

Project Design Phase-I Proposed Solution Template

Date	15 october 2022
Team ID	PNT2022TMID09856
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.

S.No.	Parameter	Description
•	Problem Statement (Problem to be solved)	In present System 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 digilized.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.
•	Idea / Solution description	IoT is used in our system with Arduinio code and Node MCU controller with Blynk app. ArduinoDroid is a open source platform as a combination of software and hardware and Blynk server is used to control the communications between smartphone and hardware. *ArduinoDroid *Blynk server Provide the model with variety speed limits.
•	Novelty / Uniqueness	Safety for riders and pedestrians Advanced communication efficient Transportation Enhanced parking and e-tolling



		<p>Identifying problematic areas</p> <p>Improving pavement conditions</p> <p>Reducing pollution</p>
•	Social Impact / Customer Satisfaction	<p>The internet of things couldn't exist without smart sensors connectivity.Impacts of transport can simply be defined as those that are not economic or environmental or more broadly,as the effects on the preferences,well-being,behaviour or perception of individuals,groups,social categories and society in general in the future.</p>
•	Business Model (Revenue Model)	<p>The Signs smart connectivity solution model is implement and developed into the road safety.In its essence the approach migrates from the view that accidents are largely and automatically the driver's fault to a view that identifies and evaluates the true causes for accidents.Through the categorization of safety into the safety of three elements(vehicle,road and road user),signs smart connectivity minimizes fatalities and injuries by controlling speeds and facilitating prompt emergency response.</p>
•	Scalability of the Solution	<p>This work illustrates the viability if an economic road safety monitoring and assessment solution through exploiting advances in the Internet of Things(IoT)within the context of smart cities.The introduced architecture facilitates robust and dynamic road safety assessment that complements the safe system approach motivated by the World Health Organization(WHO),which has been increasingly adopted world wide.An application of the dynamic assessment framework for route planning is also demonstrated. Future work involves exploring further applications,especially in the road safety conditions during their trips.</p>