



DREAM HOUSE

UTM Solar Group Home, has managed to hold an exhibition at the Solar Decathlon China 2013, (SDC2013) in Datong, China on July 15 to August 18, 2013 which was participated by 23 teams from higher education institutions from around the world.

The uniqueness UTM Eco Home has been successfully attracting developers in Datong, China to buy the prototyping solar home. Home solar power is known as UTM Eco Home sold at RM 350,000 after display at Solar Decathlon China 2013, (SDC2013) in Datong, China on July 15 to August 18, 2013 .UTM Eco Home built by Solar Home- UTM group consisting of 34 staff and students from this faculty, led by Prof. Dr . Zaimi Muhd Abd Majid represent Malaysia to the competition Solar Decathlon China 2013.

According to him, UTM Eco Home features a comfortable and flexible designs and features high-tech equipment systems and smart home apart can be a work space and office.The competition was the first held in the Asian region and UTM Eco Home has won the category of energy balance, one of the ten categories.

The Category required participants to have a balance in electricity consumption not to exceed the energy generated by solar panels. UTM Eco Home has got full marks for this category.

SDC2013 was inaugurated by the Mayor of Datong on August 2, 2013. The opening ceremony was attended by the Deputy Vice -Chancellor (Research & Innovation), UTM, Y. Prof Hon. Ir. Dr. Azraai bin Mohd Kassim UTM accompanied by senior officials as well as officials at the Malaysian Embassy in China. He said, based on the achievement, UTM hopes can participate in international competition in the future. This exercise is an opportunity for numerous other ventures in the sharing of expertise, particularly for rocket research activities in the country.

“It will also increase the level of knowledge and skills of the various parties involved and are confident that these efforts will position the university to greater heights on the world stage,”he said.



UTM Solar Home at Solar Decathlon China 2013, (SDC2013) at Datong, China



ESEER TEAMS SHINE IN TAIWAN

The team, from the Faculty of Civil Engineering, won nine awards at the 'Introducing and Demonstrating Earthquake Engineering Research in Schools (IDEERS)', Taiwan from 13th to 16th September 2013. ESEER team won 7 awards for the undergraduate level categories but the team from the faculty fail to grab the overall winner category as compared to last year. Omega damper concept highlighted the bold engineering structures and has attracted the attention of almost all the participants and visitors present.

This year the faculty has sent two teams, involving 9 students, at undergraduate level and one team from the postgraduate level led by Mohamad Nor Asmawi Hisham, Dr. Hishyam b. Bakari and Mr Zamri b Ramli. The competition is to promote earthquake engineering and seismic protection education and encourage students to participate in a creative scientific competition, a program entitled "Introducing and Demonstrating Earthquake Engineering Research in Schools (IDEERS)" will be held at the Taiwan National Center for Research on Earthquake Engineering (NCREE).

This program was jointly organized by NCREE, the National Applied Research Laboratories (NARL), the National Center for Research on Earthquake Engineering (NCREE), the National Science and Technology Center for Disaster Reduction (NCDR), and the Asia-Pacific Network of Centers for Earthquake Engineering Research (ANCER), University of Bristol United Kingdom. Around 101 teams and 484 participants

from Singapore, Philippines, Indonesia, Germany, Greece, India, Sri Lanka, Hong Kong, South Korea, China, Vietnam, Japan, Malaysia, Thailand, Russia, Australia and others took part in the competition.

According to Dr. Norhazilan, the previous team leader for the past 3 years competition, said that the team have problems with their shaking table. Now his team, known as RESA, has been appointed as international team organizer for this competition. His team was the first team who were involved as judges for post graduate competition this year.

The participation of the staff as committee members is widespread and have a huge impact on the reputation of Faculty of Civil Engineering, UTM and Malaysia. Dr. Norhazilan was also invited to give a short speech before the participants, British Council representatives, representatives NCREE and NAR Lab.

