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

| Date          | 03 October 2022   |
|---------------|---|
| Team ID       | PNT2022TMID44776  |
| Project Name  | Project - Signs with Smart Connectivity for Better<br>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   | User Visibility               | Sign Boards should be made of bright coloured LEDs       |
|        |                               | capable of attracting driver's attention                 |
|        |                               | Not too distracting to cause accidents                   |
| FR-2   | User Understanding            | Should display information through means like            |
|        |                               | images/illustrations with text so that the user can      |
|        |                               | understand the signs correctly                           |
| FR-3   | User Convenience              | Display should be big enough to display all the signs    |
|        |                               | correctly so that it is visible even to far away drivers |

## **Non-functional Requirements:**

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

| FR No. | Non-Functional Requirement | Description   |
|--------|----------------------------|---|
| NFR-1  | Usability                  | Should be able to dynamically update with respect to time.                            |
| NFR-2  | Security                   | Should be secure enough that only the intended messages are displayed in the display. |
| NFR-3  | Reliability                | Should convey the traffic information correctly.                                      |
| NFR-4  | Performance                | Display should update dynamically whenever the weather or traffic values are updated  |
| NFR-5  | Availability               | Should be on service 24/7   |
| NFR-6  | Scalability                | Should be modular and hence able to scale on servers horizontally.                    |