

## Workshop on Statistical Machine Learning for Data Science

**Date:** Friday, 14 April 2023 - Saturday, 15 April 2023

**Time:** 10am to 5:00pm

**Venue:** Symbiosis Statistical Institute, S B Road, Vishwabhavan Campus, Pune-04

**About workshop:** In today's digital era, the widespread use of various technologies and computers has led to generation of massive data. Different organisations use this opportunity for their benefit with the help of data professionals. Data professionals must have an understanding of statistical machine learning as with these methods they will be able to suggest data driven informed decisions with more accurate models.

**Objectives:** To enhance understanding towards Statistical Machine Learning in order to overcome challenges faced while developing various business/other models. Further to enable data professionals to collaborate and deploy ML models.

**Learning outcomes:** This workshop will help the participants understand principles of machine learning and how statistics is crucial while developing machine learning models. At the end of this workshop, participants will be able to get an understanding about how statistical machine learning can help in making better/informed decisions and deploy ML models.

### Who can participate?

Any data/analytics professional or researcher who desires to understand more about machine learning models. Preference will be given to the participants who are already working or engaged with projects and/or involved in data related aspects and have basic knowledge of R software.

Prerequisites- Understanding about Linear Models, Multivariate Analysis.

### Workshop outline:

- Traditional statistical techniques and machine learning: Differences and overlaps
- Overview of ML techniques
- Supervised Machine Learning: Decision trees, random forest, Top down approach, Growing and Pruning, Information measures, use cases.
- Support Vector Machines: Supporting and Separating Vectors, margins between populations, hard and soft margins, kernel functions
- Artificial Neural Networks: Perceptron, Feed Forward Neural Network, Multilayer Perceptron, Convolutional Neural Network, Recurrent Neural Network
- Logistic regression, Discriminant analysis, Naive Bayes, over fitting and under fitting
- Unsupervised Machine Learning: Agglomerative Hierarchical clustering, K means clustering.

**Important Note:**

- e-certificate will be provided after successful completion of workshop
- Used e-material will be shared after completion of workshop.

**Registration Details:**

- Registration fees: 5000/- (+18% GST)
- Last date of registration: 13 April 2023
- Please register using link: <https://forms.gle/7Ug5XCGtWMJpioW6>

**-Account Details-**

Beneficiary Name	Symbiosis Statistical Institute
Bank Name	Bank of India
Bank Branch	Karve Road, Pune
A/c No	050310210000089
IFSC Code	BKID0000503
MICR Code	411013011

-For further query write to us email: [training@ssi.edu.in](mailto:training@ssi.edu.in) or call us on 020 25925163/020 25669310 (between 10am to 5pm).