

Project Design Phase-I
Proposed Solution Template

Date	3 October 2022
Team ID	PNT2022TMID17665
Project Name	Project – Signs with Smart Connectivity for Better Road Safety
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	In present Systems the road signs and the speed limits are Static. But the road signs can be changed in some cases. We can consider some cases when there are some road diversions due to heavy traffic or due to accidents then we can change the road signs accordingly, if they are digitalized. This project proposes a system which has digital sign boards on which the signs can be changed dynamically. If there is rainfall then the roads will be slippery and the speed limit would be decreased. There is a web app through which you can enter the data of the road diversions, accident prone areas and the information sign boards can be entered through web app. This data is retrieved and displayed on the sign boards accordingly.
2.	Idea / Solution description	The Idea is to replace the static signboards. Instead, smart connected sign boards are used. These smart connected sign boards get the speed limitations from a web app using weather API and update automatically. Based on the weather changes the speed may increase or decrease. Based on the traffic and fatal situations the diversion signs are displayed. Guide (for Schools), Warning and Service (Hospitals, Restaurant) signs are also displayed accordingly. Additionally, Speed camera integrated with image processing technique is added to detect any traffic speed violations and charge fines.
3.	Novelty / Uniqueness	Usage of speed camera integrated with Image Processing technique for detection of speed violation.
4.	Social Impact / Customer Satisfaction	Diversion Indication System if traffic or constructions ahead. Speed limit Instructions. Guide (for Schools), Warning and Service (Hospitals, Restaurant) signs are displayed.

5.	Business Model (Revenue Model)	Since Image Processing and APIs are used for monitor, this project employs a decent business strategy and enhance services.
6.	Scalability of the Solution	Low-cost Implementation and Maintenance. Durability is of the product is high.