



## SYMBIOSIS INTERNATIONAL (DEEMED UNIVERSITY)

(Established under section 3 of the UGC Act 1956)

Re - accredited by NAAC with "A" Grade

Founder: Prof. Dr. S. B. Mujumdar, M.Sc., Ph.D. (Awarded Padma Bhushan and Padma Shri by President of India)

Course name :- Supervised Machine Learning Lab  
 Course Code :- TE7500M  
 (UG/PG): :- UG  
 Number of Credits :- 2  
 Level :- 2  
 Faculty :- Engineering  
 Specialization :- Computer Science

Learning Objective(s) :-

- 1. Understand the concept of training set, testing, and validation set
- 2. Perform the Exploratory Data Analysis
- 4. Apply the Regression algorithm for Prediction
- 3. Apply the suitable algorithm based on problem

Pedagogy :-

- 2. Project based Learning
- 1. Interactive Teaching Learning
- 3. Hands-On

Pre-requisites:-

- None

Evaluation Method :-

- Continuous Assessment
- Quizzes
- Practical
- End Semester Examination: a. Viva b. Practical Examination

Course Outline :-

Sr NO	Topic	Hrs
1	<u>Implementation of Simple Linear Regression</u> • <u>Add New</u>	<u>2</u>
2	<u>Implementation of Multiple Linear Regression</u> • <u>Add New</u>	<u>2</u>
3	<u>Implementation of Polynomial Linear Regression</u> • <u>Add New</u>	<u>2</u>
4	<u>Implementation of Ridge and Lasso Regression</u> • <u>Add New</u>	<u>2</u>

5	<b><u>Implementation of K-Nearest Neighbor</u></b> • <a href="#">Add New</a>	<u>2</u>
6	<b><u>Implementation of Decision Tree</u></b> • <a href="#">Add New</a>	<u>2</u>
7	<b><u>Implementation of Logistic Regression</u></b> • <a href="#">Add New</a>	<u>2</u>
8	<b><u>Implementation of SVM classifier</u></b> • <a href="#">Add New</a>	<u>2</u>
9	<b><u>Implementation of Naïve Bayes</u></b> • <a href="#">Add New</a>	<u>2</u>
10	<b><u>Implementation of Decision Tree</u></b> • <a href="#">Add New</a>	<u>2</u>
11	<b><u>Implementation of Ensemble Methods</u></b> • <a href="#">Add New</a>	<u>2</u>
12	<b><u>Project</u></b> • <a href="#">Add New</a>	<u>8</u>
	<b>Total</b>	<b>30</b>

Books Recommended :-

- [Machine Learning McGraw hill education 1st edition Tom Mitchell](#)
- [The Machine Learning Engineering book Oliver Andriy Burkov](#)

Benchmarked against similar courses in other national/ international universities /organizations :-

- [Machine Learning VIT, Pune Link: http://www.vit.edu/](#)
- [Machine Learning Savitribai Phule Pune University, Pune Link: www.unipune.ac.in](#)