Project Design Phase-II
Solution Requirements (Functional & Non-functional)

Date	14 October 2022
Team ID	PNT2022TMID21273
Project Name	Signs with Smart Connectivity for Better Road Safety
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	VISIBILITY OF THE ROAD SIGNS	The boards that shows signs such as accident prone zone, pedestrian zones, wildlife crossing zones and others according to the data that were previously collected should be clearly visible to the end users and the people who travel by road.
FR-2	TIMELY UPDATES OF THE ROAD SIGNS AND THE TRAFFIC SIGNALS	The information that were collected from the Iot sensors that were set up along the road signs will be used to indicate the speed limits , accident zones and others in order to intimate the end users even more faster . Hence the timely updates plays an important role.
FR-3	RESOURCE CONTROL	A system built using the RA shall be able to remotely control and configure devices. The remote monitoring device may be configured by via the M2M network by the M2M application entities. These configuration capabilities will span simple parametric changes, such as, reporting rates, event or alarm trigger levels, and others.
FR-4	QoS,DATA HANDLING & COMMUNICATION, USAGE	We can initiate communication with the persons travelling via road for a number of reasons.
FR-5	DISCOVERY & LOOKUP, GEOLOCATION	High value assets needs to be tracked down to it's very location such as the exact location of the deployed Iot sensor, exact location where there has been any routing of traffic and for even remote monitoring of devices this is very essential.

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	The Iot sensors deployed, the computational environment all will be able to function on it's own way making the application user friendly.
NFR-2	**Security**	A system built using the ARM shall provide ways to ensure security and resilience
NFR-3	**Reliability**	The information displayed on the road signs and the warning messages and alert messages will be correct and errorless in-order to make it reliable.
NFR-4	**Performance**	The system should be able to update itself properly at times if fatal conditions and provides necessary driving measures.
NFR-5	**Availability**	The information and the alarm messages, warning messages will always be available on the cloud for tracking and the information displayed from the sign boards will always be available irrespective of the unfavourable conditions.
NFR-6	**Scalability**	The system will be compatible for any number of devices that are connected to the Iot hub.