

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

Date	03 October 2022
Team ID	PNT2022TMID10531
Project Name	SIGNS WITH SMART CONNECTIVITY FOR BETTER ROAD SAFETY
Maximum Marks	4 Marks

**Functional Requirements:**

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	<ul style="list-style-type: none"><li>• When crowd on accident occur it guides the travellers to choose best path.</li><li>• Intimates the speed range depending upon roadway condition.</li><li>• Ensure the vehicles are redirected to right path without causing much trouble for other drivers.</li><li>• Easy to follow instructions based on given data on the digital board.</li></ul>
NFR-2	<b>Security</b>	<ul style="list-style-type: none"><li>• Prediction of data gives them a fair and better road understanding about their upcoming of toad events.</li></ul>

NFR-3	<b>Reliability</b>	<ul style="list-style-type: none"> <li>Helps to travellers behaviour towards awareness of travel.</li> </ul>
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Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	User visibility	<ul style="list-style-type: none"> <li>Informations can be written in short form in the sign boards so that it can be very easily captured by drivers.</li> <li>Place sign boards on popular places.</li> <li>Symbols can be used so that drivers can save some amount of time in reading.</li> <li>Static signs can be replaced by smart signs to reduce accidents.</li> </ul>
FR-2	User convenience	<ul style="list-style-type: none"> <li>Display should be larger which can be visible from far distance.</li> </ul>
FR-3	User need	<ul style="list-style-type: none"> <li>Awareness programmes should be conducted to bring awareness among the users about road safety.</li> <li>Road safety education is essential for users.</li> </ul>

#### Non-functional Requirements:

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

NFR-4	<b>Performance</b>	<ul style="list-style-type: none"> <li>Pre-functional record of voice record along with LED display provide in waiting time at traffic signs.</li> <li>There is a rain drop sensor which checks whether there is a rain, to transmit data over IOT helps to display on LED along with wifi connection of internet changing data dynamically with current reporting of event sensing flow of data</li> </ul>
NFR-5	<b>Availability</b>	<ul style="list-style-type: none"> <li>Monitors the road events even in low light on poor weather conditions.</li> <li>Record traffic offenses</li> </ul>
NFR-6	<b>Scalability</b>	<ul style="list-style-type: none"> <li>It is user friendly interface.</li> <li>Data accessibility is easy from source.</li> </ul>