

## RESEARCH PAPER COMPETITION

BY: DR. JOLIUS GIMBUN

30th March 2013, Petaling Jaya – Ms Lee Hua Chyn, a master student joint-supervised by Drs. Cheng Chin Kui and Jolius Gimbun from the Faculty of Chemical and Natural Resources Engineering (FKKSA) has won herself a travel grant totaling RM3000 to attend the prestigious 9th World Congress of Chemical Engineering to be held from 18th to 23rd August 2013 at Seoul, Korea. Lee was adjudged the winner for Research Paper Competition organized by Chemical Engineering Technical Division (CETD), The Institution of Engineers Malaysia (IEM).

In total, three UMP research papers have been shortlisted for the oral presentation that was held in Bangunan Ingenieur IEM. The shortlisted research papers were evaluated from the aspects of writing (technical paper), novelty and also innovation. The finalists comprised of "Bio-syngas production from glycerol dry reforming over cement clinker-supported nickel catalyst" by Lee Hua Chyn, "Glycerol dry reforming over La-Ni/Al<sub>2</sub>O<sub>3</sub> catalyst" by Siew Kah Weng and also "Microwave extraction of phenolic acid and flavonoids from Orthosiphon Stamineus" by Pang Sook Fun. Following the presentation, Lee Hua Chyn from UMP won the first prize while the second prize went to Ng Tong Lip, a PhD student from University of Nottingham, Campus Malaysia with the paper entitled "A disjunction modelling approach for synthesis

and optimisation of industrial symbiosis in palm oil industry".

The paper presented by Lee Hua Chyn is regarding the application of cement clinker-supported nickel catalyst for glycerol dry reforming to produce bio-syngas (H<sub>2</sub> and CO). From her work, Lee has discovered that carbon deposition during glycerol reforming was minimized owing to the natural presence of calcium oxide (CaO) in the cement clinker. In addition, syngas suitable for Fischer-Tropsch synthesis can be obtained. Her project is funded by the MTUN-CoE grant (RDU121216) and Sciencefund (RDU130501) respectively, in collaboration with Assoc. Prof. Dr. Suzana Yusup from Mission-Oriented Research, Green Technology at Universiti Teknologi Petronas and Dr. Loh Soh Kheang from Malaysian Palm Oil Board (MPOB).



Lee Hua Chyn (left) received her award from Prof. Ir. Dr. Dominic C. Y. Foo (right), chairman of CETD, IEM



Finalists for the competition