Below is the awards the team won:

Undergraduate Category

- Best Structural Engineering Design Award
- Best Architecture Design Award
- Best Oral Presentation Award
- Best Poster Presentation Award

Post graduate category

- Structural Earthquake Resistance Design
- Best Poster Presentation Award



CIDB MALAYSIAN CONSTRUCTION INDUSTRY EXCELLENCE AWARD 2012 INNOVATION SPECIAL AWARD

CIDB Malaysian Construction Industry excellence Award MCIEA, Special award under the innovation category, has Universiti Teknologi Malaysia being announced as the recipient of CIDB MCIEA Special award under the innovation category at the glamorous Malaysian Construction Innovation Excellence Award, MCIEA, 2013 ceremony.

The award was given to UTM-Faculty of Civil Engineering (UTM-FKA) delegation for their accomplishment in the International Demonstration of Earthquake Engineering Competition (IDEERS 2012) held last year in Taiwan. The competition was organised by National Centre for Research on Earthquake Engineering (NCREE) Taiwan and British Council.

UTM-FKA has successfully bagged three awards under the postgraduate category in IDEERS 2012 including 1st runner up and best engineering design for their stunning energy dissipating system known as B-DNA damper designed by Assoc. Prof. Dr Norhazilan Md Noor, Lim Kar Sing, Rosilawati Mohd Rasol, Siti Nor Fariza and Libriati Zadasti. The system was purposely designed for IDEERS 2012 competition to minimise seismic effect on the structure model during the shaking test.

The model is considered to be innovative because it consist of the huge volume of friction area and the 3-dimensional helix shape of the system. Throughout the IDEERS 2012 competition, the system was proven to be capable to increase the flexibility of the structure, reduce torsion, improve structure comfortability and increase vertical load capacity.

The decision by eminent CIDB selection committee was based on the international recognition, novelty and uniqueness of the innovation, systematic and detail experimental and theoretical testing for performance verification, practicality and applicability of the innovation, measurability of the benefit of the innovation and significant impact to the community or organisation.

The MCIEA award has strengthened UTM reputation as the leader of innovation culture in the country. UTM-FKA had also previously won the 2009 MCIEA R&D Project of The Year award and 2010 MCIEA Innovation award for outstanding achievements by Prof Dr Muhd Zaimi Abd Majid and Assoc. Prof. Dr Ahmad Baharuddin respectively.





MOU UTM FACULTY AND KUMPULAN IKRAM SDN BHD

Universiti Teknologi Malaysia (UTM) signed a memorandum of understanding (MoU) with IKRAM Sdn Bhd for academic excellence and research innovation collaboration.

Professor Dr. Shahrin b. Mohamed said the cooperation was for a duration of five years, focusing on joint research and development, consultation, staff training, student internship and practical, and for usage of IKRAM and UTM Technical Lab. He said the objectives of the MOU is to strengthen, promote and develop collaboration in research, business, and academic Engineering Consultancy Services, Engineering Services Work and Capacity Building services.

By this joint venture, it can also enhance staff expertise and students experience at the work place. Besides, it can also create bilateral relationship in harmony between University and industry. Prof Dr Shahrin signed on behalf of the UTM Vice Chancellor while IKRAM was represented by Ir Tan Swee Kee, Executive Director of Kumpulan IKRAM Sdn Bhd.

Shahrin said the relationship between UTM and AASTMT was readily established with consultation and research project.

With this MOU it would further strengthen the collaboration which covers on site investigation, geotechnical, forensic engineering, structural and material assessment testing, highway and transport planning, pavement evaluation, asphalt technology and quality control architecture and quantity survey.

“Meanwhile, Ir Tan Swee Kee hoped that the cooperation with UTM would be a successful venture leading towards research excellence for both parties.





9th International Conference on Geo-Technical & Transportation Engineering in Conjunction with 1st International Conference on Construction and Building Engineering.

JOINT CONFERENCE GEOTROPIKA – ICONBUILD

Sustainability Iconstruction For Better Future

The international forum is for the presentation of new advances and new research finding in field of Civil Engineering. The three days conference brought together leading researcher, engineers and scientists in the material and processes field of interest from around the world. The conference was held on 22nd until 24th October 2013 at Persada Johor Bahru.

