

Project Design Phase – I

Proposed Solution Template

Date	24 September 2022
Team ID	PNT2022TMID31446
Project Name	Sign with smart connectivity for better road safety using IOT
Maximum Marks	2 Marks

Proposed Solution Template:

S.No	Parameters	Description
1	Problem Statement (problem to be solved)	<ul style="list-style-type: none"> Static speed limit display causing recurrent accidents due to changing climatic and traffic condition, Waiting for fixed period of time in unstructured traffic condition, Life-saving vehicles not being prioritized.
2	Idea/Solution Description	<ul style="list-style-type: none"> To predict and display speed controls based on climatic condition and traffic density; To switch traffic signals dynamically based on traffic density; To pave way for highly prioritizing lifesaving vehicles
3	Novelty / Uniqueness	Smart road will bring about greater automation, high energy efficiency, low cost, improved public safety, cleaner, greener environment and less traffic.
4	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"> Controlling speed limits based on climatic and traffic condition saves life; Dynamically switching traffic signal saves time and effort. This can help to reach their destination on time and ensures the safety while travelling.

5	Business Model (Revenue Model)	<ul style="list-style-type: none"> • Selling prototype to Government and Road contractors like L&T is monetarily beneficial.
		<ul style="list-style-type: none"> • Practical setup needs maintenance which could only be done by professionals which in turn is regular cash flow. • Data collected for predicting traffic congestions are priceless • Instead of static speed limit setup, dynamically controlled speed limits are cheaper in long run • As government supporting smart cities, smart roads and controls are essential and easily approvable. • As investments are not much bigger, 50 – 70 % returns is acceptable
6	Scalability of the Solution	The prototype scaled to practical level requires fund which acts as lucrative investment with future prospects.