Great chemistry, great results

IT IS often said that Chemical Engineering – a branch of engineering fraught with technicalities – is not meant for the faint-hearted.

Engineer Jully Tan can attest to this. Having worked in China as a quality engineer for a multi-national corporation, Tan successfully navigated a number of tough challenges before deciding to return to Malaysia.

Armed with an impressive repertoire of industrial knowledge and skills, she now heads UCSI University’s Chemical and Petroleum Engineering Department, an important branch of the university’s Faculty of Engineering, Technology and Built Environment.

Tan has sought to make significant changes to the Chemical Engineering programme since day one and the faculty is reaping the fruits of her labour in many ways.

The establishment of new industry advisory panels and the engagement of external examiners from other universities to assess the course structure and syllabus, are proof that the course has received a new face lift since its launch.

With Tan’s constant efforts to intensify real-world learning in the curriculum, plans are afoot to create a new programme, namely the Global Outreach Programme.

“Through this programme, students – in teams of three to four – will be required to craft proposals (related to their coursework) for site visits outside Klang Valley,” said Tan.

“Students will be required to liaise directly with industry clients, in terms of plans and activities for the proposed site visit.

“Such efforts ensure that our students will be committed to solid, hands-on grounding and will be infused with the essential skills and confidence to build relationships with industry practitioners, even prior to graduation.”

The programme places heavy emphasis on practical learning, boldly underscoring staff-student collaborations, an approach which Tan has replicated from her university days.

“Back then, my lecturer was engaged in a project with a local pharmaceutical company to invent a prediction software to forecast the company’s return on investment and outcomes; I was privileged to have been able to join the team,” she enthused.

Tan believes that collaborations between faculty lecturers and students will enable both parties to tackle real-life industry concerns and keep themselves updated with the latest developments in the field.

This approach has already been implemented (in the programme), she said, and the faculty has engaged key industry partners such as the Malaysian Nuclear Agency to work with its students.

“Three of our students have recently completed their final year project – analysing the effect of radiation on polymers to be applied to Malaysian nuclear, to be exact, with the Malaysian Nuclear Agency,” said Tan, who was pleased to note that the students had been enthusiastic about the project.

One of the Chemical Engineering students, Tan Su Myn, described her one-year project experience with the agency as “a lot of hands-on exposure”.

“I was based in their research department, which allowed me to carry out frequent tests and experiments,” she said.

Tan shared that these students had displayed exemplary dedication to their project and that this was a trait reflected by all of her students.

Take, for example, Chemical Engineering students Ng Chieh Shuang and Leong Yik Tin who represented Malaysia at the International Petroleum Technology Conference (IPTC) in Bangkok, Thailand last year.

Themed Engineering Education Week, the five-day event aimed to develop in-depth knowledge in the area of oil and gas among the participants who hailed from Doha, Qatar and the Asia Pacific region.

According to Ng, the conference was “a fun and eye-opening experience” that allowed her to “apply technical knowledge in real-life situations”.

“The conference was an excellent way for me to hone my leadership skills, public speaking and intercultural communication skills,” said Ng.

“I learned to be more outspoken and proactive; in a team comprising individuals from different nationalities and cultures, you really
need to speak up and share your thoughts with your team.”

Leong was just as elated as her teammate and said: “It was a great experience (for me) as it was an international conference and there were many opportunities to socialise with people from all walks of life.”

Tan, who is currently pursuing her PhD, said, “Such projects have enabled my students to grow into maturity at full speed and their growth has been most impressive.

“They were very result-oriented at the start of the programme but have since developed into young professionals who recognise the importance of attaining soft skills, namely, teamwork, presentation skills and time management, among others, in addition to excellent results.

“I am pleased that my industry expertise has benefitted the faculty, and hope to see my students develop into leaders capable of contributing positive efforts to the industry.”

Visit the Info Days from Jan 19-20 (9am-5pm) for course counselling. You can also contact the Enrolment Call Centre at 03-9101 8882 or e-mail www.ucsiuniversity.edu.my/onlineenquiry. For more information, go to www.ucsiuniversity.edu.my/.

Engineer Jully Tan (sitting) conducting a demonstration for her students as part of her efforts to intensify real-world learning in the Chemical Engineering programme.