

FINAL DELIVERABLES

MEETING MINUTES

Date	18 November 2022
Team ID	PNT2022TMID35906
Project Name	Signs with Smart Connectivity for better Road Safety

Meeting minutes objectives:

- 1) Possible problem statements discussion
- 2) Problem statements - Possible solutions
- 3) simulating esp on wokwi
- 4) interconnecting ibm cloud and esp32
- 5) configuring Node red
- 6) Configuring openweathermap and connecting to node red
- 7) configuring mit appinventor and connecting to node red

1) Possible problem statements

- 1) people need to wait long time in traffic signals
- 2) people are unaware which lane is more traffic and which is free to travel
- 3) People waste their time waiting for long time in traffic
- 4) Sometimes life-saving vehicles get stuck in traffic
- 5) rainy days causing slippery roads which results in accidents

2) Possible solution:

- 1) Measuring traffic density in each lane using IR sensor and display lane with less traffic density
- 2) speed control based on changing climate conditions using openweathermap and humidity sensor
- 3) identify life-saving vehicles through camera and microphone and free up of lane
- 4) rather than static traffic timing, dynamic traffic light scheduling based on traffic density

5) through speed detecting device, check for speed limit and if people exceed limit, fine them by tracking owners account

3) Simulating esp through wokwi:

- 1) getting started with wokwi
- 2) Esp module, its specifications and uses
- 3) wokwi basic simulation of led using esp
- 4) interface esp with humidity sensor
- 5) interface esp with switches

4) Interconnecting esp and IBM cloud

- 1) getting started with IBM cloud
- 2) create account on IBM cloud
- 3) using IBM watson, add esp module

5) configuring node red:

- 1) getting started with node red
- 2) open node red through IBM cloud
- 3) connect esp module using IBM IOT
- 4) by extracting payload, display the information in node red web UI

6) Configuring Openweather map and connecting it with node red:

- 1) getting started with openweather map
- 2) create account in openweather map
- 3) using common get and set requests, extract weather information and display it in node red UI

7) Configuring Mlt app inventor and node red:

- 1) Getting started with mit app inventor
- 2) Creating account in mit app inventor
- 3) UI design flow
- 4) UI design for each page

4) Backend integration with ibm cloud