



CENTRE FOR ENGINEERING EDUCATION in 2018

SUCCESS STORIES



Training of Trainers in Outcome Based Education (OBE) and Student Centred Learning (SCL) for MoHE Afghanistan 2018

Universiti Teknologi Malaysia (UTM) has received a visit from 24 delegates from the Ministry of Higher Education (MoHE) of Afghanistan on 1-16 April 2018, funded by the World Bank. They were here for a 2-week workshop on the Outcome Based Education (OBE) and Student Centered Learning (SCL) which was held at the Raja Zarith Sofiah Library, and Blended Learning Workshop at Faculty of Education, organized by the Centre for Engineering Education (CEE) UTM.

The delegates are the academic staff from universities in Afghanistan, who have been trained previously on the OBE and SCL by the Trainers who have undergone a series of training workshop on OBE and SCL and certified by CEE. Read more at: http://bit.ly/MoHE_Afghanistan

Related story:

UTM is recognized by World Bank in helping the teaching transformation of public universities in Afghanistan. This was accomplished through trainings conducted by CEE since 2016 under a five-year agreement with MOHE Afghanistan, funded by the World Bank.

Read more at: <http://bit.ly/2D3jk9l>



ICSTEM2018 in conjunction with I-PHEX2018 and I-PEX2018

The 2nd International Conference on Science, Technology, Engineering and Mathematics Education 2018, (ICSTEM2018) was held in Kuala Lumpur on 2 -3 October 2018. It was jointly organized by the Ministry of Education Malaysia and Universiti Teknologi Malaysia (UTM). The conference includes gatherings for keynotes, plenary sessions, forum, special sessions, presentations of papers, and display of posters. ICSTEM2018 was held together with the 5th International Innovative Practices in Higher Education Expo (I-PHEX2018) and Innovative Practices in Education Expo (I-PEX2018) which was held on 3 October 2018. Several interesting parallel post conference workshops was also held on 4 October 2018.

Read more at http://bit.ly/ICSTEM2018_news



Prof. Dr. Khairiyah Mohd Yusof as 2018 Recipient of IFEES Duncan Fraser Global Award for Excellence in Engineering Education

Prof Dr Khairiyah Mohd Yusof has been conferred as the 2018 Recipient of the prestigious IFEES Duncan Fraser Global Award for Excellence in Engineering Education by the International Federation of Engineering Education Society (IFEES). She is the first Asian to win the award in its 10-year history. The award ceremony was held on 16 November 2018 during the annual IFEES Duncan Fraser Awards dinner at Albuquerque, New Mexico, US.

The IFEES Duncan Fraser Global Award for Excellence in Engineering Education recognizes individuals who have made innovative and meritorious contributions with a significant impact on the advancement of engineering education. The recognition is given to Prof. Khairiyah this year for her tremendous effort to change the global landscape of engineering education, especially in the Asian region and to promote scholarly and evidence-based practices in engineering education.

Read more at <http://www.ifees.net/2018-recipient-khairiyah-mohd-yusof/>



Problem-Based Learning for Low Carbon Society (PBL-LCS) 2018

Centre for Engineering Education (CEE), University Teknologi Malaysia organised the 3rd Problem Based Learning (PBL) for Low Carbon Society (LCS) program in collaboration with Jabatan Pendidikan Negeri Johor (JPNJ) and Kyoto Environmental Activities Association (KEAA), supported by Japan International Cooperation Agency (JICA) and Majlis Bandaraya Iskandar Puteri (MBIP).

A total of 356 Form 2 students and 54 STEM teachers from 12 secondary schools in Johor involved in the program conducted in October 2018. The program started in 2016 with only 2 pilot schools and expanded to 6 schools in 2017. The program is a one-year educational program among Form 2 students, which required them to learn about LCS themselves using PBL and then to propose a solution for low carbon problems in groups. After attending series of training on 21st century learning, including Problem-based Learning, conducted by the CEE team, the teachers were guided to crafted suitable real world problems related to LCS for the students to learn and solve. The CEE team visited schools to provide clinical supervisions for the teachers. At the end of the program, the students presented their reports.

This year, the semi-final and final competitions were held at the MBIP Hall, Skudai during the Iskandar Malaysia towards Low Carbon Society 2018 Seminar. The LCS issues included waste management, energy, water and transportation. The champion won a study trip to Kyoto City funded by JICA in collaboration with KEAA and the Kyoto City Hall.

Read full story at <https://news.utm.my/2019/01/utm-continues-to-raise-awareness-of-low-carbon-society-through-problem-based-learning-among-school-community/>



Assoc. Prof. Dr Fatin Aliah Phang won Gold Medal for Anugerah Harta Intelek Negara (Copyright Category) and ESD Okayama Award

Assoc. Prof. Dr Fatin Aliah Phang has been awarded a Gold Medal for Anugerah Harta Intelek Negara (Copyright Category) by the Intellectual Properties Corporation of Malaysia (MyIPO) and World Intellectual Property Organization (WIPO) on 13 September 2018 for the product named Iskandar Malaysia Ecolife Challenge workbook. The award was given by the Minister of Domestic Trade and Customer Affairs, Datuk Seri Saifuddin Nasution bin Ismail. More than 700 submission for the award were received this year and the focus of the award in 2018 is on international coverage of the product.

Fatin also attended the ESD Okayama Award giving ceremony at Okayama City, Japan on 27 October 2018 as a recognition of the ESD best practice in Iskandar Malaysia Ecolife Challenge project. The Global Prize was awarded by the Okayama City Mayor every year for two best ESD projects from around the world. This year, 63 applications were received and two winners were selected to receive the cash prize of USD3,000 each. Fatin was invited to visit Okayama to receive the award and join a series of ESD related events for 3 days. The project is a collaborative effort between UTM, Iskandar Regional Development Authority (IRDA), Jabatan Pendidikan Negeri Johor (JPNJ) and a few sponsors such as SWM Environment Sdn Bhd, Sustainable Energy Development Authority (SEDA) Malaysia, Tanah Sutera Sdn Bhd, Medini Iskandar Malaysia Sdn Bhd, MIGHT and so on.



Engineering Service Learning 2018 (ESL2018)

CEE organized ESL 2018 from August 26 to September 6 2018 at Kampung Pendas Baru, Gelang Patah, Johor, which involved 20 students from Faculty of Engineering and technical course at UTM such as civil, electrical, mechanical, built environment and chemical engineering as well as education in TVET; 10 students Universiti Teknologi Petronas (UTP); and a lecturer from Swinburne University, Australia.

ESL2018 focused on the application of sustainable engineering in enhancing the economy of fishermen's community through project based learning approach as core implementation. Students were exposed to activities that enhance creativity and innovation, besides applying the engineering knowledge they learnt in classroom through multidisciplinary to solve local community problems.

There were multiple stages the students have to undergo, i.e. team building, knowledge enhancement, finding local issues, deriving ideas, proposal and evaluation, product design, making product, etc. At the end of the project, the designed projects were evaluated and tested before they were handed to the target community.

Related news:

<https://www.bharian.com.my/berita/wilayah/2018/09/470526/enam-keluarga-terima-inovasi-kejuruteraan-ekspres>



Intellectual Property, Commercialisation and Licencing



- CEE members conducted various training throughout Malaysia and internationally. 3 copyrighted training modules reached commercialization status, and 2 of them have been licensed to other institutions.
- Most importantly, innovative and scholarly teaching and learning techniques in these modules are widely disseminated to a global community of practices, translating into impactful implementations in schools and institutions of higher learning.





Intellectual Property, Commercialisation and Licencing (cont'd)
