Project Design Phase
Proposed Solution Template

Date	29 June 2025
Team ID	LTVIP2025TMID46233
Project Name	TrafficTelligence: Advanced Traffic Volume Estimation with Machine Learning
Maximum Marks	2 Marks

Proposed Solution Template:

The project team shall fill the following information in the proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Traffic congestion in urban areas leads to delays, increased pollution, fuel wastage, and commuter stress. Traditional systems are unable to predict traffic volume accurately.
2.	Idea / Solution description	TrafficTelligence is a web-based machine learning system that predicts traffic volume using weather and time-based inputs. Users input basic data and receive volume forecasts.
3.	Novelty / Uniqueness	Combines Random Forest regression with real-time user inputs in a web interface. Easy to use, customizable, and built to support future integration with live traffic APIs.
4.	Social Impact / Customer Satisfaction	Helps commuters save time, reduces fuel consumption and pollution, and enables traffic departments to manage congestion better. Enhances quality of urban life.
5.	Business Model (Revenue Model)	Freemium model: Free for public users; premium API plans for integration with navigation apps, city planning portals, or B2B smart mobility platforms.
6.	Scalability of the Solution	Easily scalable to multiple cities by retraining on local datasets. Can be extended to mobile apps, integrated with IoT sensors, or deployed on the cloud.