Beside the conference, the participants participated in the technical visit at Iskandar Regional Development Authority (IRDA) & UEM SUNRISE and were given the briefing regarding the progress of the construction projects around the areas visited. The conference was officiated by Y.B. Datuk Dr. Abu Bakar Mohamad Diah, Deputy Minister, Ministry of Science, Technology and Innovation and UTM was represented by Prof. Ir. Dr. Mohd Azraai bin Kassim, Deputy Vice Chancellor (Research & Innovation).

Altogether, 6 keynote speakers presented their papers and they were Prof. Dr. Gordon Airey Professor, University of Nottingham, United Kingdom; Prof. Dr. Muhd Zaimi Abd. Majid, Dean of Construction Research Alliance, UTM; Shahar Effendi Abdullah Azizi State Director, Department of Mineral and Geoscience Malaysia, Johor; Prof. Dr. Niki Lukviarman. Rector, Universitas Bung

Hatta, Indonesia and Assoc. Prof. Dr. Othman Che Puan and Assoc. Prof. Dr. Mushairry Mustaffar from UTM.

About 80 researchers, scientists and engineers joined the conference that aims to establish scientific link at international level for sharing and disseminating valuable information on activities in Civil Engineering researchers in developing countries. About 33 papers in related field were covered during the conference. This conference offers opportunities for young researchers, postgraduate students and professionals to share ideas related to research areas in Civil Engineering in developing countries. It also provide opportunities for future planning and initiative of collaborations and joint-venture research. The committee conference was led by Associate Prof Dr. Mohd Rosli Hainin and Assoc. Prof Dr Rosli Zin.





WE WON 3 PRIZES IN CONCRETE PONTOON COMPETITION 2013

Teams from the Faculty of Civil Engineering, Universiti Teknologi Malaysia (UTM-FKA), bagged three prizes in the 2nd National Concrete Pontoon Competition (CPC) 2013, organized by Faculty of Civil and Environmental, Universiti Tun Hussien Onn Malaysia (UTHM) and co-organized by Concrete Society of Malaysia (CSM).

The P-MiC Team, consists of Lee Hoong Pin, Nur Hafizah binti Abd Khalid, Mohd Jazmeer Fikri bin Abd Aziz and Yeoh Kian Khon, under the supervision of Dr. Abdullah Zawawi bin Awang won the third place of the Main Category for the sustainable materials used, innovative, creative and stability design of pontoon concrete, parallel with the main objective of the CPC 2013, i.e. to develop creative work in designing and building of concrete structures and to promote a culture of sustainability by using waste materials. The P-MiC Team also won the first prize for the Best Poster and Presentation with their 3D poster, and was given the most attention during the competition.

The pontoon concrete designed by P-MiC Team has a compressive strength of 8.8 MPa and lightness of 13.41 kg, and successfully sustained 11.04 kg of external load to remain afloat.

Second pontoon team, consists of Ooi Theam Yiew, Fatimah Hafifah binti Mohd Hanafi, Ng Chiah Ching and Ahmad Shazren bin Ahmad Rashdi, also under the supervision of Dr. Abdullah Zawawi bin Awang won the second prize for the Best Poster and Presentation.

UTM-FKA sent a total of 8 teams to participate in this competition under the supervision of Dr Mohd Yunus bin Ishak, Dr Zaiton binti Haron, Dr Ramadhansyah bin Putra Jaya and Dr Abdullah Zawawi Awang. There were alt together 60 teams comprising industry players, researchers and students at the event which was held at the Jamilus Research Center (JRC), UTHM at 11 – 12 Disember 2013.





MANAGING WATER ENVIRONMENT IN TROPICAL COUNTRIES

Summer Course Program Enhanced Student Global Experience

Group of students from the faculty have the opportunity to participate in a summer course program at Instituted Technology Sepuluh Nopember (ITS) Surabaya, Indonesia from 19 August to 6 September, 2013.

