PROJECT DESIGN PHASE-II
SOLUTION REQUIREMENTS (FUNCTIONAL & NON-FUNCTIONAL)

Date	03 October 2022
Team ID	PNT2022TMID15148
Project Name	Project – SIGNS WITH SMART CONNECTIVITY FOR BETTER ROAD SAFETY
Maximum Marks	4 Marks

SIGNS WITH SMART CONNECTIVITY FOR BETTER ROAD SAFETY

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User Registration	• Registration through Form • Registration through Gmail • Registration through LinkedIN
FR-2	User Confirmation	• Confirmation via Email • Confirmation via OTP
FR-3	User tracking	Speed Cap automatically updated to reflect the current weather. The diversion signs are automatically flashed in life-threatening circumstances.
FR-4	User Visibility	Bright coloured LEDs should be used in sign boards to draw the attention of drivers.
FR-5	User Understanding	The display should be large enough to accurately display all the signs so that they are clear to see even for far-off cars.
FR-6	Information delivering time	Before a specified distance, the driver must get the accident report in order to modify the intended path.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	Product with an easy user interface. It doesn't require any prior training and may be used and understood by everyone.
NFR-2	**Security**	To prevent hackers from accessing the IoT-based system without authorisation, a strong security solution must be implemented.
NFR-3	**Reliability**	Correct and permitted signs should be presented for high dependability.
NFR-4	**Performance**	In the event of unexpected incidents and weather changes, automatic updating should be performed.
NFR-5	**Availability**	The necessary power source or battery should be provided to the sign boards since they must operate continuously.
NFR-6	**Scalability**	It ought to be applied to the whole roadway network.