

HDB, SUTD tie up to create ‘new urban kampung’

One goal is to fine-tune community area designs to spur interaction

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In some Housing Board blocks, common spaces such as void decks are fitted with motion sensors that switch lights on and off when residents pass by.

Soon, they could have another purpose: letting HDB planners know which spaces are underutilised.

Armed with such data, the agency can fine-tune its designs for community areas to encourage more social interaction among neighbours.

To that end, it has partnered the Singapore University of Technology and Design (SUTD) to study how to create the “new urban kampung” – one of two agreements it signed with research institutions yesterday.

The \$6 million project, spanning three years, combines data analytics and behavioural studies to predict how demographics in HDB towns are likely to evolve, and forecast residents’ responses to initiatives in their living environment.

Speaking at the opening of the International Housing Forum yesterday, where he signed the agreements, National Development Minister Lawrence Wong said one of HDB’s goals is to “have better flat designs that bring people together and strengthen the kampung spirit in our high-rise HDB apartments”.

The HDB said the project will combine data from traditional cen-

sus and surveys, as well as from sensor networks, and feedback from the grassroots and residents.

One possible outcome, it added, is that facilities may evolve to meet the changing needs of residents. For example, void decks could be equipped with Wi-Fi workspaces for residents to organise workshops or classes.

SUTD architecture professor Chong Keng Hua offered another goal: “The vibrancy of an online community often does not translate into offline activities – we want to see if and how these different groups of people, often divided into the young and old, can participate more actively in their community.”

There is also a \$4.7 million collaboration with Nanyang Technological University (NTU) to develop a

\$4.7m

How much the collaboration with Nanyang Technological University to develop a Smart Integrated Construction System over the next three years is worth.

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If successful, this would be the first time that various automated processes will be available on the same database, which could boost productivity in construction – a sector heavily reliant on foreign manpower.

Central to the system is a digital database where those in the construction supply chain can log progress updates on a project from various locations in real time.

It will also be integrated with smart tracking systems to manage inventory, such as when materials are transported from various suppliers to a construction site.

Smart sensors with geo-tagging capabilities will be attached to building components to help contractors manage the flow of construction materials to a worksite, and correct lapses such as wrong deliveries.

The plan is to also develop an automated crane system that can calculate the quickest and safest hoisting path for construction units, especially as the HDB adopts more complex pre-fabricated methods.

Said NTU engineering professor Tan Kang Hai: “Together, this will reduce reliance on low-skilled foreign workers and transform jobs in the built environment sector into something more attractive to professionals.”

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