DADI INSTITUTE OF ENGINEERING & TECHNOLOGY

Approved by AICTE & Permanently Affiliated to JNTUK
NAAC Accredited Institute & Inclusion u/s 2(f) & 12(B) of the UGC Act
NH-16, Anakapalle, Visakhapatnam-531002, Andhra Pradesh, diet.edu.in

MACHINE LEARNING USING PYTHON LIBRARY

Course Instructor :

Dr. L.Prasanna Kumar,
HOD & Professor, CSE Department
Dadi Institute of Engineering & Technology

Duration :

6 Weeks : (03/01/2022 – 12/02/2022)

Overview & Need for the Course:

Students are learning basics of machine learning in the course curriculum. However they need to learn some advanced topics for working on real time applications. The course covers al basic algorithms of Machine learning.

Course Objectives:

- To introduce students to the basic concepts and techniques of Machine Learning.
- To develop skills of using recent machine learning software for solving practical problems.
- To gain experience of doing independent study and research.

Course Outcomes:

Students will be able to:

- Recognize the characteristics of machine learning that make it useful to real-world problems.
- Characterize machine learning algorithms as supervised, semi-supervised, and unsupervised.
- Effectively use machine learning toolboxes.
- Be able to use support vector machines.
- Be able to use regularized regression algorithms.
- Understand the concept behind neural networks for learning non-linear functions.
- Understand and apply unsupervised algorithms for clustering.

- Understand the foundation of generative models.
- Understand the inference and learning algorithms for the hidden Markov model.
- Understand the learning algorithm for hidden Markov model with latent variables.
- Understand algorithms for learning Bayesian networks.
- Understand reinforcement learning algorithms.

Requirements

❖ Basics Knowledge on Python.

❖ Basics Knowledge on preprocessing

Course Contents

- Module 1 – Introduction to Machine Learning
- Module 2 – Supervised Learning and Linear Regression
- Module 3 – Classification and Logistic Regression
- Module 4 – Decision Tree and Random Forest
- Module 5 – Naïve Bayes and Support Vector Machine
- Module 6 – Unsupervised Learning
- Module 7 – Natural Language Processing and Text Mining
- Module 8 – Introduction to Deep Learning
- Module 9 – Time Series Analysis.

Week 1	Week 2	Week 3
Introduction to ML	Linear Regression	Linear Discriminant Analysis
Reinforcement Learning	Multivariate Regression	Linear Classification
Unsupervised Learning	Partial Least Squares	Logistic Regression
Supervised Learning	Shrinkage Methods	Project

Week 4	Week 5	Week 6
Support Vector Machines	Artificial Neural Networks	Regression Trees
Hinge Loss Formulation	Training and Validation	Decision Trees
Perceptron Learning	Parameter Estimations	Decision Trees Examples

List of Participated students

1	18U41A0501	ADADI NAGA DIVYA
2	18U41A0502	ADARI SARVANI
3	18U41A0503	ANDUKURI HEMALATHA
4	18U41A0504	ANKIREDDY DEVA
5	18U41A0505	APPIKONDA LOHITHA
6	18U41A0506	ATTA NIKHITHA
7	18U41A0507	BOKKU MOHAN
8	18U41A0508	DAMAROUTHU GUNAVARDHAN
9	18U41A0509	ADARI LEENA GOWTHAMI
10	18U41A0510	BODDAPATI SANDHYA
11	18U41A0511	BODDEDA CHARAN
12	18U41A0512	BODDU SUSHMA SAHITHI
13	18U41A0513	BOLLA RANADHEER KRISHNA
14	18U41A0514	BOLLAPRAGADA KAAMESWARI SOWMYA
15	18U41A0515	BORA MOUNIKA
16	18U41A0516	BUDDHA PRATHYUSHA
17	18U41A0517	D CHANDINI
18	18U41A0518	DADI ARAVINDA
19	18U41A0519	GARIKINA NAVEEN
20	18U41A0520	GEMMELI SAI SUSHMA
21	18U41A0521	GUDUPU DEEPIKA
22	18U41A0522	KARRI SHYAM SRIDHAR
23	18U41A0523	HARI KRISHNAN G ANIL
24	18U41A0524	KANTIMAHANTHI SOWNDARYA
25	18U41A0525	KANURU HEMANTH
26	18U41A0526	KARRI PELSEA
27	18U41A0527	KONATHALA SRAVANI
28	18U41A0528	KONATHALA SRI PADMA HRUSHIKESH
29	18U41A0529	KURMADASU MAHESWARI
30	18U41A0530	MADDALA J V S SHIVANI
31	18U41A0531	MALLA GARISHMA
32	18U41A0532	MALLA KUSHAL MANOHAR
33	18U41A0533	MEDISETTI TEJASRI
34	18U41A0534	MEDISETTY RAMYA SREE
35	18U41A0535	MOLLETI MOUNIKA
36	18U41A0536	NAKKA HEMA
37	18U41A0537	THOTA SAI HARIKA
38	18U41A0538	ADARI KOMALI
39	18U41A0539	PAPPALA DHARANI
40	18U41A0540	PASALA RUCHITHA
41	18U41A0541	PATHIVADA PARAMESWARI
42	18U41A0543	POLAMARASETTY BHAVANA
43	18U41A0544	PURAM KEERTHI CHANDANA

