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Engineers hailed for contributions in developing urban spaces here

Land reclamation for places like Tuas Port, design of Robertson Bridge among projects

Nadine Chua

Two engineers were recognised yesterday for their contributions in developing Singapore's urban spaces and their key roles in coastal and infrastructure projects.

One of them, Mr James Lam, was given Nanyang Technological University's CEE Outstanding Alumni Award for his efforts in land reclamation, including his contributions to reclaiming areas in Pasir Panjang, Tuas Port and Jurong Island.

The managing director of coastal engineering at Surbana Jurong said: "Engineering has got more challenging over the years. Because as we reclaim more areas, we must be aware of the future impact this has. We have to consider the threat of climate change and weigh in sustainability factors."

Surbana is a global urban, infrastructure and managed services consulting firm based here.

Noting that the needs of end users should always be factored into engineering projects, Mr Lam said: "For example, as we build Tuas Port, we have to consider very stringent settlement requirements. At the same time, we are reusing massive amounts of dredged material. So we have to ensure the engineering aspects take care of this, while making sure that future requirements of the port are met."

Tuas Port will be completed in the 2040s over four phases.

Singapore has also divided its coastlines into different segments and is looking into how solutions can be tailored for each segment. Coastal protection measures for the various coastlines will be developed in phases progressively.

The other awardee was Mr Thanabal Kaliannan, group director (building resilience) at the Building and Construction Authority. He was involved in the design of a wide range of infrastructure, including Robertson Bridge and Jiak Kim Bridge across the Singapore River.

He said: "Science and engineering play a very crucial and pivotal role in urban space development.

"(With Singapore) being a small island, optimising our limited land by making use of deep underground spaces, taller buildings and even floating urban spaces in the future would not be possible without pioneering efforts in the fields of science and engineering."

The pair were presented with their awards at the inaugural Professor Chen Charng Ning Distinguished Lecture at Nanyang Technological University yesterday.

Prof Chen, who died in 2019 at age 80, was a former deputy president of the university and founding dean of its School of Civil and Environmental Engineering (CEE). The lecture was held in recognition of his contributions to higher education and the engineering professions and industries.

Senior Minister and Coordinating Minister for National Security Teo Chee Hean, keynote speaker at the lecture, said the combination of many disciplines, previously considered quite separate, has led to new breakthroughs.

"Biomedical and bioengineering (are) behind some of the most modern and ground-breaking healthcare techniques and devices," he said.

Noting that the combination of disciplines and new innovations proved useful during the Covid-19 pandemic, he said: "The creation of mRNA vaccines within such a compressed timeframe was possible only because of investments in research and development, and the training of experts in genetic and biomedical engineering over many preceding years."

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Mr James Lam (far left) and Mr Thanabal Kaliannan were presented with the CEE Outstanding Alumni Award at the inaugural Professor Chen Charng Ning distinguished lecture at Nanyang Technological University yesterday. ST PHOTO: DIOS VINCOY JR

FIELD HAS BECOME MORE CHALLENGING

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SCIENCE AND ENGINEERING PLAY VITAL ROLE

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