

Project Design Phase
Proposed Solution Template

Date	27 june 2025
Team ID	LTVIP2025TMID41330
Project Name	traffictelligence: advanced traffic volume estimation with machine learning
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)	Accurate traffic volume estimation is a major challenge in smart city planning. Manual methods are inefficient and real-time prediction is rarely available.
2.	Idea / Solution description	We propose " Traffictelligence ", an AI-based traffic volume estimation system that uses weather, date, and time inputs to predict traffic load accurately. It is deployed via a Flask web interface for easy access.
3.	Novelty / Uniqueness	Our model uses machine learning with weather and time data, tailored for Indian road conditions. Unlike traditional methods, it offers real-time predictions accessible via a user-friendly web app.
4.	Social Impact / Customer Satisfaction	Helps traffic departments reduce congestion, improves emergency route planning, and supports smart infrastructure. Commuters benefit from smoother, more predictable travel.
5.	Business Model (Revenue Model)	The system can be licensed to government departments, offered as a subscription service to traffic management systems, or monetized via API integration with navigation apps.
6.	Scalability of the Solution	The model is easily scalable to any city by retraining on local data. Cloud deployment and API-based architecture enable easy integration into larger traffic management ecosystems.