SINGAPORE: Driverless buses meant for public transport will be tested from early 2019 at Nanyang Technological University’s (NTU) test circuit in Jurong, under a collaboration with Volvo.

Both parties signed an agreement on Thursday (Jan 11) to test two 40-seater autonomous electric buses at NTU’s Centre of Excellence for Testing and Research of Autonomous Vehicles. The test circuit replicates road conditions in Singapore, with common traffic schemes, road infrastructure and traffic rules.

It also features a rain simulator and flood zone to test the vehicles’ navigation abilities under tropical weather conditions.

The trial will be supported by transport operator SMRT, which will be involved in determining the roadworthiness of the driverless electric buses.

One of the buses will undergo tests at a bus depot managed by SMRT, to assess the vehicle’s ability to autonomously navigate vehicle washing bays and park safely at charging areas.

If successful, SMRT said the buses will serve commuters in the coming years, although it did not give a timeline.

The 12m-long buses will be equipped with self-driving technologies such as laser systems for charting and detecting obstacles, as well as an integrated navigation system that includes automated steering, gear changing and speed throttling capabilities.

According to Volvo, the buses require 50 per cent less energy than a diesel bus of the same size. Although it will be more expensive to purchase the autonomous electric bus, operational costs will be lower.

Said SMRT CEO Desmond Kuok: "We will leverage our extensive experience operating and maintaining buses to support the eventual deployment of autonomous vehicles safely on our roads in the future."

"Autonomous buses are expected to be fielded in larger scale under the future land transport master plan. Such vehicles will allow optimal deployment of manpower, enabling buses to be deployed on the roads for safe, timely and efficient services, day and night, in all weather and traffic conditions.”

NTU and Volvo will also be working with technology company ABB to develop charging solutions for the electric vehicle.

Source: CNA/gs