



South Indian Education Society's  
GRADUATE SCHOOL OF TECHNOLOGY, Navi  
Mumbai.  
DEPARTMENT OF INFORMATION  
TECHNOLOGY



**Value Added Course on Deep Learning**  
**January 1 to January 5, 2024**  
Click [here](#) to register

This student development program is meant to brush up the basic concepts of Programming in Python visualization, Machine and Deep Learning from skill development perspective. Also quantitative aptitude will be covered along with practice tests. At the end of this SDP, students will complete one project.

**About Instructors:**

This course will be taught by an eminent expert from Industry and SIESGST faculty members of the Information Technology Department.

**Industry Experts**

- Syed Aamer Hashmi, Data Scientist, Findability Sciences Pvt. Ltd.

**Internal Expert:**

- Dr. Sulochana Madachane , Assistant Professor
- Dr. Poornima S, Associate Professor
- Prof. Samundiswary Srinivasan, Assistant Professor

**Course Objectives:**

To differentiate between Machine Learning and Deep Learning
Understand how to interpret and communicate visualizations using Python Libraries.
Implementation of an application using Deep Learning.

**Course Outcomes:**

- Students will learn popular data visualization libraries such as Matplotlib, Seaborn, and Plotly.
- Students will analyse data using library in Python.
- Students will be able to implement Association, Classification and Clustering algorithms.

- Students will be able to understand basics of neural networks and Convolution Neural Network (CNN)
- Students will be able to study a deep learning framework like TensorFlow or PyTorch.

**Course Content:**

Prerequisite: Data Ware Housing, Basic Python

Day	Contents	External Expert/ Internal Faculty Member	Hours
1.	<b>Visualization using Python</b> Data Visualization - Types of Graphs ,Data Analysis & Visualization - Using Popular Python Packages Matplotlib ,Seaborn ,scipy, Plotly, Data Pre-processing	Prof. Samundiswary Srinivasan	6 hrs
2.	<b>Machine Learning</b> Introduction to Association, Classification and Clustering algorithms.	Dr. Poornima S	6 hrs
3.	<b>Deep Learning</b> Introduction to ANN, Activation Function, Handwritten Digit Recognition using ANN	Dr. Sulochana Madachane	6 hrs
4.	<b>Deep Learning</b> Introduction to Convolution Neural Network , Handwritten Digit Recognition using CNN, Hyper parameters of CNN	Dr. Sulochana Madachane	6 hrs
5.	<b>Industrial Use Cases of Statics &amp; ML</b>	Syed Aamer Hashmi	6 hrs

**Assessment:**

1. Module wise assignments and quizzes should be completed by students.
2. Mini project should be completed.

- **Course Coordinator:** Prof. Sampada Lovalekar, Assistant Professor, IT Department  
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