Bus tracking system without using GPS

Reliability in public transport is of great importance today. Many people travelling by public buses spend a lot of time waiting at bus stops. Our project focuses on presenting a solution to tackle the above problem. the project is implemented using IoT technology without using a GPS module . It will be beneficial for the people if they get to know the estimate arrival time of the buses. It will help them to plan their further journey.

The bus stops will be made smart by using on board unit and it will be connected to the cloud . The buses will have a wifi module.as the bus arrives on a bus stop it will be connected to OBU and the exchange of data will be initiated. The bus will send its unique bus number and arrival time to the OBU. The OBU will store the received data on the cloud. The nearby bus stops will access the stored data on the cloud and calculate the estimated arrival time.

Since the bus stops have static location. This property will be utilized to track the location of the buses that will be arriving at the bus stops without using GPS .

We have used raspberry pi 3B , nodeMCU(ESP12),cloud service.