Project Design Phase-I
Proposed Solution Template

Date	13 October 2022
Team ID	PNT2022TMID38378
Project Name	**Project – Signs with Smart Connectivity for Better Road Safety**
Maximum Marks	2 Marks

Proposed Solution Template:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Road safety management refers to the process of identifying safety problems, devising potential strategies to combat those safety problems, and selecting and implementing the strategies. Effective safety management is also proactive and looks for ways to prevent safety problems before they arise. High-quality safety data should be used to determine the nature of road safety problems and how best to solve them. These data can be used to identify large-scale or small safety problems. Other data, such as roadway characteristics, traffic volume, citations, and driver history, can be integrated with crash data to assist in identifying safety trends and high-priority locations.
2.	Idea / Solution description	Connectivity also allows monitoring the flow velocity in real-time so you can **warn drivers on the screen of their cars that they are exceeding the speed limit**. They also warn the pilot to park in prohibited areas or other behaviors that do not comply with the law, thus avoiding penalties for drivers.
3.	Novelty / Uniqueness	It proposes a system that has digital signboards 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 road diversions, and accident-prone areas, and the information sign boards can be entered through the web app. This data is retrieved and displayed on the signboards accordingly.
4.	Social Impact / Customer Satisfaction	From speed limits to directions on where and when to turn, traffic signs provide a wealth of information. Following traffic signs helps to keep everyone on the road safe by **reducing the chances of drivers colliding with other vehicles, pedestrians, or cyclists**.
5.	Business Model (Revenue Model)	IoT is already working to ensure road safety in areas such as vehicle maintenance, improved circulation, navigation, and monitoring of environmental conditions or the state of the roads. IoT obtains the majority of its data with the help of connected cars. These incorporate a large number of sensors that establish communication with the cloud, other vehicles, and devices.
6.	Scalability of the Solution	Traffic management networks for improving safety and reducing congestion. The network uses speed cameras to provide warning signs for hazardous conditions and sends automated traffic diversion signals that control traffic.