NATIONAL INSTITUTE OF INDUSTRIAL ENGINEERING, MUMBAI

presents online MDP on

BUSINESS FORECASTING, PREDICTIVE ANALYTICS AND APPLICATIONS OF MACHINE LEARNING

Faculty Trainers

Dr. Ajaya Kumar Panda
Assistant Professor
(Finance and Economics)

Dr. Poonam Singh
Assistant Professor
(Finance and Economics)

Sep 26 to Sept 30, 2021

Duration : 3 hrs/class

Registration link : https://forms.office.com/r/kqifKKHtnu

Payment link : https://www.onlinesbi.com/sbicollect/icollecthome.htm?corpID=370600

INTRODUCTION

The field of applied econometrics with business implications has emerged over the last decade. Keeping this in mind, the present program aims to present the quantitative models to solve business forecasting using applied predictive analytics. Quantifying business problems and solving through applied econometrics using latest industry friendly interface like python make the program challenging. This course is intended to help practitioners cut through the vast literature on econometric models and techniques of predictive analytics. The course is designed for researchers and practitioners in the private and public sector. Our aim is to provide a road map from academic perspective to the research issues that are important for researchers and practitioners.

COURSE OBJECTIVE

This short course aims to discuss the broader aspect of econometric modeling and predictive analytics. It aims to cover applied econometric tools relating to univariate and multivariate econometric modeling, Ordered and Multinomial Logistic Regression as well as key aspects of default prediction. The course also aims to discuss the broader aspects of Machine Learning algorithms along with predictive analytics using python.

COURSE CONTENT

1. Business Forecasting using Time Series Data, Seasonality and Univariate Modelling
2. Exploring Cause and Effect: Predictive Analytics
3. Discrete Choice Model: Logistic Regression, Ordered Logistic Regression, Multinomial Logistic Regression Default Probability, Loss Given Default, Expected Loss and Credit Risk
4. Introduction to Machine Learning: Regression Model, Polynomial

LEARNING OUTCOMES

1. Understanding Time Series Properties and Univariate Modelling
2. Applying Forecasting techniques and Predictive Analytics
3. Application of Logistic Regression: Binary, Multinomial and Ordered
4. Understanding Machine Learning Models
5. Application of Python

PRE-REQUISITES

- Personal computer with Python (we will be using Google Colab.)
- Basic knowledge of statistics is expected.
- Basic understanding of Python is expected to install packages/library.
- However, the course is design in such a way that participants with little knowledge in statistics and zero knowledge in computer language like Python can easily manage to learn data modelling in this course.