According to Dr. Khalida, the program coordinator, the group consists of 9 second year students. Two faculty staff involve d in this project are Prof Dr Mohd Razman Salim and Dr Shamila Azman. This course is designed to expose the participants in the various aspects of water quality management for river catchments, reservoirs and lakes.

The course emphasizes on some key issues in monitoring and in the assessment of water quality and the impact of water pollution to the environment. The participants will find a wide range of material covered and its quantitative nature through project works will be of benefit to them.

The three weeks program equivalent to 3 credits student learning time was conducted through Field Trips :

- Polluted and clean river
- River water sampling activities
- Estuaries & mangrove areas
- River rehabilitation
- Flood control facilities
- Man-made wetland
- Natural river

Group or individual presentation related to project that are assigned within the duration of the program.

Students were taken on a field trip to Eco Wisata Mangrove located at East of Surabaya by a passenger boat to the mangrove planting site. They have the opportunity to experience mangrove planting of 70 saplings. Each student was given a chance to plant about 3 to 5 mangroves. The second field trip was the Malang Tour, Selorejo. They took the boat ride to wander around Selorejo to take water samples and Benthos (Invertebrates).

In this program students need to do the laboratory test for analyzing the water samples and Benthos samples taken from Malang. They need to identify the types of Benthos and analyze COD, BOD, Nitrate and Phospate condition. Through this program student was exposed to do research project related to their field.





UTM SUMMER COURSE ON CONSTRUCTION MANAGEMENT AND SUSTAINABILITY

The faculty, in collaboration with Fakultas Teknik Universitas Islam Sultan Agung (UNISSULA), Indonesia has conducted Summer Course on Construction Management and Sustainability on 19 August 2013 - 6 September 2013 (3 weeks) at UTM Johor Bahru and Kuala Lumpur.

UTM Summer course is designed to expose the participants/students to the various aspects of construction management and sustainability. The participants/students will find a wide range of material covered and its quantitative nature through project works and laboratory testing will be of benefit to them. The students, who finished successfully are entitled to get transfer credit and will be calculated in their CGPA.

This course Assessment is based on both individual and group presentation related to the projects that are assigned within the duration of the program. At the end of the course, participants/students should also be able to demonstrate capability of working in a team and some acquirement of contemporary knowledge.

The program was conducted through lectures, building activities, technical visit to Ideal House Sime Darby, Petaling Jaya, KLCC, Diamond Building, Putrajaya (Platinum Certified GBI), Tanjung Piai National Park and Renewable Energy Farm, Rimba Terjun, Pontian

At the end of the program, students were required to submit the report and present to the panel of lecturers. The program was coordinated by Dr. Rozana Zakaria together with four others academic staff and two technical staff.

Objectives of the course

- Ability to describe and illustrate IBS construction techniques in building construction and apply IBS Scoring and Build ability Appraisal systems;
- Ability to use planning software for planning construction works;
- Ability to describe and evaluate various NDT methods and carry out NDT tests;
- Ability to identify and assess elements of sustainability for achieving sustainable construction.



STUDENT AND FACULTY STAFF SHARE TECHNOLOGY TO COMMUNITY

Simenfero Project

A community service can be a source of inspiration for students who realize their responsibility and suggest ways to improve quality of life in their community. It could provide the direction they can take to serve public interest. Community service provides student with a chance to develop and practice these skills i.e. leadership and teamwork skills. Community service is important for student to help them develop their leadership and teamworking in the future.

A group of students from the faculty together with university staff have implemented state technology development projects and acquisition of knowledge that can help boost the economy of the local community and provide opportunities for staff and students to serve the local community in the Dato Jaluk , Benut Square Pontian.

