GC 2012-5655: ESTABLISHING INNOVATIVE STRATEGIES THROUGH THE VIRTUOUS CYCLE OF RESEARCH IN ENGINEERING EDUCA-TION

Dr. Khairiyah Mohd Yusof, Regional Centre for Engineering Education - Malaysia (RCEE)

Dr. Khairiyah Mohd-Yusof is an Associate Professor in the Department of Chemical Engineering, University Teknologi Malaysia (UTM). She is the Director of the UTM Regional Centre for Engineering Education (RCEE), which promotes meaningful research and scholarly practice in engineering education, and manages the PhD in Engineering Education program. Since 2011, she is the Secretary of the Society for Engineering Education Malaysia (SEEM). Prior to becoming the Director of RCEE, Dr. Khairiyah was the Deputy Director at the Centre for Teaching & Learning (2008 2011), and the Head of the Chemical Engineering Department (2006-2008). Her engineering education research focuses on innovative teaching and learning practices, especially Cooperative Learning (CL) and Problem-based Learning (PBL), first year experience, and sustainable development in engineering education. A practitioner of Cooperative Problem-based Learning (CPBL), she regularly conducts training for academic staff from institutions of higher learning, especially in student-centered teaching and learning methods.

Ms. Fatimah Puteh, Regional Centre for Engineering Education - Malaysia (RCEE)

Fatimah Puteh is a Senior Lecturer at Universiti Teknologi Malaysia. She is one of the key players behind the development of the Online Resources for Learning in English (MyLinE) portal in 2006 which was later adopted by the Ministry of Higher Education of Malaysia in 2008 to be used and accessed by all registered students in the 20 public universities in Malaysia. Since its launch in 2008, she has been entrusted with the responsibility of managing the language learning portal which includes developing, maintaining and hosting the site. She teaches Computer Assisted Language Learning and Classroom Observation on the university's TESL programme and Effective Oral Communication skills in the language proficiency programme. Her area of interest includes CALL, CMC, self-directed language learning and technology in education.

Syed Helmi Syed Hassan, Universiti Teknologi Malaysia

Faculty of Mechanical Engineering, Unverisiti Teknologi Malaysia, 81310 Johor Bahru, Malaysia He will be participating in one of the sections in the plenary entitled: Detail example of innovative strategy in virtuous cycle of research - Cooperative Problem Based Learning

Dr. Zainura Zainoon Noor, Universiti Teknologi Malaysia

Dr Zainura Zainon Noor is a senior lecturer at the Department of Chemical Engineering, Universiti Teknologi Malaysia (UTM). She has experiences in green design and processes, life cycle assessment, cost benefit analysis, carbon footprint, greenhouse gas inventory and projection as well as sustainable development policy implementation, and is currently leading the Green Technology Research Group at the Institute of Water and Environmental Management. Since 2010, she has been coordinating UTM_DTU International Summer Course on Sustainable Consumption and Production, a high-impact collaborative program between UTM and Denmark Technical University.

Dr. Ariffin Abu Hassan

Associate Professor Dr. Mohd. Ariffin Abu Hassan Faculty of Chemical Engineering, Universiti Teknologi Malaysia, 81310 Johor Bahru, Malaysia Title of his talk: Developing Quality Engineering Programs

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RCEE Plenary Session

Plenary: Establishing innovative strategies through the virtuous cycle of research in engineering education

1. Importance of conducting meaningful research in engineering education - KMY (15 minutes)

- 2. Sample research from UTM (SAH, ZZN, FP, MAAH, KMY) 5 minutes each 20 minutes
- 3. Activity: Identifying possible questions that can be researched FP (15 minutes)

3. Detail example of innovative strategy in virtuous cycle of research - Cooperative Problem Based Learning (effectiveness, training) - KMY & SAH (20 minutes)

KMY - Khairiyah Mohd-Yusof

FP - Fatimah Puteh

SAH - Syed Ahmad Helmi

ZZN - Zainura Zainon Noor

MAAH - Mohd Ariffin Abu Hassan

Parallel Session

1. Student Development through the UTM-DTU International Summer Course on Sustainable Consumption and Production - Dr. Zainura Zainon Noor

2. Developing Quality Engineering Programs - Assoc. Prof. Dr. Mohd. Ariffin Abu Hassan

3. Collaborative Efforts in Developing the PhD in Engineering Education Program in UTM - Assoc. Prof. Dr. Khairiyah Mohd-Yusof & Dr. Syed Ahmad Helmi

4. MyLine: Providing resources for learning in English On-line - Ms. Fatimah Puteh

5. Developing capabilities for training engineering faculty members in effective teaching and learning methods - Assoc. Prof. Dr. Khairiyah Mohd-Yusof & Dr. Syed Ahmad Helmi