ABU Asia-Pacific Robot Contest (ROBOCON) 2017 which was held in Tokyo, Japan from 26-27 August 2017.

A multi-disciplinary UTM team consisted of thirty-five undergraduate students from four different faculties, i.e. Faculty of Electrical Engineering (FKE-24), Faculty of Mechanical Engineering (FKM-6), Faculty of Computing (FC-4) and Faculty of Education (FP-1). The team manager was Assoc. Prof. Ir. Dr. Mohd Ridzuan bin Ahmad from Faculty of Electrical Engineering.

Founded in 2002, ABU ROBOCON, an annual robotic competition, aims to be a platform for developing autonomous robots to help humans (residential and industrial) in their daily life.



Of the People, For the People

The Seawater Desalination (SW-DS) project is an alternative water treatment method which will ensure there is consistent water supply in Malaysia especially during natural disasters like floods or earthquakes.

The project headed by UTM Deputy Vice-Chancellor (Research and Innovation), Datuk Prof. Dr. Ahmad Fauzi bin Ismail, has benefitted villagers from Kampung Senok in Bachok, Kelantan in overcoming the water shortage problem.

The water treatment plant is capable of producing 500,000 litres of treated water a day which can accommodate up to 10,000 people daily.

The project was fully funded by the Higher Education Ministry through the Translational Research Grant Scheme (TRGS) under the ministry's Sustainable Water Resources Strategic Research Action Plan. The funds from TRGS would be utilised on research projects that would benefit Malaysians as a whole.

The project was a collaboration between Advanced Membrane Technology Research Centre, Universiti Teknologi Malaysia, and Universiti Malaysia Terengganu involving 16 local researchers.



ENTREPRENEURIAL



UTM researchers have embraced the entrepreneurial culture and this can be seen from an increase in the number of spin off companies registered so far. Spin off company is defined as a company that is exploiting the university or research institution intellectual property

Spin Off Company

iSmartUrus Sdn Bhd was incorporated for the sole purpose of commercializing UTM's innovative product SMSParkir© and iSmartPay© (a novel end to end smart parking solution) with the assistance from the Cradle Fund under the Ministry of Finance and Agensi Inovasi Malaysia under the Prime Minister's Office. It was founded by Prof Dr Sevia M. Idrus who has developed a parking payment method that uses a text message (SMS) system, that enables the public to pay their parking fees by sending an SMS or through a free mobile phone app without the use of coupons. The new parking system was part of UTM's effort in improving the effectiveness of parking operation using mobile phones. The system was adopted by the local councils in the State of Johor and has expanded to local councils throughout the country.

SHE Empire Sdn Bhd (SHE Empire) was founded by Assoc. Professor Dr Siti Hamidah Bt Mohd Setapar who has produced the country's first cosmetic products based on green nanotechnology. The products are known as Natural Kiss

Micelar Series. The skincare products were produced with seven research ingredients imported from Japan. The use of micellar technology also helps to boost the effectiveness of facial cleansing and make up removal up to five times compared to normal washing.

DF Automation & Robotics Sdn Bhd which was founded by Dr Yeong Che Fai and two friends, designs and manufactures automated guided vehicles (AGV) for industry use. AGVs are mobile robots that can move automatically and are very useful to carry loads in a manufacturing facility. DF Automation also provides other robotic solutions for industries, such as universal robots.

Its customers include Western Digital, Flextronics, Jabil, Celestica, Esquel, Sanmina and Sandisk. Products are exported to regional markets including Singapore, Vietnam and Indonesia. There is also interest from Mexico, Brazil, Phillipines, Taiwan, China, Hong Kong, Saudi Arabia and UK.

