**PROJECT 08**

**PUBLIC TRANSPORTATION EFFICIENCY ANALYSIS**

**PHASE 02:** **INNOVATION METHODS**

We can use data from station sensors and ticketing systems to monitor passenger flow at public places. We can implement crowd management strategies to distribute passengers efficiently among available vehicles like public bus, train etc.

Preventing overcrowding and ensure passenger safety by installing image sensing programs that can analysis for crowd in public transport.

Implementation of chat bots or AI-powered virtual assistants to assist passengers with inquiries and issues

**MACHINE LEARNING ALGORITHMS**

We can use some of the machine learning algorithms like Time series Analysis, Natural language processing

**Time Series Analysis:** Public transport data often involves time series data, and algorithms like ARIMA (Auto Regressive Integrated Moving Average) can be used to forecast ridership and traffic patterns

**Neural Networks:** Deep learning models, such as recurrent neural networks (RNNs) can be used for time series forecasting and sequence-to-sequence tasks like predicting arrival times.

**Natural Language Processing (NLP):** NLP techniques can be used for sentiment analysis of user feedback or for chat bots to assist passengers with inquiries and issues.