

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

Date	07 October 2022
Team ID	PNT2022TMID52636
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	Transport Agency Registration	Register for getting approval to implement the smart sign boards for better road safety
FR-2	Sensor implementation	Monitoring traffic density and road condition, pedestrian monitoring and controls traffic signals.
FR-3	Weather Monitoring	Open weather API implemented to monitor weather reports and update in database
FR- 4	Web UI	Information on the smart boards will also be displayed in the web UI when the pedestrians travel in the road

**Non-functional Requirements:**

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

FR No.	Non-Functional Requirement	Description
NFR-1	<b>Usability</b>	Easy to follow instructions displays on the board. Understanding the signs should be clear.
NFR-2	<b>Security</b>	Provide better security, any other third party can't able to display information in the board, Users data are kept confidential.
NFR-3	<b>Reliability</b>	It can be able to withstand in any weather condition and the hardware parts require periodic monitoring to avoid any damage. It is dynamic in nature and reduce traffic congestion.
NFR-4	<b>Performance</b>	The smart display improves the safety, and it makes user tense free and keep them in a comfort zone. Also, quality of service is improved.
NFR-5	<b>Availability</b>	The solution is available 24X7 and withstand any climate changes
NFR-6	<b>Scalability</b>	It can be implemented efficiently in anywhere and data execution will be faster. Provides better safety