Universiti Teknologi Malaysia practices a holistic entrepreneurial ecosystem that fosters entrepreneurship among its students, encompassing not only the more conventional notion of entrepreneurship which entails the ability to generate revenue and contribute towards economic growth, but also incorporating entrepreneurial mindedness, which involves the inculcation of strong spirit and determination, together with the ability to formulate strategies capable of achieving set goals. The synergy between these goals and the student-entrepreneur end product can be seen in how UTM integrates entrepreneurship in its undergraduate curriculum

UTM has embarked on several initiatives in nurturing entrepreneurs and entrepreneurial minded students which encapsulate UTM's own entrepreneurial unique mould. One scheme put in place is the UTM microcredit scheme that provides an interesting opportunities. -free loan to students. They are encouraged to conduct their businesses in groups, which allow them to generate ideas and also manage and safeguard their operations better. Several projects have shown promise, one of which is the MyAgrosis Project. This is an agriculture-based project venturing into crops such as chilli pepper, lemongrass, and turnips. The project has received technical assistance from agricultural agencies in Malaysia like

the Malaysian Agricultural Research and Development Institute (MARDI).

Another initiative is the FESKO or Convocation Festival Fair. Students form business enterprises which run and manage the fair. Students are given advice and guidance and they have to look for sponsors for the event. What is notable about this project is that after each FESKO, the students without fail will contribute between RM5,000 to RM10,000 from their profit to the UTM Endowment fund.

Recently, a group of students under the 5 Excellence Track Program (5ETP) had successfully organized the convocation festival which ran for 7 days. They demonstrated their skills in putting together an impressive festivals which have showcased among others, 'silat' (a traditional martial art) demonstration, inspirational talk by guest speakers, blood donation drive, petanque, coloring contest for children, and singing performance by UTM students and guest artists. Part of the profit that they reaped from the event was donated back to UTM and also donated to the community.

Bravo to our young leaders!

UTM XCITE

UTM Centre for Student Innovation and Technology Entrepreneurship (UTM XCITE) has high ambition regardless of their humble beginning. Formerly known as UTM Technology Entrepreneurship Centre (UTMTEC), UTM XCITE was established in 2013 after a merger with the Centre for Student Innovation (CSI) in October 2017. The main objective of UTM XCITE is to be a one-stop collaborative centre in innovative and entrepreneurial ecosystem, in order to prepare UTM communities as well as surrounding communities in this fast-moving era. Throughout its establishment, UTM XCITE has the reputation in assisting students as well as staff in unleashing their inner entrepreneurial and innovative potential. Several initiatives such as Wealth Creation Lab, TEDxUTM, StartUp Weekend JB @UTM, MTDC Business Challenge (MBC), UNIMAKER and Young Maker

Challenge were organized in order to nurture UTM students with skills that are useful for their career development or entrepreneurial journey. Some of these initiatives were held annually and fully organized by UTM students. TEDxUTM for instance is one of the success public speaking events that have managed to invite various prominent speakers from various backgrounds to give inspiring talks. Another flagship programme of UTM XCITE is MBC, which is a competition organized by MTDC in collaboration with UTM XCITE. In 2018, MBC2018 had attracted the participations from more than 200 hundreds IHLs students around Malaysia. In the event, UTM had managed to win two prizes, the first runner-up and fourth places.

Both teams, which were coached by UTM XCITE, were offered grants and mentoring from Malaysia Technology Development Corporation (MTDC) in order to assist them in developing and commercializing their products. Another proud achievement of UTM XCITE is Nescafe UTM which is entirely managed by UTM students. They had secured 2nd runner-up in National Nescafe Youth Entrepreneurship Programme Award in 2018.

Implementation of these entrepreneurial initiatives supports the aspirations of UTM to produce competent graduates who are globally competitive, contributing to nation building, wealth creation and universal prosperity.



Entrepreneurial Support

As a dynamic Research University, UTM Strives to provide friendly ecosystem to support the product of its community. UTM Innovation and Commercialization (UTM ICC) Centre was established in 2010 to help researchers to protect and to commercialize their invention and innovation.

MaGICX which was established in 2013 is a strategic partnership between UTM and Iskandar Regional Development Authority (IRDA). It functions as an accelerator for the Johor State to promote and support the delegates and ecosystems creative industry which focuses on game and gamification and the enrichment of digital content.

