



VIT[®]
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

SCHOOL OF ADVANCED SCIENCES- (SAS)

Fall semester-2022-2023

AIR PASSENGER DEMAND

FORECASTING

Submitting fulfillment for the SET-project

MSC BUSINESS STATISTICS

BY

PAVITHRA J-22MBS0005

VIKRAM R-22MBS0017

PRAVEEN KUMAR B-22MBS0029

Under the guidance of

SH. KHADAR BABU

ASSOCIATE PROFESSOR

ABSTRACT:

The most significant factor to consider when making predictions is travel demand, which accounts for 80% of the increase in passenger traffic. An additional 20% is stimulated by the availability of additional frequencies. Demand for air travel is almost always correlated with the state of the economy. Time series forecasting methods that can be implemented automatically are offered. However, they are not rote formulae because they are founded on a flexible philosophy that can present various models for discussion. Furthermore, it offers a variety of diagnostics for determining how effectively a series can be forecasted, both qualitatively and statistically. The models under consideration are known as ARIMA models because the model fitted to a long memory time series is based on advanced time series analysis of AR schemes fitted to residuals Y generated through parsimonious best lagoon-stationary autoregression. An ARIMA model provides both long-term and short-term projections. The goal of this research is to create a forecasting model of short-term air passenger demand based on big data from search queries in order to identify these short-term variations.

KEYWORD: Time Regression analysis, Moving averages, Auto Correlation, Robust regression.

Work plan

| Task | Description of the task | Start Date | End Date |
|-------------------|--|------------|------------|
| Literature Survey | Preparation of Abstract | 10.10.2022 | 14.10.2022 |
| Module 1 | Collecting the dataset from the Internet | 15.10.2022 | 05.11.2022 |
| Module 2 | Data cleaning | 06.11.2022 | 06.12.2022 |
| Module 3 | Exploratory Data Analysis | 07.12.2022 | 23.12.2022 |
| Module 4 | Data Visualization | 24.12.2022 | 04.01.2023 |
| Module 5 | Writing research paper | 05.01.2023 | 19.01.2023 |