Volvo's first driverless buses to be tested in NTU centre in Singapore

Nanyang Technological University (NTU) President Professor Subra Suresh inserting the NTU flag to mark the partnership with Volvo and SMRT to develop and test two electric and autonomous 40-seater buses in Singapore. (PHOTO: NTU)

Come 2019, Nanyang Technological University (NTU) and Volvo Buses will begin testing the Swedish company’s driverless electric passenger buses at the school’s autonomous vehicle test circuit in Singapore.

In an agreement signed at the university on Thursday (11 January), Volvo will deploy two 12-metre, 40-seater electric buses equipped with autonomous driving technologies, including laser and navigation systems.

The collaboration will be Volvo’s first autonomous application in public transportation, and NTU will play “a lead role” in developing algorithms and software tailored for bus applications, Volvo Buses president Hakan Agnevall said in a press briefing.
The Volvo 7900 electric buses, which are already in service in some parts of the world, cost twice as much as their diesel counterparts, said Agnevall.

The test buses will be put through their paces at NTU’s Centre of Excellence for Testing and Research of Autonomous vehicles (CETRAN), a circuit modelled after road conditions in Singapore.

CETRAN, which officially opened in November last year, also features a rain simulator and flood zone to test autonomous vehicles’ navigation abilities under tropical weather conditions.

Around 50 NTU students from different disciplines, along with Volvo, will take part in the testing, which comes under a four-year research programme.

Describing the partnership with Volvo as part of the school’s Smart Campus initiative, NTU President Professor Subra Suresh, said he hoped the initiative would “contribute significantly to Singapore’s ambition of adopting autonomous vehicle technologies and enhancing public transportation”.

Meanwhile, Singapore transport operator SMRT will also play a role in determining the roadworthiness of autonomous vehicles.

One of the buses will undergo tests to autonomously navigate into vehicle washing bays and park safely at charging areas at a local bus depot managed by SMRT.

Volvo and NTU will also be partnering Swiss-Swedish company ABB to develop fast-charging stations for the electric buses.