Project Design Phase
Proposed Solution Template

Date	28 June 2025
Team ID	LTVIP2025TMID59815
Project Name	Traffictelligence : Advanced Traffic Volume Estimation with Machine Learning
Maximum 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)	Increasing urban traffic congestion leads to inefficiencies in travel, higher fuel consumption, and pollution. Existing traffic monitoring systems are either outdated, expensive to maintain, or lack real-time adaptability.
2.	Idea / Solution description	Traffictelligence leverages advanced machine learning algorithms to estimate real-time traffic volume using low-cost sensors and video data from existing city infrastructure. It integrates data from various sources (CCTV, GPS, IoT sensors) to provide highly accurate, adaptive traffic insights for urban planners and commuters.
3.	Novelty / Uniqueness	Unlike traditional traffic estimation systems, Traffictelligence uses deep learning models trained on diverse urban scenarios to improve accuracy over time. It also adapts to non-standard traffic patterns like events or roadblocks, making it robust in dynamic conditions.
4.	Social Impact / Customer Satisfaction	The solution promotes smoother urban mobility, reduces commuter frustration, lowers environmental impact, and supports smarter city planning. It can empower government agencies to make informed decisions and improve citizens' daily commute.
5.	Business Model (Revenue Model)	Revenue can be generated through SaaS subscriptions for municipalities and traffic departments, consulting services for smart city projects, and licensing the technology

		to private transportation companies or app developers.
6.	Scalability of the Solution	The modular architecture and cloud-based infrastructure of Traffictelligence allow it to be easily deployed across cities of various sizes. It can integrate new data sources, scale to monitor multiple intersections, and adapt to different regional traffic norms.