UTM Ecosystem has produced talent who are not only contributing to the university

but also influencing people in the Johor State, specifically, to be involved as entrepreneurs.

Our Centers - UTM ICC, UTM XCITE and MaGICX UTM - have been acknowledged by the state of Johor as being part of the local technology support ecosystem as incubators/accelerators in the entrepreneurial ecosystem.

Three (3) of our talents have been identified as strategic influencers of 2018:

1. Prof. Dr. Sharizal Sunar – (MaGICX, iHumen)
2. Assoc. Prof. Dr. Ramesh Zaidi Rozan (UTMXCITE)
3. Dr. Che Fai Yeong (DF Automation)



GLOBAL



Today's challenging environment in socio-economics, politics and educational demands has forced higher educational institutions to transform themselves to remain relevant and effective in confronting the demands of the present global scenario. Developing nations including Malaysia cannot remain static or complacent with our present status quo. We need to leapfrog from the current labor-intensive economy into an innovation-led knowledge economy to remain competitive.

Higher education institutions have a major role to play to nurture a fertile academic culture and encourage a vibrant intellectual ecosystem that promotes highly skilled human capital who are creative, innovative and ready to face the challenges of the future. At the same time, university as a microcosm of a large community should lead in pertinent issues facing the world.

Strategic Collaboration

UTM is actively engaged in research collaboration with institutions of higher learning and organisations abroad in areas of mutual interest.

The UTM & Imperial College collaboration has successfully secured the Malaysia Thailand Joint Authority (MTJA) research grant entitled Energy Recovery in Petroleum Processing via Integrated High Performance Technologies.

A research cess fund amounting USD 4.89 million has been allocated by the Malaysia

Thailand Joint Authority (MTJA) for UTM-Imperial College to undertake this particular research. UTM & Imperial College is also partnering with King Mongkut's University of Technology Thonburi (KMUTT) for this project.

In addition to the flagship collaboration activities, UTM also has formal ties with more than 200 institutions abroad. The ties facilitate various forms of mobility for students and academic staff, and also academic programme.

Global Recognition

Our staff, Prof. Dr. Khairiyah, a champion in Engineering Education and an expert on Problem-based Learning (PBL) received the Student Platform in Engineering Education Development (SPEED) Mentorship Award at the World Engineering Education Forum (WEEF 2017).

Citing a source which explains the selection, "Her innovation in teaching and learning via Cooperative Problem-Based Learning has positively impacted students' problem solving assets and developing more constructive skills. With appropriate scaffolding such as motivation, encouragement, and facilitation, she helps her students to construct new engineering knowledge and also coaches them to refine the skills they already have."

Another staff, Assoc. Prof. Dr. Norhayati Abdullah was conferred the Top 50 Most Impactful Leaders in Water + Water Management award earlier this year.

Our talents continue to be acknowledged for their expertise:

- World Champion in Engineering Education
 - Prof. Dr. Khairiyah Mohd Yusof
- President of MIT Post-Doctoral Association
 - Dr. Rozzeta Dollah
- The Analytical Scientist Magazine's Power List 2018 (Top 40)
 - Assoc. Prof. Dr. See Hong Heng
- The World Academy of Science Award in Engineering Science 2019
 - Prof. Datuk Dr. Ahmad Fauzi Ismail
- Leading award winning project recognized by Japan (Okomoyama)
 - Assoc. Prof. Dr. Fatin Aliah Phang Abdullah
- Loreal- UNESCO for women in Science Fellowship 2018 (Top 50 Most Impactful Leaders in Water Management)
 - Assoc. Prof. Dr. Norhayati Abdullah



Global Prominence

UTM has established the first Franchise Campus overseas through a strategic partnership with Qaiwan University, where UTM will offer its academic programme in franchise mode to the local students in Kurdistan, and the students will get the degree from UTM.

At present, a total of 128 local students of Kurdistan have registered in four undergraduate programmes offered by UTM.

