Residents and workers in three new towns will be the first in Singapore to ride driverless buses. The Government has identified Punggol, Tengah and the Jurong Innovation District 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, are the latest in Singapore’s drive towards adopting autonomous vehicle (AV) technology, alongside other applications, announced earlier, such as campus driverless buses, truck platooning systems and unmanned road sweepers.

At these three new towns, it is envisoned that robot buses will run scheduled services during off-peak periods to complement human-driven cars, while driverless shuttles can be summoned on demand by commuters.

“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,” Khaw said.

He was speaking at the opening of the first test center for driverless vehicles, located outside Nanyang Technological University and a part of the future JD.

Punggol, specifically the Punggol Northshore, Punggol Point and the Punggol Digital Districts, Tengah, and JD were chosen as they are upcoming 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 demographics in these areas would be more receptive to new technologies and modes of travel,” said the Ministry of Transport (MOT) in a statement.

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

Professor Subodh Mhaisalkar, executive director of NTU’s Energy Research Institute, said the AV test Center, which has a 3.2km track, offers companies a “simulated environment” to test their driverless vehicles against dynamic vehicle and pedestrian behaviors 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. LTA had earlier linked deals with the UK-based Delphi Automotive Systems and US-based Mirror to launch driverless taxis as early as next year, and another agreement with ST Kinetics to trial autonomous buses from 2020.

AV technology is expected to 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 added.

Prof Mhaisalkar said the test center will push forward the development of AVs, by allowing companies to test out experimental technologies — such as sensors and software — which are not fully road-worthy but have the potential for breakthroughs.