M1, Nanyang University launch 5G C-V2X research testbed

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Singapore operator M1 has partnered with Nanyang Technological University (NTU Singapore) to integrate 5G technology into cellular vehicle-to-everything (C-V2X) research testbeds and trials. M1 will provide the infrastructure for a 5G connected mobility testbed and trial by deploying three 5G base stations for C-V2X communications at the NTU Smart Campus.

The network’s radio efficiency is upgraded by massive Multiple-Input Multiple-Output that is designed to support hundreds of sensors on-board vehicles including transport infrastructure such as traffic lights. This is also expected to allow industry partners to co-design and co-deploy 5G connected mobility services for safety-critical use cases such as collision avoidance, real-time traffic routing, and network security. C-V2X equipment will be installed in shuttle buses and autonomous vehicles that ply the NTU Smart Campus. Industry partners will also be invited to explore the integration of this technology with autonomous vehicles, traffic infrastructure and unmanned aircraft systems.

Supporting Singapore’s efforts towards 5G urban connected mobility development, Minister of Communications and Information S Iswaran has announced the launch of the NTU Connected Smart Mobility Testbed to research, develop, and demonstrate new 5G connected mobility service in cooperation with industry players. Investments in the testbed deployment reach SGD 24 million. The 200-hectare NTU Smart Campus will enable the development and tests of transportation technologies using the international car-to-car wireless standard for vehicular use.

M1 recently signed a memorandum of understanding with the Singapore University of Technology and Design (SUTD) to start a joint research partnership around remote operation of tactile robots using 5G technology.