

**Project Design Phase-I  
Proposed Solution Template**

Date	24 SEPTEMBER 2022
Team ID	PNT2022TMID01039
Project Name	<b>Trip Based Modeling Of Fuel Consumption In Modern Fleet Vehicles Using Machine Learning</b>
Maximum Marks	2 Marks

**Proposed Solution Template:**

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

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	when a fleet manager wants to predict the fuel consumption of fleet vehicles and wants to prevent fraudulent activities in fleet management which require appropriate external and internal factors to predict accurately.
2.	Idea / Solution description	The main aim of the project is to build Machine Learning algorithm to predict the fuel consumption of fleet vehicles based on the gas type . A web application is built which is integrated with ML model .
3.	Novelty / Uniqueness	The novelty of the proposed tool lies in the precise understanding of the road as well as in the study of the vehicle's parameter's impact on fuel consumption. This work is of great interest for a truck fleet manager wanting to quantify the fuel cost of the trip's external conditions while varying for instance the truck's cargo.

4.	Social Impact / Customer Satisfaction	->Improving fuel economy offers us the promise of reducing our oil use without requiring us to sacrifice driving our vehicles. Reduced oil use, in turn, means both fewer carbon dioxide (CO2) emissions and a smaller economic impact when oil prices rise, thereby improving both the environment and our economic security.
5.	Business Model (Revenue Model)	Stock-flow cohort modelling of the automobile fleet is a powerful and handy tool for policy analysis. Even quite simple and straightforward solutions. Mesoscopic models are a combination of microscopic and macroscopic simulation models. They describe the individual vehicles at a high level of detail, but their behaviour and interactions are described at a lower level of detail.
6.	Scalability of the Solution	Scalability describes by Predicting fuel consumption per trip based on dynamic on-road data can help the automotive industry to reduce the cost and time for on-road testing. Data modeling can easily help to diagnose the reason behind fuel consumption with a knowledge of input parameters . With further help of <b>Machine Learning the solution can be proposed.</b>