**Project Design Phase-I**

**Proposed Solution Template**

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| Date | 19 September 2022 |
| Team ID | PNT2022TMID38206 |
| Project Name | 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.

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| **S.No.** | **Parameter** | **Description** |
|  | Problem Statement (Problem to be solved) | •Traffic management is an essential part of modern mobility, and traffic signals help optimize the existing network in the best possible way.  •It monitors and controls various modes of traffic in order to avoid congestion and to improve traffic flow.  •People fail to understand signs and violation of rules.  •Dynamic boards show all the information while static boards cannot. |
|  | Idea / Solution description | The OpenWeatherMap API is used to receive the weather and temperature information. The speed limit will be automatically changed based on this information and the current weather.  Additionally, specifics on any incidents and traffic bottlenecks encountered on the specific road are acquired.  Consequently,The traffic is then diverted, followed by a modification in the map's route.Therefore, some buttons will be installed on the traffic sign board that will be employed to make it more universal; each button will have a features like the ability to modify the warning indicators, which There will be specific, separate signs for the school and hospital zones.  By activating this button—either physically or through a web application—the board's sign can be adjusted appropriately, and the speed limit will be established in accordance with the zones. Additionally, if a pedestrian wants to cross the road, they have the option of changing the traffic signs. The traffic will be promptly assessed if the pedestrian presses the button that is located on the post at the end of the road. As a result, the traffic signal's sign will change. In consequence, even without pedestrians, this lessens the frequency with which traffic signs are changed. |
|  | Novelty / Uniqueness | • Provides drivers on the road with more thorough information.  • Generic Sign board for all applications that uses both buttons and web service for updation |
|  | Social Impact / Customer Satisfaction | • Diversion reasons will be displayed  • Real time information management  • A decline in accident rates  • To provide more efficient travel to the people . |
|  | Business Model (Revenue Model) | • Promoting the project to highway departments.  • LED signal lamp with a 5-year performance warranty that complies with EN12368 European standards. |
|  | Scalability of the Solution |  |