Project Design Phase-I

Date	24 September 2022
Team ID	PNT2022TMID31845
Project Name	Smart support for railways
Maximum Marks	2 Marks

Proposed Solution:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	• To design a webpage where public can view and book tickets and to enable paperless ticket verification. • To track the live location of all the trains • To increase smart facilities in railways to ensure passenger safety and comfort
2.	Idea / Solution description	• A QR code is generated whenever a person books a ticket with all the information required to verify the ticket. An entry booth can be designed to verify the QR based ticket and allow the passenger inside the station. • The live location of the train is captured and updated to all the passengers immediately through the application which is used to understand the delay in the train timings. Also based on the location, a wakeup call is provided to the passenger while nearing his destination and to automatically open and close the crossing barricades in the path. • To enable environmental light based switching ON and OFF of the lights to enable reduced power usage, to continuously monitor the health of loco pilot and alert the authorities in times of emergency, to install automated door systems in passenger trains and to adaptively change the temperature of air conditioners in AC coaches.
3.	Novelty / Uniqueness	• Automated waiting list clearance • Health monitoring of loco pilot • QR based entry and exit into stations • Wakeup calls and automatic barricades using live location

4.	Social Impact / Customer Satisfaction	• The passengers would be protected from unwanted or ticketless people entering into the railway station • Prevention of accidents that happens because of the emergency conditions of loco pilot and also due to careless railroad crossings • Passengers would have reduced waiting times • Optimized electricity usage
5.	Business Model (Revenue Model)	Transaction Revenue Model
6.	Scalability of the Solution	The booking and tracking software can support a large number of customers. The automations can be implemented in a large scale.