The programmes are Bachelor in Computer Science (Software Engineering) and Bachelor in Computer Science (Computer and Network Security) under the School of Computing, Bachelor of Management (Technology) under the Azman Hashim International Business School (AHIBS), and Bachelor of Science (Human Resource Development) under the Faculty of Social Science and Humanities.

The programmes are under the Faculty of Engineering and AHIBS.



The Global Experience

UTM encourages its students to get global experience by doing internship abroad or by attending summer school or short courses overseas. Here are what some students shared about their invaluable experiences.

"I believe that among the wonderful experiences gained in Harvard, is the teaching and learning process itself, which is indeed different from what we have in Malaysia. The essence lies in classes that are full with lively discussions where students can actively participate, be it in giving opinions and criticism or even asking questions for further understanding.."

Nurul Farah Zulkifly,
GOP-Harvard Participant

Melissa Yap Hsiao Theng,
GOP-Harvard Participant

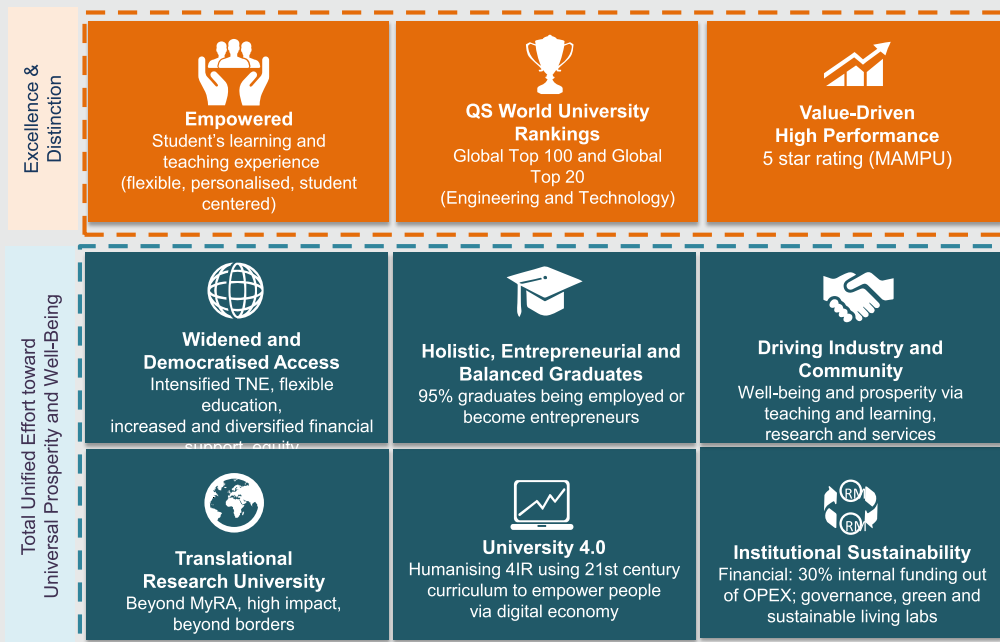
"..the Summer School program is a fantastic and wonderful experience. It was a productive and fruitful seven week programme that consists of not only experience with different learning styles, but also an experience of making friends with different people from all over the world, gathering together, studying hard during the weekdays and planning hard for fun weekend out together.."

".. I am extremely grateful for the knowledge and support I gained from family, friends and lecturers throughout my four years of undergraduate studies in UTM. My application for the internship programme in one of the world's most prestigious universities, the University of Cambridge has been successful during my third year. I was placed in the Department of Obstetrics and Gynaecology where I worked on developing three software programmes and mobile app projects for the benefit of doctors and pregnant women in the hospital. Currently, I am working as a researcher at the University of Cambridge in the Institute of Manufacturing, Department of Engineering in the Distributed Information and Automation Laboratory (DIAL) group."

Yong Bang Xiang
Internship -
University of Cambridge

In our effort to move from being a good to a great university, UTM has charted a journey to achieve the desired state by the year 2025. This desired state sums up the unified efforts of UTM community towards universal prosperity and well being, and achieving excellence and distinction.

