

PROJECT DESIGN PHASE

Proposed Solution

Date	28-06-2025
Team ID	LTVIP2025TMID45015
Project Name	TrafficTelligence: Advanced Traffic Volume Estimation with Machine Learning
Maximum Marks	2 marks

The proposed solution is a web-based machine learning application that predicts traffic volume based on environmental and time-related inputs. The system uses a trained regression model to estimate the number of vehicles expected on the road.

Core Components:

- Trained ML model (Linear Regression)
- Flask backend to handle inputs and serve predictions
- User-friendly web interface with HTML/CSS
- Data preprocessed from 40,000+ real-world entries

Users enter weather and time features via the web form. The model processes the data and returns a predicted traffic volume. This prediction helps the user make informed travel decisions.