**Project Design Phase – I**

|  |  |
| --- | --- |
| Date | 24 September 2022 |
| Team ID | PNT2022TMID11580 |
| Project Name | Smart Solutions For Railways Using IoT |
| Maximum Marks | 2 Marks |

**Proposed Solution Template:**

Project team shall fill the following information in proposed solution template.

|  |  |  |
| --- | --- | --- |
| **S.No.** | **Parameter** | **Description** |
| 1. | Problem Statement (Problem to be solved) | Smart Solutions For Railways Using IoT |
| 2. | Idea / Solution description | Smart railway described the passenger ticket generation, ticket validation, with Unique Identification Authority of India (UIDAI) under the smart train transportation the vision of India 2022 and the experimental result proved that IoT system is effective than well known  System. Handling the passenger reservation data has been a key point of consideration in most railway services. The smart railways research report also provides an in-depth analysis of proposed. |
| 3. | Novelty / Uniqueness | * Reduce operation and maintenance costs. * It is fast process. * Data efficiency is more. * Information is accurate. |
| 4. | Social Impact / Customer Satisfaction | Smart railway can have a better understanding of customers’ needs. In terms of comfort, availability of seats, comfortable in the units of carriage, temperature, smoothness of ride, and punctuality are the aspects in the dimensions, whereas connection as the second dimension measures adequacy of support services, such as parking facilities, easy accessibility, frequency of trains, and suitable time to board on train, while the last dimension, which is convenience, measures travel information, online counter service, such as ease of buying tickets and convenient office hours at the terminal. |
| 5. | Business Model (Revenue Model) | * Global System Mobile Communications- Railway (GSM-R) * Long Term Evaluation (LTE) * fifth generation (5G) * IEEE 802.11 * Wireless Sensor Networks (WSN) |
| 6. | Scalability of the Solution | The Smart railways database maintained by two data bases one is railway data base and another one is UIDAI. The passenger details as input that will match with the UIDAI data base and that information stored in railway reservation database. The Simulation environment is tested with one hundred stored UIDAI passengers information and developed coding smart railway system. We obtained the experimental results on PYTHON programming language and proved the effective result on IoT system. The existing PRS model is a omniscient system it can be modified to IoT system. It IoT system  In build UIDAI based verification scheme. The total time is required to book the ticket using IoT system is not take more than 4 mile seconds. The smart reservation system is provides efficient searching and indexing operations are needed for fast query processing. |