

PROJECT DESIGN PHASE – 2

Solution Requirements (Functional & Non – functional)

Date	15 October 2022
Team ID	PNT2022TMID35906
Project name	Signs with Smart Connectivity for Better Road Safety
Maximum marks	4 marks

FUNCTIONAL REQUIRMENTS:

FR NO	Functional Requirements
1	IR sensor
2	IBM cloud
3	Open weather map
4	Web application
5	Access / modify database

NON-FUNCTIONAL REQUIREMENTS:

NFR NO	Non-functional requirement	Description
1	Usability	Smart road technology can assist in optimizing traffic flow and managing road conditions, creating more sustainable environment.
2	Security	Traffic signs provide valuable information to drivers and other road users. They represent rules that are in place to keep you safe,

		and help to communicate messages to drivers and pedestrians that can maintain order and reduce accidents. Neglecting them can be dangerous.
3	Reliability	The system uses data from the environment and processes it in real time so drivers can stay assure that the signs provide best results to them
4	Performance	The system is very efficient in periodic checking of traffic density and based on that traffic signal's duration is reduced. It reduces the passenger's waiting time and gives better performance.
5	Availability	Availability of this system enable emergency response vehicles to arrive more quickly at a destination by dynamically changing traffic signals and blocking cars from entering the lanes before first responders have passed through.
6	Scalability	Extending functionality and features of the system on the regular basis based on traffic density.