NTU unveils new sports hall built using sustainable technologies

Nanyang Technological University, Singapore (NTU Singapore) unveiled its new sports hall named The Wave on April 23, 2017.

It is the first large-scale building in Southeast Asia built using an innovative timber construction technology known as Mass Engineered Timber, NTU said in a press statement.

This technology provides five times better heat insulation than concrete. It is also able to support a continuous 72-metre wave-like roof without the need for internal columns. This means a cavernous three-storey space with no internal pillars and can host three full-sized basketball courts or 13 badminton courts.

"Sustainability is a core value of this university, and we walk the green talk, from education and research, to the building technologies on the NTU campus," said NTU President Professor Bertil Andersson.

The Wave was officially opened by Lawrence Wong, Minister for National Development & Second Minister for Finance. "The Wave marks a new milestone in Singapore’s push to be more productive in construction," said Wong. "We are very glad that NTU is supporting this effort. Their focus on environmental sustainability and openness to new building materials and methods show what we can achieve together. This gives us confidence that we can continue to build a better and more sustainable Singapore in the years to come."

The Wave is NTU’s latest architectural icon built using green construction technology. NTU’s student residences at North Hill and the upcoming ones at Nanyang Crescent are the first public high-rise buildings in Singapore to be built using Prefabricated Pre-finished Volumetric Construction (PPVC), a ground-breaking eco-friendly technology.

This "Logos-style" construction method can save about 25 to 40 per cent in manpower, and 15 to 20 per cent in construction time. It also reduces noise and dust pollution onsite as more activities are done off-site.

Another example is NTU’s eye-catching learning hub named The Hive, which won the BCA Green Mark Platinum Award in 2013. The Hive has a unique ventilation system that is more sustainable than conventional air conditioning and no fans are needed for air distribution. The various openings between the pods also allow for natural ventilation at the atrium, corridors, staircases, and lift lobbies.

NTU holds the national record of 55 BCA Green Mark Platinum awards. The university is also the first recipient of the BCA Green Mark PlatinumSTAR Champion award – the highest accolade in Singapore for outstanding commitment to sustainable design.

A lush green campus, NTU has been named one of the world’s Top 15 Most Beautiful Campuses by Business Insider, Travel and Leisure magazine and Buzzfeed.