

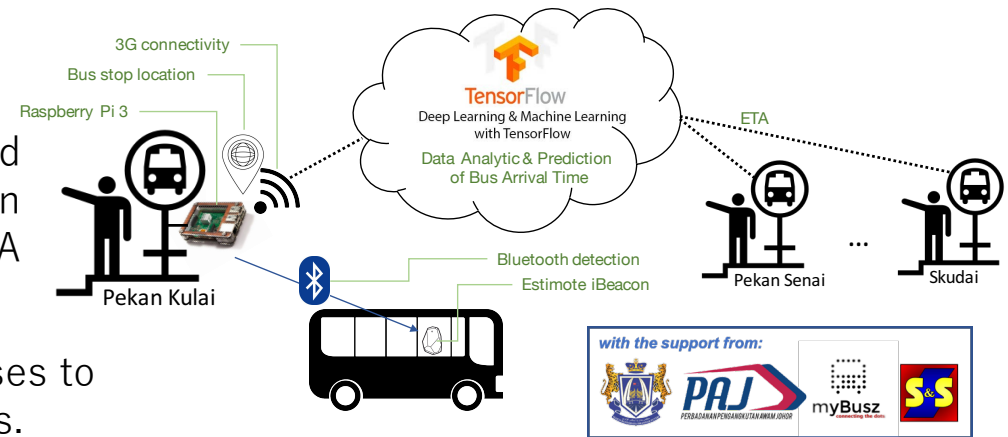
## Introduction :

Tracking of public bus location requires a GPS device to be installed, and many bus operators in developing countries do not have such a solution in place to provide an accurate estimated time of arrival (ETA). Without ETA information, it is very difficult for the public to plan their journey effectively.

This project proposes an innovative IoT solution to track the location of buses to collect transportation data without requiring the deployment of GPS devices.

It uses Bluetooth Low Energy (BLE) proximity beacon to track the journey of a bus by deploying an *Estimote* proximity beacon on the bus. BLE detection devices are installed at selected bus stops along the bus route to detect the arrival of buses. Once detected, the location of the bus is submitted to a cloud server to compute the bus ETAs and perform analytics.

With the data collected, the project will build deep-learning models to learn about the journey duration during peak and non-peak period. With an accurate predictive model and fleet monitoring dashboard, this will enable the municipal councils to monitor traffic flow and predict congestions in the future.



## Project Members :



Members	Affiliation	Members	Affiliation
Sharul Kamal bin Abdul Rahim (Project Leader), Abu Sahmah bin Md Supa'at, Jafri bin Din, Mohd Adib bin Sarijari, Omar bin Abdul Aziz, Olakunle Elijah, Siti Fatimah bte Ausordin, Muhammad Zairil bin Muhammad Nor	UTM, Malaysia	Achmad Basuki, Adhitya Bhawiyuga, Eko Setiawan, Agung Setia Budi	UB, Indonesia
Sye Loong Keoh, Chee Kiat Seow, Qi Cao	UGS, Singapore	Yung-Wey Chong, Mohd Najwadi Yusoff, Noor Farizah binti Ibrahim	USM, Malaysia
Somnuk Phon-Amnuaisuk, Md Saiful bin Haji Omar, Soon-Jiann Tan, Haji Idham Maswadi bin Haji Mashud	UTB, Brunei	Kok Chin Khor, Mau Luen Tham	UTAR, Malaysia