

## Project Objective

Date	13 November 2022
Team ID	PNT2022TMID51479
Project Name	Signs with Smart Connectivity for Better Road Safety

### Problem statement :

This project will replace static signs with smart signs that can adjust speed restrictions based on the weather and climate, display detour instructions in the event of an accident, and display alert messages in the event of hospitals, schools, or roadworks and using AI Sensor and AI chip to control the traffic signals and avoid the accidents in digital signs.

### Project Objective :

- Gain knowledge of Watson IoT Platform.
- Connecting IoT devices to the Watson IoT platform and exchanging the data and to display values.
- Gain knowledge of OpenWeatherMap API Service
- Creating a Web Application through which the user interacts with the device.

### Project Flow:

- Receiving road sign values to the IBM IoT platform from Node-RED Web UI
- Weather conditions can be viewed in the Web Application

To accomplish this, we have to complete all the activities and tasks listed below:

- Create and configure IBM Cloud Services
  - Create IBM Watson IoT Platform
  - Create a device & configure the IBM IoT Platform
  - Create Node-RED service
  - Create a database in Cloudant DB to store location data
- Develop a web Application using Node-RED Service.
  - Develop the web application using Node-RED
- Develop a python script to publish the location details to the IBM IoT platform .

