

**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"> <li>• Registration through Form</li> <li>• Registration through Gmail</li> <li>• Registration through LinkedIn</li> </ul>
FR-2	User Confirmation	<ul style="list-style-type: none"> <li>• Confirmation via Email</li> <li>• Confirmation via OTP</li> </ul>
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.

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