RESULTS

The Shuttle General Information script generates the following information about the vehicle and its route. The map contains the current location of the vehicle and location of the stops, intersections and waypoints that EasyMile uses to track the progress of the vehicle. When accessed through the links, the map is zoomable and panable to examine regions of interest more closely.

```
Vehicle Information:
        vehicle ID number: VJRD1A10224000054
        last seen time: 2020-01-04T02:57:10.055685Z
        current position (on map): 103.77585451715645, 1.2939321165345241
        current orientation: 1.4613374471664429
        current speed: 0.0
        no. of passengers: null
        payload: 64
        battery: 73.0
        connection status: disconnected
        door status: closed
        ramp status: closed
Route Information:
        operation mode: Full Route
        next stop: Opp HSSML
        progress to next stop: 0.16959616005271294
        eta to Innovation4.0 (depart): null
        eta to Opp HSSML: 84
        eta to 29 HMK Terrace: 411
        eta to BIZ 2: 730
        eta to Innovation4.0 (return): 810
        full route distance: 1566.8291826900995
        Stop name Leave after (s) close door after (s)
 Innovation 4.0
1
       Opp HSSML
                               0
                                                    0
2 29 HMK Terrace
                               0
                                                    0
3
           BIZ 2
                               0
                                                    0
4 Innovation 4.0
                               0
                                                    0
Map Legend:
Purple square: current location
Red dots: stops
 Green dots: road junctions
 Yellow triangles: route waypoints
```



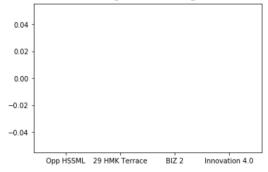
Figure 1: Maps displaying shuttle location, intersections and waypoints

The Post Route Analysis script generate data on passenger ridership, speed profile and displays the tracked locations on a map. It runs throughout as the shuttle moves from stop to stop and will generate results at the end of the loop. This allows us to identify anomalous points where the shuttle stops along the way and identify bottle necks to the shuttle's route.

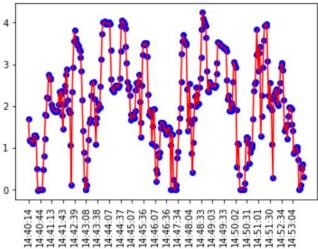
Distance travelled: 5.0 Battery used: 13.0 %

Graph of no of passengers served to each stop:

*side note: at the time of data collection, no passengers were on board the shuttle presumably due to the vacation period



Speed profile over time:



Map Legend:

Nazareth Bible-Presbyterian Church

Gold Coast

Condominium

Jamiyah Halfway

Purple square: stations Triangles: tracked locations Life Sciences Laboratory Prince George's Park BIZ2 LT 19 Prince George's Park Hon Sul en Memorial **ili** 13 119 The Property of Murkey to Institute of Systems Science Nonya Cafe Kent Ridge Hall Block C Bridge ISEAS Publishing

Figure 3: Tracked positions of the shuttle every second

ISEAS Library

ō