**Design and Methodology for Prediction of Demand for Public Transportation Services Using Data Analytics.**

**Abstract:**

In this paper we present a design and methodology for conducting experiments on different data analytics techniques to predict the demand for public transportation services. The experiment utilizes three datasets; demand\_data, demographic\_data and weather\_data. Our proposed methodology includes steps such as data preparation, preprocessing, outlier detection feature standardization, encoding of categorical variables and exploration of multiple machine learning (ML) and time series analysis methods. Our ultimate goal is to identify the accurate predictive model that can improve the efficiency and reliability of public transportation services.

**Introduction:**