DESIRED STATE BY 2025



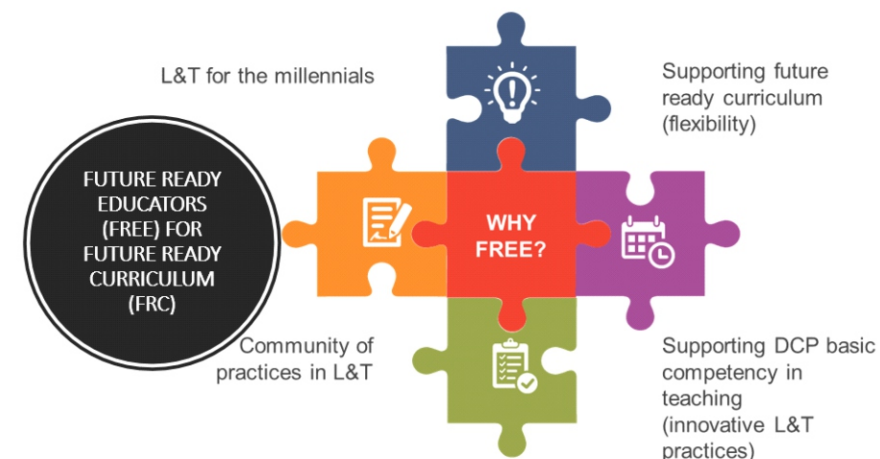
Facing 21st Century Teaching & Learning

UTM always keep up with the latest development to make sure that our staff and students are well equipped to meet the challenges of the world.

These are our continuous efforts to enhance our teaching and learning ecosystem.



Future-Ready Educators (FREE)

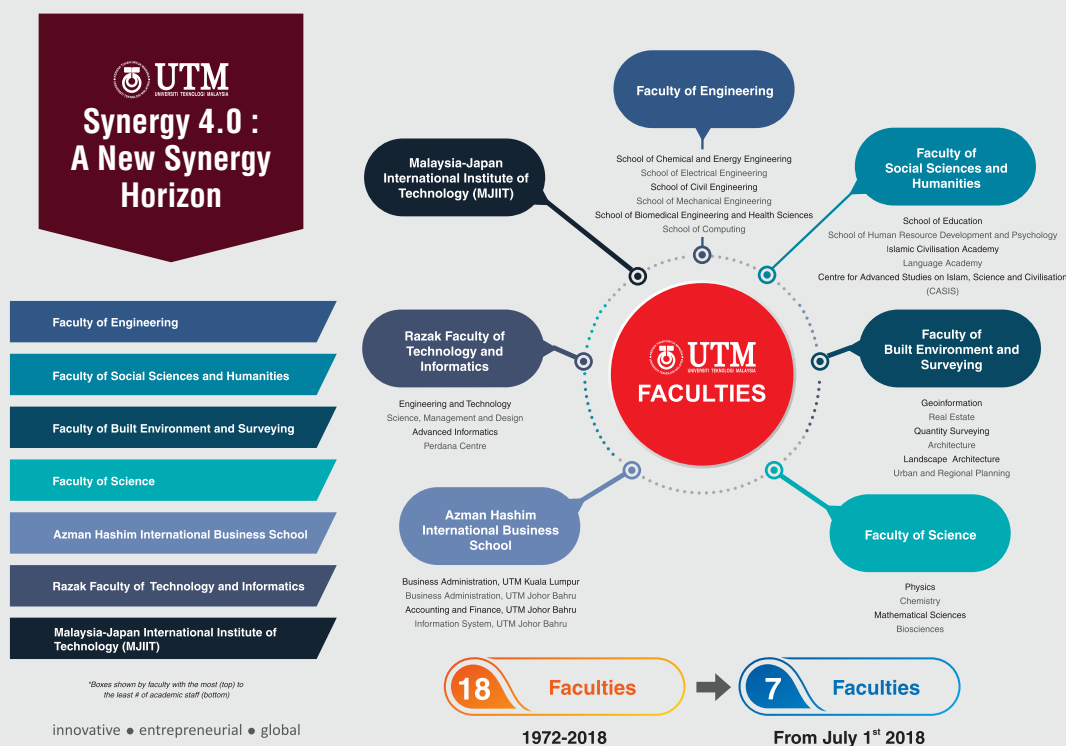


MOVING FORWARD

To stay relevant, change is inevitable. With this in mind, UTM has embarked on a brave journey to change our structure to reflect the synergy that we want to embrace to face the years ahead.

