

**Project Design Phase**  
**Proposed Solution Template**

Date	15 February 2025
Team ID	LTVIP2025TMID33015
Project Name	<b>Traffic Telligence:Advanced Traffic Volume Estimation Using Machine Learning</b>
Maximum Marks	2 Marks

**Proposed Solution Template:**

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

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Traditional traffic volume estimation methods rely heavily on costly infrastructure and provide limited real-time insights.
2.	Idea / Solution description	The solution uses machine learning models—such as Graph Neural Networks and LSTMs—to analyze historical, sensor, and GPS data for accurate traffic volume prediction
3.	Novelty / Uniqueness	t delivers high-accuracy predictions even with sparse sensor data, outperforming traditional estimation methods.
4.	Social Impact / Customer Satisfaction	By reducing traffic congestion and improving commute times, the solution enhances overall urban mobility and quality of life.
5.	Business Model (Revenue Model)	Additional revenue streams include customized consulting, integration services, and licensing of predictive models for smart city and mobility solutions.
6.	Scalability of the Solution	The solution leverages cloud-native architecture and streaming data pipelines to scale seamlessly across cities and regions.