**Project Design Phase-I**

**Solution Architecture**

| Date | 08 October 2022 |
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| Team ID | PNT2022TMID12755 |
| Project Name | Project – Signs with smart connectivity for better road safety |
| Maximum Marks | 4 Marks |

**Solution Architecture:**

∙ To replace the static signboards, smart connected sign boards are used. ∙ These smart connected sign boards get the speed limitations from a web app using weather API and update automatically.

∙ Based on the weather changes the speed may increase or decrease.

∙ Based on the traffic and fatal situations the diversion signs are displayed. ∙Guide (Schools), Warning and Service (Hospitals, Restaurant) signs are also displayed accordingly.

**Example - Solution Architecture Diagram:**

An illustration of the model is provided in Figure. A central emphasis is given to speed in the SS approach as it is the strongest and most fundamental variable in the outcome of fatality. The fragility of the human body makes it unlikely to survive an cushioned impact at a speed of more than 30 km/h, with lower speeds resulting in either death or serious injury [3, 4]. Te objective of the SS approach is that the three model elements should be designed and monitored to proactively prevent deadly speeds from happening and allow for a reduced emergency response time in the event of an accident. Elements of the SS approach are as follows. Safe Vehicle. Emphasis on vehicle safety is verified through mandated regulatory testing and rating, as well as technologies such as electronic stability control. Beyond this, enforced checks (e.g., upon license renewals) combined with on the road reporting work to review the status of vehicle safety. Safe Road. the assessment of road (or road network) safety is multifaceted. Road inspection enables clear and direct observation of the state of the road and assesses the need for repairs or modifications. the structure of the road network is amenable to safety assessment through partitioning into what is called “Traffic Analysis Zones (TAZs)”. In addition, considerations for crash data and other supporting data offer further insights into general safety assessment. In 2011, the European Road Assessment Programme (Euro RAP) generated the European Road Safety Atlas for EU countries. Te atlas indicated the safety level of roads with a star rating based on specially equipped vehicles for multimedia-based data aggregation. the Euro RAP efforts continue to implement an SS approach across the EU, along with several other national programmers within the International RAP, or I RAP, initiative. (3) Safe Road User. Tere are several aspects to road user safety, including measures for education and awareness, travel distance, exposure, licensure, enforcement, and sober