We have restructured our faculties so that we can have a more inclusive ecosystem where multidisciplinary work is encouraged and resources are better optimized.

And our research is inspired by the five major niche areas and five Research & Innovation strategies that we have devised based on our unique strengths in research, and more importantly with the vision of addressing the national and global grand agendas.



Income Generation

Creative ways of generating income from not only research output but also utilizing research-proven test rigs, expertise and laboratory equipment to ensure research finance sustainability

Innovation & Commercialization

New age of researchers no longer engage only in traditional research but also incorporate entrepreneurial skills to bring laboratory results to the market in the most ingenious ways, exploring new & disruptive innovations

Frontier Materials

Producing advanced materials with sustainable approach ensures real-world application empowered by up-to-date processing & manufacturing technologies

Resource Sustainability

With various mounting pressures like resource scarcity & climate change, UTM focuses on addressing such major agendas, playing an important role in bringing the concept of sustainability in society and resources

Branding

Branding initiatives ensure high visibility of UTM's researchers & expertise while continuing to bring the impact of research outside of the campus

Innovative Engineering

UTM's traditional strength in engineering seeks to revolutionize established technology while exploring the field of high performance infrastructure to address real world mobility

Research Funding

New research funding models are actively pursued in which the dependency on government funding is reduced, while increasing external funding via not only large, international funding but also small, quick-turnover networking grants

Smart Digital Community

The most diverse community of researchers brings the best out of multi-disciplinary research focusing on smart and data driven concepts and solutions

Health & Wellness

UTM strives to create a knowledge-based bio-economy platform which leverages the existing bioresources integrated with bioengineering and cutting edge bioinformatics techniques

Publications

Publication in higher tier journals enables higher outreach to the scientific community where quality research output ultimately makes us understand & make the world better

UTM EXPERIENCE

We offer the best of both worlds in the green campus and the vibrant, modern KL@Lifestyle for students, staff and visitors.



UTM Lifestyle



Loving, Caring & Excellence



UTM Produces Leaders

Our talents and alumni are world leaders, leading in their own capacity



Prof Habibollah Haron

President,
Qaiwan University



Prof Amran Rasli

Vice Chancellor,
Sumait University, Zanzibar



Prof Anis Sagaff

Rector,
Universiti Sriwijaya



Prof Azraai Kassim

Vice Chancellor,
Universiti Teknologi MARA

Engineering for Sustainable Development

Our niche area is Engineering for Sustainable Development. Therefore, we support the SDG initiatives at the university level and as part of our commitment towards a sustainable future.

SUSTAINABLE DEVELOPMENT GOALS





Enjoy the Difference That UTM Has to Offer

Study at UTM, the most prominent university in the region specialising in Engineering and Technology. Enjoy a dynamic academic venture in a tropical campus environment at its campuses in Johor Bahru, and Kuala Lumpur.

UTM provides an enriching learning environment with more than 260 foreign graduate faculty members and 3,000 international students enrolled in various disciplines working in harmony with their local counterparts. UTM also empowers its students by opening their eyes on the world through the International Mobility Programmes, which have seen close to 10,000 students travelling abroad to more than 24 countries.

Make your dreams come true while enjoying the adventure of a tropical campus climate in UTM. Stay with us at our Scholar's Inn, Johor Bahru and UTM Residensi, Kuala Lumpur with opportunities to engage in a vibrant knowledge culture and dynamic recreational atmosphere.

<http://www.utm.my/edutourism/ecocampus>



