

Designing Ionic Liquid Mixture as Carbon Capture Solvent Using Systematic Visual Approach

CHEMICAL ENGINEERING TECHNICAL DIVISION



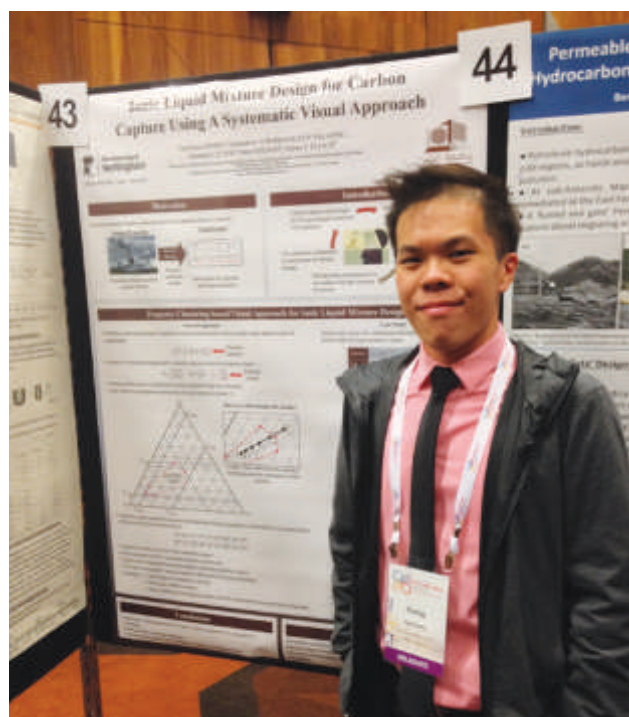
reported by
Mr. Chong Fah Keen

Mr. Chong Fah Keen is a PhD student in the Department of Chemical and Environmental Engineering at University of Nottingham Malaysia Campus. His research focuses on developing computer-aided tools to design ionic liquids, specifically for carbon dioxide absorption purpose. He holds a First Class degree in MEng (Hons) in Chemical Engineering from the University of Nottingham.

On 20 June 2015, Mr. Chong Fah Keen was announced the winner of the 2015 Research Paper Competition. The Ph.D student from The University of Nottingham Malaysia Campus, had worked with Associate Professor Dr Nishanth Chemmangattuvalappil, Professor Dominic C.Y. Foo and Dr Fadwa Eljack (co-supervisor from Qatar University, Qatar).

The APCChE 2015 Congress was hosted by The Royal Australian Chemical Institute (RACI), Institution of Chemical Engineers (IChemE), Engineers Australia, and Institute of Professional Engineers New Zealand (IPENZ), in collaboration with Chemeca 2015 and International Conference on Coal Science & Technology (ICCS&T). This conference was held at the Melbourne Convention and Exhibition Centre (MCEC) in Melbourne, Australia, from 27 September to 1 October, 2015, with the theme "Chemical Engineering in the Asia-Pacific Century – Growth and Innovation".

The said paper introduced a visual approach to shortlist suitable ionic liquid mixtures as carbon capture solvent systematically, prior to exhaustive experiment works. After Mr. Chong's oral presentation during the conference, the session moderator enquired about the application and accuracy of the presented approach in designing actual ionic liquid mixtures. Mr. Chong replied that the approach was developed and currently being used by his collaborators from Qatar University to predict the suitable mixtures to capture carbon dioxide, and they provided data in return to improve the accuracy of the approach continuously.



Chong Fah Keen presenting his poster on "Ionic Liquid Mixture Design for Carbon Capture using a Systematic Visual Approach"

After attending the conference, he said: "I would like to express my gratitude to CTED, IEM, for giving me this golden opportunity to present my work." He said he was happy to be able to promote his research works and to exchange ideas with researchers from different backgrounds.

"It was an excellent experience for me to meet different audiences and to deliver my ideas to them. Through the feedbacks from the poster presentation, I realised how others could understand my work from different perspectives. This will be very helpful to me in outlining future presentations, either verbally or in writing," he added. ■