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 :

Mr. Ch.Dinesh,
Assistant Professor, CSE Department
Dadi Institute of Engineering & Technology

Duration :

6 Weeks : (20/08/2018 – 28/9/2018)

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	16U41A0106	KORIBILLI ANIL KUMAR	CIVIL
2	16U41A0113	VIYYAPU BHASKAR RAO	CIVIL
3	17U45A0101	ALLA BABA AJAY	CIVIL
4	17U45A0111	GEDUTHURI RAMYA	CIVIL
5	17U45A0147	SURISETTY JYOTHI	CIVIL
6	16U41A0206	VEGI MOUNIKA	EEE
7	17U45A0237	PITTA KISHORE	EEE
8	17U45A0243	SHAIK SHARIF	EEE
9	17U45A0260	VANAM VINAY	EEE
10	16U41A0401	A PRASANTHI DEEPTHI SANKERTHANA	ECE
11	16U41A0407	GUDIMETLA SATTI REDDY	ECE
12	16U41A0415	KOMMI MADHURI PRIYA	ECE
13	16U41A0421	PAILA BHANU PRASAD	ECE
14	17U45A0403	BODDEDA NAGENDRA	ECE
15	17U45A0407	GANESH SAI KANDREGULA	ECE
16	17U45A0422	YALAGA MAHESWARA RAO	ECE
17	16U41A0510	BHEEMARASETTY ANUSHA	CSE
18	16U41A0514	CHEKURI JYOSHNA DEVI	CSE
19	16U41A0530	KAMAKA KARTHIKA PAVANI	CSE
20	16U41A0572	SINIVARAPU BHAVANA	CSE
21	16U41A05A0	NETHI SRIMANTH	CSE
22	16U41A05C2	LOLUGU NAVEEN CHAKRAVARTHI	CSE
23	16U41A05D1	JAGE RAJU	CSE
24	17U41A0102	KARE GOVINDU	CIVIL
25	18U45A0101	BODDEDA PRAHARSHITHA	CIVIL
26	18U45A0131	BASANABOINA DEVI	CIVIL
27	18U45A0148	MANEPALLI SAI KUMAR	CIVIL
28	17U41A0205	KASIRAJU SRINIVAS	EEE
29	17U41A0212	PILLA GANGADHAR	EEE
30	18U45A0205	CHADARAM DURGA VENKATESH	EEE
31	18U45A0219	PADALA MURALI SHANKAR	EEE
32	18U45A0238	DADI MADHAN KUMAR	EEE
33	18U45A0265	ALLA ROYAL PREM	EEE
34	17U41A0413	D. SEETARAMAMURTHY	ECE

35	17U41A0415	GANDIBOYANA SAI GANESH	ECE
36	17U41A0423	B. DEEPAK SRINIVAS KUMAR	ECE
37	17U41A0436	MURUKURTI ASHOK	ECE
38	17U41A0447	PREETI SAH	ECE
39	17A61A0429	MUDDA SAI PRIYA	ECE
40	17U41A0468	KARRI MOUNIKA	ECE
41	18U45A0405	NADIGATLA ARUNASREE	ECE
42	18U45A0416	KANTAPUREDDI KUSUMA	ECE
43	18U45A0432	RAJANA HYMA	ECE
44	18U45A0433	VEGI VENKATA SAI PREMIKA	ECE
45	17U41A0501	ADARI ASWANI CHOONANDA	CSE
46	17U41A0511	BUDDHA ROSHINI SANGEETHA	CSE
47	17U41A0514	ERRAMSETTY TEJASRI	CSE
48	17U41A0522	JALDU AMURATHAVALLI	CSE
49	17U41A0533	KOLASANI TEJASWANI	CSE
50	17U41A0550	POLNATI LALITHA	CSE
51	17U41A0554	TIRIGISETTI UPENDRA	CSE
52	17U41A0558	VILLURI HIMA PRIYA	CSE
53	17U41A0559	YELLAPU DHARANI	CSE
54	17U41A0560	YELLAPU JYOTHSNA	CSE
55	17A61A0548	VELGA AKHILESWARI	CSE
56	17A61A0534	NAGIREDDI MAHESWARI	CSE
57	17U41A0561	SAKINAPALLI PRIYANKA	CSE
58	17U41A0566	CHINTA NAVYA SREE	CSE
59	17U41A0573	KOLLI SRUTHI	CSE
60	17U41A0581	MADDALA RAMESH	CSE
61	17U41A0589	OMMI KIRANMAYI	CSE
62	17U41A05A3	VIYYAPU SIRISHA	CSE
63	17U41A05A4	MOLLI REVATHI SAI CHANDU	CSE
64	18U45A0501	BUDDHA DIVYA DURGA	CSE
65	18U45A0502	JUTTIKA OM SAI	CSE
66	18U45A0503	ILLAPU RAMU	CSE
67	18U45A0504	SODABATTULA PAVAN KALYAN	CSE
68	18U45A0505	KANDREGULA VANAJA	CSE
69	18U45A0506	KILLADI SAI SAMPATH	CSE
70	18U45A0507	VELUGULA BHANU	CSE

Classroom

Certificate:

Dadi Institute of Engineering & Technology
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Course Completion Certificate

THIS CERTIFICATE IS GIVEN TO

Viyyapu Sireesha

FOR SUCCESSFUL COMPLETION OF 6 WEEKS COURSE ON MACHINE LEARNING WITH PYTHON FROM 20/8/2018 TO 28/9/2018

Dr. K. Sujatha
Coordinator

Prof. Dr. Ch. Narasimham
Principal

Sri Dadi Ratnakar
Chairman

VISAKHAPATNAM, ANDHRA PRADESH, DIET.EDU.IN