

# Trip Based Modelling of Fuel Consumption in Modern Fleet Vehicles Using Machine Learning

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## **OBJECTIVE:**

Ability to model and predict the fuel consumption is vital in enhancing fuel economy of vehicles and preventing fraudulent activities in fleet management. Fuel consumption of a vehicle depends on several internal & external factors. However, not all these factors may be measured or available for the fuel consumption analysis. 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. The fuel economy of heavy-duty vehicles is affected by several real-world parameters like road parameters, driver behaviour, weather conditions, and vehicle parameters, etc. Although modern vehicles comply with emissions regulations, potential malfunction of the engine, regular wear and tear, or other factors could affect vehicle performance. 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. 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.