

### **Project Design Phase-I || Proposed Solution Fit**

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|---------------------|---------------------------------|
| <b>Date</b>         | 17/10/2022                      |
| <b>Team ID</b>      | PNT2022TMID44153                |
| <b>Project Name</b> | Smart Solutions For<br>Railways |

#### **Proposed Solution :**

| <b>S.No</b> | <b>Parameter</b>                                | <b>Description</b>   |
|-------------|---|--|
| <b>1.</b>   | <b>Problem Statement (Problem to be solved)</b> | <ul style="list-style-type: none"><li>• Keep track of passengers and schedule their journey accordingly.</li><li>• Information about the route cancellation of tickets ,departure time , arrival time , number of trains available and other such information.</li><li>• Store and retrieve information about the various transactions related to rail travel.</li><li>• Mostly railway gates are operated manually by labours this can be digitalized by automatic gate</li></ul> |

|    |  |   |
|----|--|---|
|    |  | system.   |
| 2. | <b>Idea / Solution description</b>           | <ul style="list-style-type: none"> <li>• Smart sensors can be used to track important assets, manage passenger flow, and enable predictive maintenance.</li> <li>• IoT devices can also monitor the driver's behaviour and can inform about the driving style and idling time.</li> <li>• The railway gates are operated by automatic gate system.</li> </ul> |
| 3. | <b>Novelty / uniqueness</b>                  | The uniqueness of our proposed paper is that it helps railways successfully manage passengers safety, operational efficiency and passenger experience   |
| 4. | <b>Social Impact / customer satisfaction</b> | Information regarding train arrival and departure time, no of trains available, train current location makes the customer more  |

|    |                                       |   |
|----|---------------------------------------|---|
|    |                                       | satisfied.  |
| 5. | <b>Business Model (Revenue Model)</b> | It is the cheapest mode of transportation and attracts many customers.  |
| 6. | <b>Scalability of the Solution</b>    | <ul style="list-style-type: none"> <li>• Iot sensors, vibration and temperature sensor, rail crossing sensors, rail friction sensor, obstacle detecting sensor.</li> <li>• These sensors are used for safety and greater reliability. Thus by this proposed solution we can avoid rail line crossing deaths, monitor rail friction, detect obstacles and track maintenance</li> </ul> |

**TEAM MEMBERS :**

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