44	18U41A0545	RAGULA SWARUPA
45	18U41A0546	REDDY LOHIT KUMAR
46	18U41A0547	REDDY THARUN
47	18U41A0548	SARAGADAM HARI SHANKAR
48	18U41A0549	SHEIK RAJEYA
49	18U41A0550	SIRIGIRISETTY YASODHA
50	16U41A0544	L. SHANMUKH
51	16U41A0586	S. BHANU PRAKASH
52	17U41A0545	NAGIREDLA TEJASWI
53	18U41A0551	SUNDARAPU SAI DEEPTHI
54	18U41A0552	PEDAPUDI SIRISHA
55	18U41A0553	BEELA DHARANI KUMAR
56	18U41A0554	TIRUNAGARI MANOJ SWAMY
57	18U41A0555	VADREVU SREE KRISHNA GAYITHRI
58	18U41A0557	YALLAPU NIRISHA DEVI
59	18U41A0558	YEDURADA JASWANTH KUMAR
60	18U41A0559	YEMISETTY ANANDA RAJU
61	18U41A0560	YENNINTI ESWARA ABHISHEK ARAVIND
62	18U41A0561	YERAMAL BHAGYA SRI
63	18U41A0562	YERAMAL VIJAY DURGA PRASAD
64	18U41A0565	KARANAM CHANDRA SEKHAR
65	18U41A0566	VINNAKOTA VENKATA LALITHA SAI SRILAKSHMI
66	18U41A0567	VUDI RAJESH KUMAR
67	18U41A0568	PULAKANTA VARDHINI
68	18U41A0569	THUMMAPALA CHANDU KUMAR
69	18U41A0570	KOTHAPALLI DEVIKA
70	18U41A0571	NANDAVARAPU ANURADHA
71	18U41A0572	YELLAPU VAMSI
72	18U41A0573	KOTNI SWATHI
73	18U41A0574	MANCHALA SAI SAHITHI
74	18U41A0575	NAGIREDDY KURMA VIJAYA LAKSHMI
75	18U41A0576	GAVARA SAI SUMANTH
76	18U41A0577	BANDARU SAI LIKITHA
77	18U41A0578	ANDHAVARAPU RANJITH
78	18U41A0579	NANDAVARAPU LOVA
79	18U41A0580	MARISETTY VAISHNAVI
80	18U41A0581	RAMADUGU SAI TEJA
81	18U41A0582	KOMATI SRISAHITHI
82	18U41A0583	ORUPULA SAI SUMANTH
83	18U41A0584	GUNTURU RAJA RAMA HARSHITA
84	18U41A0585	MANTHINA GOUTHAM KRISHNA
85	18U41A0586	SAHUKARI NIMISHA
86	18U41A0587	KARRI SRINIVAS
87	18U41A0588	KARANAM TRIVENI

88	19U45A0501	AKKIREDDY MOUNIKA
89	19U45A0502	ANIMIREDDY NEELAVENI
90	19U45A0503	MADDALA RANJIT KUMAR
91	19U45A0504	SURISETTI VINEERTHA LAKSHMI PRASANNA
92	19U45A0505	TERAPALLI SUVARNA
93	19U45A0506	THOTA SANDEEP
94	19U45A0507	ULABALA ANITHA

Classroom

Certificate

Dadi Institute of Engineering & Technology

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Course Completion Certificate

THIS CERTIFICATE IS GIVEN TO

A Hemalatha

FOR SUCCESSFUL COMPLETION OF 6 WEEKS COURSE ON MACHINE LEARNING WITH PYTHON FROM 03/01/2022 TO 12/02/2022

Dr. K. Sujatha
Coordinator

Prof. Dr. Ch. Narasimham
Principal

Sri Dadi Ratnakar
Chairman

VISAKHAPATNAM, ANDHRA PRADESH, DIET.EDU.IN