Driverless vehicle rides in three new towns from 2022

Punggol, Jurong Innovation District and Tengah to have robot buses and shuttles

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Residents and workers in three new towns will be the first in Singapore to ride driverless vehicles as part of their daily commute from 2022.

The Government has identified Punggol, Tengah and the Jurong Innovation District (JID) as areas where residents and workers can turn to pilot self-driving buses and shuttles for their first- and last-mile commutes.

The plans, unveiled by Transport Minister Khaw Boon Wan yesterday, are the latest in Singapore’s drive towards adopting autonomous vehicle (AV) technology, alongside other applications announced earlier, such as driverless campus buses, truck platooning systems and unmanned road sweepers.

At these three new towns, the plan is for robot buses to run scheduled services during off-peak periods to complement human-driven ones, while commuters can summon driverless shuttles on demand.

“We expect that the autonomous vehicles will greatly enhance the accessibility and connectivity of our public transport system, particularly for the elderly, families with young children and the less mobile,” Mr Khaw said.

He was speaking at the opening of the first test centre for driverless vehicles, located outside Nanyang Technological University (NTU) and a part of the future JID.

Punggol, specifically the Punggol Northshore, Punggol Point and Punggol Digital districts, Tengah and JID were chosen as they are areas whose development timelines coincide with when the Government expects AV technology to be ready for limited deployment.

“Furthermore, it is expected that the relatively younger demographic in these areas would be more receptive to newer technologies and modes of travel,” said the Ministry of Transport and the Land Transport Authority.

The piloting of AVs will help the Government plan for the safe mass deployment of driverless vehicles.

Meanwhile, a Request for Information, open till May 31 next year, has been launched so that the Government can look at aspects like the physical space required for depots and other facilities, and the technologies needed.

Mr Khaw said: “The biggest challenge for autonomous vehicles is not the development of the technology, but how we can safely incorporate it into our living environment, through appropriate regulations and town planning.”

In October last year, a driverless car being tested by start-up nuTonomy collided with a lorry in the one-north test-bed area. The accident was due to an “extremely rare combination of software anomalies”, the company had said.

Professor Subodh Mhaisalkar, executive director of NTU’s Energy Research Institute, said the AV test centre offers companies a “simulated environment” to test their driverless vehicles against dummy vehicles and pedestrians, before they are deployed in one-north, and other areas in the future.

There are at least 10 companies and research institutes involved in AV testing in Singapore, with plans to launch driverless taxis as early as next year and to trial autonomous buses in 2020.

Mr Khaw said that AV technology will transform urban mobility and how people move about in the city.

“It is especially promising for Singapore because it can help alleviate the tight land and manpower limits that currently constrain our land transport system,” he said.

Prof Mhaisalkar said the new AV test centre will encourage trials of technologies which may hold breakthroughs.

“The development of AVs will be accelerated because you are not worried that if your experiment fails, you will be in the newspapers tomorrow,” he added.

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