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## **GC 2012-5651: DEVELOPING CAPABILITIES FOR TRAINING ENGINEERING FACULTY MEMBERS IN EFFECTIVE TEACHING AND LEARNING METHODS**

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# Developing Capabilities for Training Engineering Faculty Members in Effective Teaching and Learning Methods: A

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## Abstract

This paper describes strategies taken to develop the capacity to train faculty members in Universiti Teknologi Malaysia (UTM) in effective teaching and learning methods. The largest producer of engineering graduates in Malaysia, UTM is strongly committed in enhancing the quality of Engineering Education, and thus the quality of teaching and learning in the university.

Among the earliest strategy, UTM established the Centre for Teaching and Learning in 2003 to train academic staff. Under the CTL, task forces were formed to develop the core group that can provide training in different areas of teaching and learning. To encourage a scholarly approach to teaching and learning, UTM held five conferences in engineering education every other year since 2004, inviting numerous international experts to give key note addresses and provide training for academic staff. Then, having increased capability, UTM established the Regional Centre for Engineering Education (RCEE) to establish a niche in conducting rigorous research in engineering education and to disseminate information to improve engineering education. In addition to managing the PhD in Engineering Education program, RCEE actively conducts training and research in Engineering Education. During each stage of development, close relationships were established with engineering education experts from different parts out the world.

In a positive turn of events, the Malaysian Ministry of Higher Education established the Higher Education Leadership Academy (AKEPT) in 2008. AKEPT's Centre for Learning and Teaching aims to transform teaching and learning in higher education institutions with innovative, research- based knowledge and international best practices. World renowned experts are invited to provide workshops for training of trainers (TOT) from institutions of higher learning in Malaysia. Since most trainers from UTM consists of those from Science, Technology, Engineering and Mathematics (STEM) related areas, the support provided through AKEPT was valuable because training sessions with the experts strengthened and verified their understanding, increasing the confidence of the trainers and opened up a wider avenue for with trainers from Malaysian institute of higher learning, creating collaborative efforts to provide quality training to academic staff.