# Project Design Phase-I
## Proposed Solution

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| Date | 8 November 2022 |
| Team ID | PNT2022TMID13378 |
| Project Name | Smart Solution for Railway |
| 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) | In order to reach the objectives set out for this paper, Section II provides a detailed problem description, which includes an overview of approaches . This paper introduces the main concepts of establishing a smart railway station under the context of smart city. |
| 2. | Idea / Solution description | Automated train operation (ATO) is a solution that provides support for automation of driving function (e.g., starting, accelerating, braking, and stopping) that is used in conjunction with the safety automatic train protection (ATP) function of train control systems. higher resilience of international transportation. Smart sensors and analytics across the train engine, coaches, and tracks allow rail systems to be remotely checked and repaired before a small. |
| 3. | Novelty / Uniqueness | REDS – Safety & Efficiency Improvements Their Eco Driving system enhances the energy efficiency of all rail vehicles and helps optimize energy usage by automatically controlling the usage or suggesting actions like slowing down, speeding up, maintaining a constant speed or controlling heating and cooling. |

| 4. | Social Impact / Customer Satisfaction | People were able to take short holidays and day trips to the beach. Many sports became regulated because national competitions could be set up for rugby, football and cricket. (i)Railways are the principal mode of transportation for freight and passengers in India. (ii)Railways also make it possible to conduct multifarious activities like business, sightseeing, pilgrimage along with transportation of goods over longer distances. British time became standardised for the first time because trains had to run to a set timetable across the country. Railways encouraged people to travel further and this meant people could move to different areas to find work. |
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| 5. | Business Model (Revenue Model) | Optimisation solutions allow rail operators to model scenarios and transform information and insights in to action with automated. Advanced consumer technologies help maximise connectivity and allow passengers to continue their activities on smart devices while Smart sensors and analytics across the train engine, coaches, and tracks allow rail systems to be remotely checked and repaired before a small business collaboration, and intelligent services. The overall structure model of the smart railway is shown in Figure. Smart railway signaling systems implementation · Implementation of railroad integrated control systems · Remote access to critical systems |
| 6. | Scalability of the Solution | To support trade and transport connectivity globally in times of pandemic the United Nation agencies have jointly launched a project titled- Trade and transport connectivity in times of pandemics: with overarching objective of developing contactless, seamless and collaborative solutions to preserve and further enhance the trade and transport connectivity. In Asia and the Pacific, ESCAP is leading the project and has initiated series of studies aimed at supporting countries in this direction. The present study on smart railway solutions has been carried out under the project with aim to identify smart railway solutions that are proven<br>to be successful elsewhere and are potentially replicable and scalable. |