

Project Design Phase-I
Proposed Solution Template

Date	24 September 2022
Team ID	PNT2022TMID49512
Project Name	IOT- 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)	❖ Arun is an car driver, he needs to control the vehicles speed by using NFC technology to avoid the accidents.
2.	Idea / Solution description	<ul style="list-style-type: none"> ❖ Using magnetic sensor for detection of vehicle count properly.To develop a protocol between sensor nodes for communication traffic congestion. ❖ Near Field Communication (NFC) tag must be placed in all vehicles.
3.	Novelty / Uniqueness	<ul style="list-style-type: none"> ❖ Near Field Communication(NFC) is a technology that use for the purpose of identification and tracking using radio waves. ❖ NFC tags are passive devices that can be used to communicate with active NFC devices. ❖ NFC reader reads the data from NFC tags.
4.	Social Impact / Customer Satisfaction	<ul style="list-style-type: none"> ❖ Drivers can receive updated information on the road traffic, weather conditions and decreasing breakdowns and therefore prevent accidents. ❖ Reducing the rate of accidents. ❖ To provide more efficient travel to the peoples . ❖ It helps to reduce the accidental death rate.
5.	Business Model (Revenue Model)	<ul style="list-style-type: none"> ❖ NFC technology deals with traffic offences and improvement of both active and passive vehicle safety to the customers. ❖ NFC tags are available in low cost and it gives the more satisfaction to the customers. ❖ Simultaneous multiple detection of vehicles are possible using NFC. ❖ This technology will improves better road safety performance to the society.

6.	Scalability of the Solution	<ul style="list-style-type: none"> ❖ Multi task convolution neural network and ROI based system could be accelerated using the GPU,to improve efficiency. ❖ Ultrasonic sensor used to detect object distance and vehicles speed will control through object distance level. ❖ NFC technology brings more benefit to the customers satisfaction.
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