

## PROJECT DESIGN PHASE – I

### PROPOSED SOLUTION

Date	<b>23 September 2022</b>
Team ID	<b>PNT2022TMID37898</b>
Project Name	<b>IOT-Smart Solutions for Railways</b>
Maximum Mark	<b>2 marks</b>

S.No	PARAMETER	DESCRIPTION
1	Problem Statement (Problem to be solved)	In order to provide safe and secure journey to the passenger by using <b>NODE-RED Service Web Application</b> .
2	Idea/Solution description	<ul style="list-style-type: none"><li>➤ Using Web application (developed by NODE-RED Services), user will be able to <b>book the tickets based on the availability of seats</b>.</li><li>➤ The <b>live location</b> of train will be <b>published in the IoT platform</b> using python code</li><li>➤ The <b>train location</b> can be easily <b>tracked</b> using web application.</li></ul>
3	Novelty/Uniqueness	<ul style="list-style-type: none"><li>➤ The main goal is provide an <b>authenticated and authorized booking system</b>.</li><li>➤ To provide user friendly platform for the users.</li></ul>
4	Social Impact/Customer Satisfaction	<ul style="list-style-type: none"><li>➤ To improve railway service and the commuter's experience</li><li>➤ The system will also be useful for <b>crowd analysis</b>.</li><li>➤ To improve the authentication of railway ticket booking system</li></ul>
5	Business Model(Revenue Model)	<ul style="list-style-type: none"><li>➤ In the business point of view, application is used to manage the passenger flow.</li><li>➤ Efficiently <b>reduces the labour cost</b>.</li><li>➤ The ticket collector can easily verify the ticket by scanning the unique QR code .</li></ul>
6	Scalability of the solution	<ul style="list-style-type: none"><li>➤ The <b>passenger flow can be easily measured</b>.</li><li>➤ The ticket booking system becomes more authenticated.</li><li>➤ The passenger can track the live location the train from anywhere.</li></ul>