

Training the next generation of engineers to embrace sustainability

It is also important that practising professional engineers continue upskilling to be able to contribute to green projects, says Singapore Institute of Technology don



The next generation of engineers will not only require an in-depth knowledge of their own field, but will also acquire knowledge on sustainability practices. PHOTO: MINISTRY OF MANPOWER

Last September, Singapore announced its target to reach net zero carbon emissions by the year 2050, cementing sustainability as one of the key focuses of its nation building plans. With this comes a new demand for the next generation of engineers – tech-savvy, enterprising individuals who can combine traditional knowledge with new sustainability practices.

For schools like the Singapore Institute of Technology (SIT), this new direction means changing the way engineers here are being trained.

“Helping our next generation of engineers understand why it is important to embrace sustainability meaningfully

is the first step,” says Associate Professor Kenneth Low, 50, deputy cluster director of engineering at SIT.

“The way to train them is to equip them with deep technical knowledge and practical tools to create solutions at both the local and global contexts, and involve them in implementing and fine-tuning the solutions via proof of concept or pilot projects, linking their minds with their hands.”

Besides changing the way new engineers are being trained, Prof Low says that it is also important for professional engineers to continue upskilling, so that they can contribute to sustainability-linked projects.

This sentiment is echoed by the Ministry of Manpower (MOM). “The next generation of engineers will not only require

an in-depth knowledge of their own field, but must also acquire the basic knowledge of other engineering disciplines. This is so that they can value-add to the whole life cycle assessment process, from design to manufacture, use, disposal and recycling,” says MOM through a spokesperson.

“MOM will continue to support the competency and capability building of professional engineers through our involvement in standards development as well as continuing professional development, in partnership with industry associations and institutes of higher learning.”