## **Electric tram that recharges quickly at passenger stops launches trial service**

By Jack Loughran

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Bluetram, a fully electric tram alternative that requires just 20 seconds to recharge at stations while passengers board and alight, has launched in Singapore.

The vehicles are designed to be as efficient as tram systems and come with fast-charging and emissionfree continuous operation.

Equipped with supercapacitors and a battery, the shuttle can travel two kilometres on a single charge, with backup power that provides for an additional 30 kilometres.

Furthermore, the costs of operating Bluetram is five to ten times lower than tram systems as it does not require costly infrastructure such as rails or catenary. A whole line can be deployed in a matter of weeks.

The road trials planned for the 22-seater shuttle will take place in Singapore's Jurong Innovation District where special charging stations have been built.

The shuttle was launched today by Professor Lam Khin Yong at the Nanyang Technological University (NTU) and Franck Vitté the managing director of BlueSG which has designed the charging system.

NTU President Professor Subra Suresh, said: "The move to introduce electromobility and cutting-edge transportation technologies is part of our vision to transform NTU into a Smart Campus.

"The use of electric vehicles in public transportation is rapidly expanding across the world, as it offers more efficient transportation systems and reductions in greenhouse gas emissions.

"As a leading global university with deep expertise in sustainable technologies, the NTU Smart Campus is already a living testbed for various sustainable and energy-efficient technologies and the perfect partner for BlueSG to test and develop electric shuttles for Singapore.

"We expect that the insights and innovations developed from this partnership will ultimately benefit Singapore and the world by enhancing the first-mile and last-mile transportation options."

This research partnership with BlueSG will run for two years and is supported by the Economic Development Board, Singapore.

The joint research team comprising scientists from NTU's Energy Research Institute (ERIAN) and BlueSG will study the actual on-road performance of the Bluetram in Singapore's tropical climate, including the user behaviour of passengers.

Professor Lam Khin Yong, NTU's Vice President (Research), said partnerships with leading industry players is crucial to translate research into real-life applications.

"NTU has a strong culture of translational research, especially in the areas of electromobility and sustainability. Having worked with leading industry players such as Volvo and BMW Group in similar areas, we look forward to working closely with Bolloré to testbed the new electric shuttle at NTU, under Singapore's climate and traffic conditions."

Singapore has long been keen to embrace the forefront of automotive technology in recent years.

An early trial for driverless taxis began in 2016 and the city later started testing driverless buses, too.