‘Go beyond the traditional to teach engineering’

By MELODY ZACCHEUS

THE way engineering is taught in schools has to go beyond the traditional approach because a new breed of engineers with a wider range of skills is needed to tackle fresh challenges.

These skills include creativity, an understanding of trends in other fields and the ability to work with people from other specialisations, Education Minister Heng Swee Keat said yesterday.

“Increasingly, solving real life challenges calls for an interdisciplinary approach. More innovation happens at the intersection of disciplines,” he said at the Institution of Engineers Singapore’s (IES) 47th annual dinner.

Some of these challenges include climate change, the increasing demand for clean energy and meeting the needs of an ageing population, he added.

Hence, schools can no longer focus just on “producing students who are proficient in technical knowledge”. They have to encourage students to think creatively and entrepreneurially, he said.

And some schools are already doing that, he noted, citing examples such as Nanyang Technological University’s Renaissance Engineering Programme, which covers subjects such as engineering, business and the liberal arts.

At the lower level, all secondary schools will have applied learning programmes by 2017 to help students “connect knowledge across disciplines, stretch their imagination and apply their lessons”, said Mr Heng.

At the dinner, the IES – which represents the interests of engineers here – gave out awards to 13 top engineering students from NTU and the National University of Singapore, among others.

The top award – the IES and Institute of Electrical and Electronics Engineers Joint Medal of Excellence – went to Professor Chong Tow Chong, provost of the Singapore University of Technology and Design (SUTD).

The IES also launched four new chapters. They are in the fields of chemical and process engineering, environmental engineering, marine and offshore engineering and systems engineering.

The IES also signed agreements with SUTD and the Singapore Institute of Technology to set up student chapters.

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