Project Design Phase Ⅰ
Proposed Solution Template

Date	08September2022
TeamID	PNT2022TMID08723
ProjectName	Signs with smart connectivity for betterroadsafety
MaximumMarks	2Marks

Proposed Solution Template:

Projectteamshallfillthefollowinginformationinproposedsolutiontemplate.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Preventroadusersfrombeingkilledorseriously injured
2.	Idea/Solutiondescription	TheweatherandtemperaturedetailsareobtainedfromtheOpenWeatherMapAPI. Using these details, the speed limitwill be updated automatically inaccordancewiththeweatherconditions. Also,thedetailsregardinganyaccidentsand traffic congestion faced on theparticular road are obtained .Based onthis,the traffic is diverted followed by achange in map path and the traffic iscleared.
3.	Novelty/Uniqueness	GenericSignboardforallapplicationsthatuses both buttons and web service forupdation Pedestrians are given the accessto request the sign change of the signal tocrosstheroad.
4.	Social Impact / CustomerSatisfaction	Diversion reasons will be displayed Ifthere is no traffic, pedestrians can crossthe street without waiting. Customer canreachthedestinationbeforetheexpectedtime.
5.	BusinessModel(RevenueModel)	Since APIs are used to actively monitorthe customer's environment, this projectemploys a business strategy in whichrevenuewillbegeneratedonthebasis ofthelengthoftimeinwhichthe customers actively interact with theproduct. Thisproductisaimedtobefreeofcostto the public, but the revenue will begeneratedbysellingthisproducttotheg overnment at a low cost, so there willbelessaccidentsandthepublicwillbe

		awareofthediscrepanciesoraccidentsint heparticularroad.
6.	ScalabilityoftheSolution	In the future, if any update is requiredeither on the hardware or software side,it can be easily implemented. Thehardware components can be directlyinterfaced with the microcontroller andsmall modifications can be made in theprogramming of the existing product. Incase of the software, the websiteapplication has to be updated with theadditional functionality by creating anewsectionfortheupdatedhardware.Sot hiswill not affect the existing functionalityof the product and new functionality canbe easily integrated. In addition, aseparate circuit will be kept along withthe hardware to detect any problemwhichinformsthewebapplication. Alsoa notification will be sent to the productservicedepartment.