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Two engineers lauded for contributions to Singapore's urban spaces



Mr James Lam (left) and Mr Thanabal Kaliannan were presented the awards during the inaugural Professor Chen Charng Ning distinguished lecture at NTU. ST PHOTO: DIOS VINCOY JR



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SINGAPORE - Two engineers were recognised for their contributions in developing Singapore's urban spaces and their key roles in coastal and infrastructure projects on Saturday (Aug 20).

One of them, Mr James Lam, was given the School of Civil and Environmental Engineering (CEE) Outstanding Alumni Award for his efforts on reclamation, including his contributions to reclaiming areas in Pasir Panjang, Tuas Port and Jurong Island.

The managing director of coastal engineering at Singapore-based global urban, infrastructure and managed services consulting firm Surbana Jurong told The Straits Times: "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."

Noting that the needs of end users should always be factored into engineering projects, Mr Lam added: "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.



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

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

"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 the awards during the inaugural Professor Chen Charng Ning distinguished lecture at Nanyang Technological University (NTU) on Saturday.

Prof Chen, who died in 2019, was NTU's former deputy president and founding dean of the school of CEE. The lecture was held in recognition of his contributions to higher education, engineering professions and industries.

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

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

Mr Teo noted that the combination of disciplines and new innovations proved useful during the Covid-19 pandemic.

"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," he said.

Emphasising the importance of understanding science and engineering to deal with problems in an objective way, Mr Teo said: "If (not)... the solutions that we propose and want to adopt will not be practical, not be affordable, not be achievable and in the end, will fail us in our own cities and countries and also will fail us on a mass scale as humankind."

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