

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

Date	03 October 2022
Team ID	PNT2022TMID22101
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	<ul style="list-style-type: none">• Registration through Form• Registration through Gmail• Registration through LinkedIn
FR-2	User Confirmation	<ul style="list-style-type: none">• Confirmation via Email• Confirmation via OTP
FR-3	User tracking	Speed Cap changed itself to match the weather at the time. When a situation is life-threatening, the diversion signals illuminate automatically.
FR-4	User Visibility	Sign boards should employ vivid coloured LEDs to catch drivers' attention.
FR-5	User Understanding	The display has to be large enough to clearly show all the signs so that even far-off drivers can see them.
FR-6	Information delivering time	The driver must obtain the accident report prior to a predetermined distance in order to alter the intended course.

Non-functional Requirements:

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

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	Product with a simple user interface. It may be used and understood by everyone and doesn't require any prior training.
NFR-2	Security	A robust security solution must be put in place to stop hackers from accessing the IoT-based system without authorization.
NFR-3	Reliability	Signs should be displayed correctly and legally to ensure high reliability.
NFR-4	Performance	Automatic updating should be carried out in the event of unforeseen accidents and weather changes.
NFR-5	Availability	The sign boards should be given the requisite power source or battery because they need to run continually.
NFR-6	Scalability	It should be utilised across the whole road system.