

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

|               |  |
|---------------|--|
| Date          | 03 October 2022                                      |
| Team ID       | PNT2022TMID26698                                     |
| Project Name  | Signs with smart connectivity for better road safety |
| Maximum Marks | 4 Marks  |

## Functional Requirement

| FR No. | Functional Requirement (Epic)  | Sub Requirement (Story / Sub-Task)   |
|--------|--------------------------------|--|
| FR-1   | User Registration              | Registration through Form<br>Registration through Gmail<br>Registration through LinkedIn |
| FR-2   | User Confirmation              | Confirmation via Email<br>Confirmation via OTP   |
| FR-3   | Login mail                     | Login mail id  |
| FR-4   | Confirmation login mail        | Check the confirmation mail  |
|        | Confirmation verification code | Check the verification code  |
|        | Confirm registration           | Check the registration   |

## Non-functional Requirements:

| FR No. | Non-Functional Requirement | Description   |
|--------|----------------------------|---|
| NFR-1  | <b>Usability</b>           | Newly sensed data can facilitate an understanding of the road context, the road network map, and establish severity of turns, the presence of shoulders, and whether the road is on a hillside. Identifying a vehicle's location through an on-board GPS (whether dedicated or through a smartphone) would thereby provide for a first level of this understanding. |
| NFR-2  | <b>Security</b>            | The software is protected from unauthorized access to the system for drivers, the growing maturity of DBM will facilitate identifying unsafe or distracted driving behaviour. It will also enable the recognition of localized driving  |

|       |                     |  |
|-------|---------------------|--|
|       |                     | behaviour facilitating the identification of emerging incidents.   |
| NFR-3 | <b>Reliability</b>  | The software to work without failure for a given period of time. it decreases because of bugs in the code, hardware failures ,problems with other system components.   |
| NFR-4 | <b>Performance</b>  | Performance is a quality attribute that describes the It is possible to consider a meaningful safety metric based on the live (or real-time) status of the road. For example, the safety level of a certain segment/road depends on the aggregate safety of vehicles currently traversing it, combined with the number of potholes and/or the wetness or how slippery is the road, in addition to safety/alertness of the drivers on the road. |
| NFR-5 | <b>Availability</b> | The team has to define the most critical components of the system that must be available at all times. You should also prepare user notifications in case the system or one of its parts becomes unavailable.  |
| NFR-6 | <b>Scalability</b>  | Scalability requirements describe how the system must grow without negative influence on its performance. This means serving more users, processing more data, and doing more transactions.  |