The activities organized in the program involved the students giving Motivation Workshop to the prospective SPM and PMR candidates, Cooking Workshop for the house wife, Games Workshop, Folk Culture Night, Mathematics Workshop for primary Student, Funeral Management Workshop, Fiberglass Workshop and health screening for villagers. The program, known as Carnival's Entrepreneurial Community Service in collaboration with other departments including the Office of the Registrar and Tun Razak Residential College, Center General Course and curriculum and the faculty.

The program also received support from the Johor State Government, Member of Parliament Pontian and Pontian District Office. The main objective of this program is to create awareness among the local community about

the importance of a comprehensive human development in the context of the importance of knowledge and new technologies to develop our present capital income. It helps in opening the minds of local people to be more creative in designing equipment for daily business. It also aims to foster the spirit of tolerance and cooperation between students and the local community.

The program was inaugurated by the YB Datuk Ahmad Maslan, the Member of the Parliament , Pontian and who is also the Deputy Minister in the Prime Minister's Department. The theme for the program is "EXCELLENT STAFF AND STUDENTS IN GIVING BACK TO THE COMMUNITY". The two-day program attended by 15 students of general courses and curriculum, 13 students and 5 faculty of civil engineering faculty led by Dr. Abdullah Zawawi bin Awang started on 22 to 24 November 2013.



Civil engineers play a big part to produce Sustainable

Adhering to the principle everyone is entitled to have a better life. The third year student, Bachelor of Civil Engineering is concerned with the environment a teenager, especially on social issues and the less fortunate. Pangiran Saadan bin Pangiran Saidin, 22 years old son to 3 of 4 siblings from Kota Kinabalu, Sabah.

He was among the top students, excellence in academic and active in the outdoors. Enjoyed joining activities in the service community. Among the activities are pursued Community Service Program at the Center of Special Care Human Welfare Organization, Johor Bahru, organized by the College of Tun Hussein Onn, UTM, Community Service Program Budi Home Orphanage Pontian (CARE) and Visit to Orphanage Ar Rayyan, Johor Bahru organized by the Faculty of Civil Engineering UTM. He was a winner in the contest inventive Water Filter at the faculty level.

Received his early education at Sekolah Kebangsaan Sri Gaya, Kota Kinabalu (1999-2004), pursue secondary school in La Salle Secondary School, Kota Kinabalu (2005-09). After finishing high school, he continued his studies at the Central Foundation University (2010-11) and furthered his studies at the Faculty of Civil Engineering UTM until now .

His father is managing car sales business and his mother was a teacher. Interest in the sport of Futsal and the holiday is his favorite activity. Among the interesting places ever visited were Singapore, Indonesia and Brunei. Travelling can gain new experiences and getting to know the people and way of life of others. He joined the Summer School Program in Universiti Sepuluh November, Surabaya organized by faculty last year.

His family is very concerned about their children's education and always encouraged their children to be independent . Mix of Chinese and Iban is very active in the College and the Faculty. Very interested in the field of Civil Engineering and Civil engineer role which is very important in determining the well-being of living. The Environment is very important in determining population living comfort .



Among the most admired country project is the construction of the Stormwater Management And Road Tunnel or 'Smart Tunnel' in Kuala Lumpur. The "" or "SMART Tunnel", is a storm drain and road structure in Kuala Lumpur, Malaysia, and a major national project in the country. The 9.7 km (6.0 mi) tunnel is the longest stormwater tunnel in South East Asia and second longest in Asia.

This project is in a very unique and really test the expertise of engineers. This tunnel is to solve the problem of flash floods in Kuala Lumpur and also to reduce traffic jams along Jalan Sungai Besi and Loke Yew flyover at Pudu during rush hour. There are two components of this tunnel, the stormwater tunnel and motorway tunnel. It is the longest multi-purpose tunnel in the world.

In 2011, the SMART tunnel received the UN Habitat Scroll of Honor Award for its innovative and unique management of storm water and peak hour traffic.

As an engineer, our role is to influence all the stakeholders in realizing the desire to build more affordable housing in the country. The phenomenon today, developers are building luxury homes for short-term profit's cause low-and middle -income people cannot afford to buy a home.