

Engineering a Career in Agriculture and Food

AGRICULTURAL AND FOOD ENGINEERING TECHNICAL DIVISION

A programme to promote agricultural and food engineering was successfully conducted by the Department of Agricultural and Biological Engineering (DABE) together with the Department of Process and Food Engineering (DPFE) of Universiti Putra Malaysia (UPM) on 8 October 2011 at UPM's Faculty of Engineering. The programme, which was jointly organised by IEM, was themed "Engineering a Career in Agriculture and Food" and involved 390 students from local high schools, matriculation courses as well as current DABE and DPFE undergraduates.

The programme was officiated by Emeritus Prof. Dato' Ir. Dr Muhamad Zohadie Bardaie, Chairman of Perunding Bakti Sdn Bhd, who was the former Vice Chancellor of UPM. The opening remarks of the programme was given by the Head of DABE, Dr Khalina Abdan, who emphasized that the objectives of the programme were to increase the awareness of the importance of the agriculture and food sector to the country, to enrich the public's understanding of agricultural and food engineering, as well as to promote higher education, especially bachelor programmes in agricultural and food engineering offered by UPM's Faculty of Engineering. Other VVIPs who were present included the Dean of the Engineering Faculty of UPM, Prof. Dr Fakhru'l-Razi Ahmadun, and the Head of DPFE, Engr. Assoc. Prof. Dr Yus Aniza Yusof.

The highlight of the programme was the public lectures delivered by two distinguished personnel from the agriculture and food industry, En. Aziz@Awang Mat Ali, who is the Assistant Director of Agricultural Engineering Unit, Department of Agriculture Malaysia, and En. Abdul Aziz Isa, Sales Executive, Bank Pertanian Malaysia Berhad (Agrobank). En. Nazri talk's emphasized on the direction of the agricultural sector in the country, while En. Abdul Aziz shared the business opportunities that are available for fresh graduates in the agricultural sector.



Figure 1: Mr. Chan, Director of Maxtwo Engineering & Services Sdn Bhd, sharing his success stories after more than 10 years of involvement in the industry



by Dr Samsuzana Abd. Aziz and Ir. Assoc. Prof. Dr Azmi Yahya

A seminar on "Career Success Inspiration" from four successful DABE and DFPE alumni was the other highlight of the day. The distinguished alumni were Ir. Kumar Subramaniam, Project Manager and Consulting Engineer from SGT Konsult Sdn Bhd; Mr. Chan Kah Whye, Director of Maxtwo Engineering & Services Sdn Bhd; Mr. Tay Cheow Hwang, Production Engineer, Nestle' Manufacturing (Malaysia) Sdn Bhd; and Ir. Hj. Izhar Mahmood, Director of Plantation Operations, EPA Management Sdn Bhd. They shared valuable advice and their success stories after having been involved in the agricultural and food engineering industries for more than 10 years.



Figure 2: The "Engineering a Career in Agriculture and Food" programme was jointly organised by IEM and UPM



Figure 3: Fatin Abdul Rahman and Fathin Ayuni Azizan sharing their experiences on the mechanisation of apple picking operation using robotics and image processing, as interns at the Center for Precision and Automated Agricultural Systems, Prosser, Washington



Figure 4: Posters and booths showcasing outstanding and successful researches



Figure 5: Student projects in agricultural and food engineering

The final event of the day was the presentations of the Students Mobility Programme by several groups of DABE and DPFE undergraduate students who shared their learning experiences at the international universities they visited during the last semester break. Two of them went to the University of Florida, the United States, for an internship programme at Citrus Research and Education Centre for 10 weeks. Ngu Wei Pin and Lee Jia Ni, who are final year students of the Bachelor of Agricultural and Biosystems Engineering, shared their hands-on experience on research activities at the centre on the mechanisation of the citrus industries in Florida. They also talked on some interesting educational and cultural visits they made during the internship.

Another two students from the same course, Fatin Abdul Rahman and Fathin Ayuni Azizan, went to Washington State University, US, and worked as interns at the Center for Precision and Automated Agricultural Systems in Prosser, Washington. Apart from the educational and cultural learning experiences, they shared their study on the mechanisation of an apple picking operation using robotics and image processing. On the other hand, three Bachelor of Process and Food Engineering undergraduate students went to Universitat Zu Berlin, Germany, for a summer course on "Urban Agriculture". Tan Mei Mey, Wong Chiew Chan and Gan Kok Yong, jointly presented a very interesting talk on the current practice of urban agriculture in big cities such as Humboldt in Germany.

The final presentation was from Nor Amira Farhana Harun, Nuratika Ali, Nur Salihah Buang, Nurul Buhirah Abd Rahman and Liyana Annisa Zaini, who were undergraduate students of Process and Food Engineering. These students spent their semester break at Fatih University, Turkey, for a period of two weeks. They presented an interesting learning experience on the educational and cultural heritage of Turkey since the early Ottoman Empire.

Showcases of outstanding and successful research and findings in agricultural and food engineering from the faculty members of both departments were exhibited in parallel during the full day event. There were booths featuring research on robotics and mechanisation such as Conceptual Agricultural Robot, Pineapple Multi-peeler and Automated Blender-Cooker for Paste Making, and also posters showcasing other fields of research such as GIS and remote sensing, bio-information systems, soil, water and environmental engineering as well as food process and production engineering. The exhibitions aimed not only to be a platform for researchers and faculty members to highlight their work and latest findings to the public, but also to attract students and introduce innovation and engineering design in their daily lives.

The director of the programme, Dr Samsuzana Abd Aziz, said the event had successfully enhanced the understanding of agricultural and food engineering not only to college students, but also to high school students, teachers, parents and the general public. ■

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