

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

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| Date | 05 November 2022 |
| Team ID | PNT2022TMID25683 |
| Project Name | SIGNS WITH SMART CONNECTIVITY FOR BETTER ROAD SAFETY |
| Maximum Marks | 4 Marks |

Functional Requirements:

| FR No. | Non-Functional Requirement | Description |
|--------|----------------------------|---|
| NFR-1 | Usability | <ul style="list-style-type: none">When crowd on accident occur it guides the travellers to choose best path.Intimates the speed range depending upon roadway condition.Ensure the vehicles are redirected to right path without causing much trouble for other drivers.Easy to follow instructions based on given data on the digital board. |
| NFR-2 | Security | <ul style="list-style-type: none">Prediction of data gives them a fair and better road understanding about their upcoming of toad events. |
| NFR-3 | Reliability | <ul style="list-style-type: none">Helps to travellers behaviour towards awareness of travel. |

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">Informations can be written in short form in the sign boards so that it can be very easily captured by drivers.Place sign boards on popular places.Symbols can be used so that drivers can save some amount of time in reading.Static signs can be replaced by smart signs to reduce accidents. |
| FR-2 | User convenience | <ul style="list-style-type: none">Display should be larger which can be visible from far distance. |
| FR-3 | User need | <ul style="list-style-type: none">Awareness programmes should be conducted to bring awareness among the users about road safety.Road safety education is essential for users. |

Non-functional Requirements:

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

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|-------|---------------------|--|
| NFR-4 | Performance | <ul style="list-style-type: none">• Pre-functional record of voice record along with LED display provide in waiting time at traffic signs.• 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 |
| NFR-5 | Availability | <ul style="list-style-type: none">• Monitors the road events even in low light on poor weather conditions.• Record traffic offenses |
| NFR-6 | Scalability | <ul style="list-style-type: none">• It is user friendly interface.• Data accessibility is easy from source. |