

M1 and NTU Singapore collaborate to integrate 5G into C-V2X communication for intelligent traffic solutions

 By **Wong Chung Wee** - on 17 Oct 2019, 1:28pm



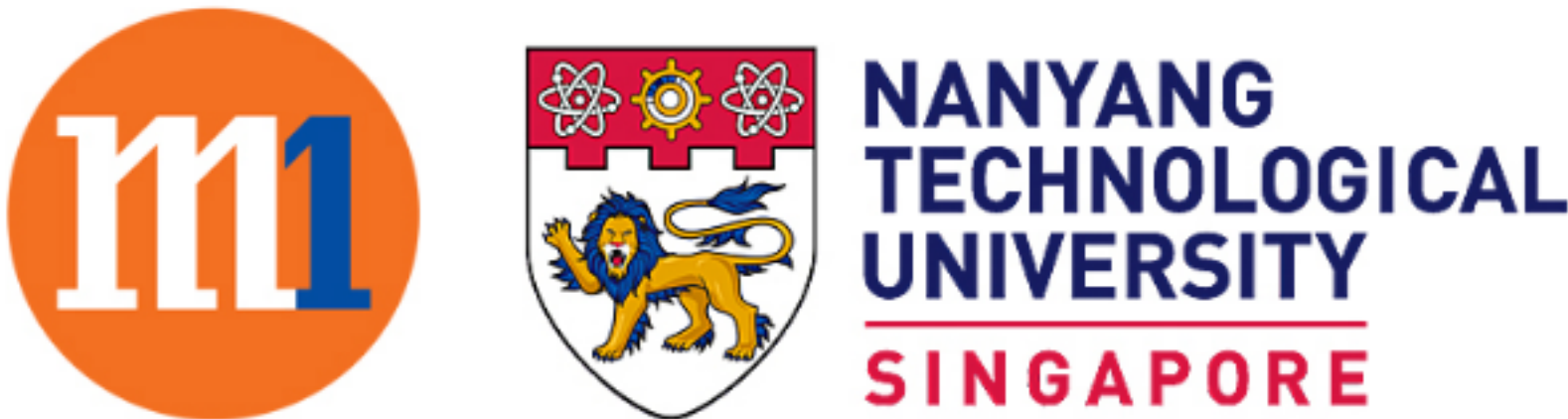


Image source: M1, NTU

M1 and Nanyang Technological University Singapore are in partnership to integrate 5G technology into cellular vehicle-to-everything (**C-V2X**) communication for intelligent traffic solutions. Their collaboration will see to the first of its kind 5G-based C-V2X research testbed.

M1 is in charge of providing infrastructure for a 5G connected mobility testbed. The company will also deploy three 5G base stations for C-V2X communication on NTU Smart Campus. The low latency and increased bandwidth will allow for reliable and ultra-fast C-V2X communication. M1 will make use of massive **MIMO** (multiple input, multiple output) antenna technology to increase coverage area and support hundreds of sensors on vehicles that include campus shuttle buses and autonomous vehicles to traffic infrastructure like traffic lights with embedded sensors.

Mr Denis Seek, Chief Technical Officer, M1, said,

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By being Singapore’s first to deploy a 5G network for C-V2X communications, this trial will serve as a live testbed for M1 to develop its technical competency and strengthen its readiness in harnessing new 5G technologies and infrastructure development. The partnership with NTU also underscores the significance of developing and attracting students to participate in experimental 5G connected mobility C-V2X projects, nurturing them to become future technology innovators and leaders for Singapore’s Smart Nation journey.

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This 5G testbed allows for real-world testing of the viability of 5G implementation in C-V2X communication for smart traffic systems. It will also allow for autonomous vehicle testing on NTU Smart Campus. NTU was involved in V2X testing with NXP Semiconductors on a specialized Wi-Fi campus wide network in 2017. Apparently, the varsity has moved on to a 5G communication network that’s in line with “Singapore’s push towards 5G urban connected mobility development.”

M1 has also made news recently as it participated in the 5G Trail Tech Call for real-world testing in a Smart Port environment. This is a joint effort with IMDA and PSA to study the feasibility of 5G technology in port applications.

Source: M1

m1

ntu

5g

v2x

c-v2x

ntu singapore

nanyang technological university