Project Design Phase-I
Proposed Solution Template

Date	21 September 2022
Team ID	PNT2022TMID18318
Project Name	Project – Traffic and Capacity Analytics for Major Ports
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)	The Infrastructural development and capacity augmentation of Major Ports is a continual process. The process inter-alia includes mechanization of the Ports by way of use of latest version of crane and other equipment/techniques for quicker turnaround of cargo. The Indian railways has a capital base of about 1 lakh crores and is often referred to as the lifeline of the Indian economy. As it includes transportation of bulk freight and long-distance passengers, traffic and congestion on rail corridors becomes a major challenge
2.	Idea / Solution description	Port Technology International defines a smart port as a port that uses automation and innovative technologies including AI, Big Data, IoT and Blockchain to improve its performance. Data analytics can be applied to visualize freight Transportation and congestion on rail corridors across major railway ports to get better insight of the working of port network and to improve the port connectivity.
3.	Novelty / Uniqueness	Can also predict the time at which the particular Train will arrive and depart. The port has the distinction of possessing Supercape handling facility and the deepest container terminal among Major Ports of India.
4.	Social Impact / Customer Satisfaction	Adequate resources will be provided for the customers regarding the arrival, departure and delay of the trains
5.	Business Model (Revenue Model)	Businesses using railway ports can easily track the trains. Government can use data analytics dashboard to ensure less traffic on the ports. Port performance plays a vital role in determining a port's market position. Port users are concerned with port performance while

		stakeholders have their own agenda regarding port and associated activities. The level of performance is affected by different factors and can be enhanced in a variety of ways. Excluding management factors and the country's current political situation.
6.	Scalability of the Solution	The solution can be used almost for all modes of transportation including the ships and so on. Thus it is scalable for almost all modes of transportation. First, at the national level a smart port roadmap is needed, together with a comprehensive analysis of the industrial ecosystem, such as the direction of vessel development, changes in the global economic structure, the transshipment port and the trade structure of the port's city. Then countries should define a detailed strategy and action plan as well as an analysis of which technologies are useful to a smart port.

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