

ST Kinetics to develop autonomous vehicles

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ST Kinetics will develop two autonomous buses and four self-driving shuttles here in its first major non-defence venture, with the results of this commercial undertaking likely to be exported to other cities with similar land transport challenges.

The unit of ST Engineering will partner the Land Transport Authority (LTA) to conduct trials for the autonomous buses, which are 12 metres long with a maximum speed of 60 kmh and can seat 40 people.

To be developed over 42 months in three phases, the buses will run on fixed and scheduled routes – likely in a JTC industrial estate – in 2020.

As for the self-driving shuttles or Mobility-on-Demand-Vehicles (MODV), ST Kinetics will work with Sentosa Development Corp (SDC) and the Ministry of Transport (MOT) for their trials on Sentosa.

In early 2019, visitors to the island can use a smartphone app to summon an MODV – which can seat 15-20 passengers – to provide autonomous mobility-on-demand service. ST Kin-

etics will also develop a fleet management system to analyse passenger demand planning and optimise route management for such ride sharing services.

These autonomous vehicle (AV) solutions were unveiled during an ST Engineering ceremony to announce the formation of the Singapore Autonomous Vehicles Consortium.

The consortium will facilitate and strengthen collaboration between industry partners and institutes of higher learning to develop AV standards and accelerate the application and adoption of AV technologies.

The partners include ST Kinetics, the Institute for Infocomm Research at A*Star, the National University of Singapore, the Singapore University of Technology and Design, the Singapore Institute of Technology and the Nanyang Technological University.

ST Engineering president and CEO Vincent Chong said that his company was not new to the areas of robotics and autonomous technology.

ST Kinetics is its land systems and specialty vehicles arm and has been developing unmanned vehicular systems for military use since 2000. It ex-

tended its expertise into the AV arena with the operationalisation of the MODV in Gardens by the Bay in 2015.

“However, to advance breakthrough applications in this space, it cannot be based on individual efforts,” he said, adding that as product innovation demands multi-disciplinary expertise, ST Engineering continually looks to strengthen its collaboration with the industry.

Mr Chong said of the consortium: “We will set common standards for the adoption of autonomous vehicles in real-world scenarios. The consor-

tium will also develop niche technologies such as automotive cybersecurity and advanced autonomy for buses and shuttles.”

LTA said that most AV technology developers are focusing their efforts on developing self-driving cars. Its chief technology officer, Lam Wee Shann, said: “Singapore’s need for high-capacity vehicles to address commuters’ peak-hour demands presents an opportunity for companies such as ST Kinetics to develop autonomous buses to address this latent demand.”