

Prepared for industry

SIT offers sustainable engineering degree programmes focusing on a workforce of innovation-driven graduates

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BESIDES offering industry-focused degree programmes with strong industry links, the Singapore Institute of Technology (SIT) is differentiating itself by focusing on programmes that will promote sustainability and liveability in a modern city.

SIT aims to propel its engineering graduates towards that vision and ensure engineering excellence is maintained in the industry.

“SIT has carved a niche education pathway by offering industry-focused degree programmes with strong industry links.

Says Er Professor Chiew Sing Ping, programme director of the proposed Civil Engineering Programme at SIT: “Through close consultation with key industry players, we have identified industry sectors with strong demand for graduates.”

He sits on the Professional Engineers Board and is the only academic in it. His passion has always been engineering training and education.

In just six years, SIT’s enrolment has increased to over 4,000 students in 36 full-time degree programmes, offered in partnership with 10 reputable overseas universities as well as its own degree programmes.

Learn, unlearn, relearn

“In a country that relies mainly on its manpower as the only natural resource, it is of paramount importance that it produces people who can learn, unlearn and relearn to meet the changing trends in this increasingly globalised world,” says Er Prof Chiew.

In his view, to sustain economic growth in Singapore requires innovation and good infrastructure supported with good air, land and sea transport systems and efficient energy-saving buildings, which are



With its practice-oriented programmes, Er Prof Chiew (left) and Prof Yu believe the industry will be well served by SIT’s new graduates. PHOTO: CHONG JUN LIANG

all sustainable.

With that in mind, SIT has launched new sustainable engineering degree programmes. The Master of Engineering Technology and Bachelor of Engineering with Honours in Sustainable Infrastructure Engineering (Land) degrees were launched in the 2014/15 academic year.

This year, SIT introduced the Master of Engineering Technology and Bachelor of Engineering with Honours in Sustainable Infrastructure Engineering (Building Services).

Professor Simon Yu, programme director of Sustainable Infrastructure Engineering (Land & Building Services) Programmes at SIT, says: “These programmes are the first of their kind in Singapore. The role of engineers to support Singapore’s economic growth and development needs in terms of first-world infrastructure is critical as Singapore positions itself as a global transportation hub.”

As part of their degrees, SIT students will receive Level II/III certification in non-destructive testing. Those who fulfil the qualifying academic criteria can go for an additional year of the programme to graduate with a Master of Engineering Technology degree.

Prof Yu says the Sustainable Infrastructure Engineering (SIE) programme aims to bridge the gap between theory and practice in engineering education.

A key outcome of the programme is to produce graduates who are both practice-oriented and industry-ready.

Practice-oriented

The SIE curriculum puts strong emphasis on sustainability in infrastructure like transport and efficient energy systems.

It is envisaged that the Integrated Work Study Programme (IWSP) will prepare the students to be industry-ready coupled with the academic rigour captured in the curriculum.

Students taking the SIE programmes have two design projects and one capstone project to complete before graduation. The two design projects are separated by the 12-month IWSP.

“Engineers from relevant industries are invited to talk to our students, describing to them the latest challenges in industries. The interactions with engineers enable students to formulate industries-related projects,” says Prof Yu.

The second design project comes after the 12-month IWSP, which features real-life working experience. Students will then have a better sense of what is actually required by industry and propose more realistic design projects.

Finally, the capstone project will focus on a particular engineering problem, where individual students will be able to exercise their innovative thinking and problem-solving skills.