

# 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

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## MACHINE LEARNING USING PYTHON LIBRARY

### Course Instructor :

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

### Duration :

6 Weeks : (01/01/2021 – 25/02/2021)

### 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 all 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	19U41A0501	ADARI RAVI SHANKAR
2	19U41A0502	ALA VENKATA SOUMYA
3	19U41A0503	ANNAPUREDDY SAMARA SIMHA REDDY
4	19U41A0504	PETRUM HARSHA VARDHAN
5	19U41A0506	BODDEDA REECHA
6	19U41A0507	CHANDANA DURGA PRASAD
7	19U41A0508	CHATTI LAKSHMI PRIYANKA
8	19U41A0509	CHAVA SAI RESHMA
9	19U41A0510	CHINTALAPUDI VARAHA VENKATA ADITYA LAHAR
10	19U41A0511	DABBIRU SAI KIRAN
11	19U41A0512	DADI BALASREE BHARGAVI
12	19U41A0513	DADI ROSHINI
13	19U41A0514	DADI THANUSHA
14	19U41A0515	DONKA GANGA BHAVANI
15	19U41A0516	DUKKA RAJSEKHAR REDDY
16	19U41A0517	GAMINI NIVAS
17	19U41A0518	GATTEM YUKTHA MUKHI
18	19U41A0519	GEDELA BHAVANA RESHMA
19	19U41A0520	GONNABATHULA PAVAN SAI
20	19U41A0521	GUDIPATI SRILASYA
21	19U41A0522	GUTTHIKONDA LOKESH
22	19U41A0523	JAYANTHI SAI BHARGAVI
23	19U41A0524	JYOTHULA PREETHI PRASUNA
24	19U41A0525	KADIMI LIKHITHA SAI
25	19U41A0526	KALAGA PRIYA
26	19U41A0527	KALLLA SHYAM KUMAR
27	19U41A0528	KANDIKUPPA ANJANA LOKESH
28	19U41A0529	KANDREGULA YOGITHA
29	19U41A0530	KANISSETTI MEGHANA
30	19U41A0531	KARANAM SOMESWARI
31	19U41A0532	KARANAM VISHAL
32	19U41A0533	KARRI DIVYA
33	19U41A0534	KARRI VARUN KUMAR
34	19U41A0535	KATTAMURI SATYAVATHI
35	19U41A0536	KATTAMURI VSN SAILAJA
36	19U41A0537	KOLLI SATISH
37	19U41A0538	KOGANTI JAI VENKATA PRAKASH
38	19U41A0539	KOLASANI LOKESH
39	19U41A0540	KOLLI VENNELA
40	19U41A0541	KONA PRASANTH


41	19U41A0542	KONATHALA JASWANTH ADITYA
42	19U41A0543	KONATHALA LOHITHA
43	19U41A0544	KONATHALA MOWNIKA
44	19U41A0545	KOPPAKA SRI GANESH
45	19U41A0546	KOTTAPU BHANU PRAKASH
46	19U41A0547	KURMADASU SUPRIYA
47	19U41A0548	MADAGALA NAVEEN
48	19U41A0549	MALLA YOGITHA
49	19U41A0550	MARADAPA BHARGAVI
50	19U41A0551	MOHAMMED ADIL RAZA QUADRI
51	19U41A0552	VISWANADHAPALLI SHALEM
52	19U41A0553	MUDDA SAI CHANDRA
53	19U41A0554	MUDDADA RAMYA
54	19U41A0555	NAKKA AKHILA SAI
55	19U41A0556	NAMA JOSHUA PRUDHVI RAJ
56	19U41A0557	NECHUVALA SANTHI KIRAN
57	19U41A0558	NEELAPU LIVI ADITYA REDDY
58	19U41A0559	SARIDI SOWMYA
59	19U41A0560	TANKALA AMRUTHA SAI
60	19U41A0561	ARI HEYSHNIKA
61	19U41A0562	DHAVALA KAMESHWARI SAI ROSHINI
62	19U41A0563	NOTLA GOVINDA RAJU
63	19U41A0564	PALAKA HARIKA
64	19U41A0565	PANDURI GAYATHRI
65	19U41A0566	PASUMARTHY PADMAVATHI
66	19U41A0567	PERUMAKOVELA SOWMYA
67	19U41A0569	POLIMERA HYNDHAVI SAI SANTHOSHI
68	19U41A0570	R NARSHIMA NAIDU
69	19U41A0571	RAYI SARATH KUMAR
70	19U41A0572	RONGALI DHANASRI
71	19U41A0573	SADHANALA DURGA SANDEEP
72	19U41A0574	SADHANALA RAMA LASYA DEVI
73	19U41A0575	SAI PALLAVI MANAPURAM
74	19U41A0576	SARIPALLI YOGAMOUNIKA
75	19U41A0577	SARVASUDDI RAVALI
76	19U41A0578	SHEIK FATHIMA
77	19U41A0579	SIRIMISSETTY REKHA
78	19U41A0580	SUNDARAPU KIRAN KUMARI
79	19U41A0581	SURISSETTI DINESH
80	19U41A0582	TABASSUM
81	19U41A0583	MOLLETI HANEESHA
82	19U41A0584	TARRA YASHODA

83	19U41A0585	TENTU TARAKESH NAIDU
84	19U41A0586	THUMMA RAVINDRANATH TAGORE
85	19U41A0587	TIRUMALARAJU SAI SUREKHA
86	19U41A0588	UGGINA BHAVANI
87	19U41A0589	VANTAKU SWATHI
88	19U41A0590	VEDHURI JASWANTH SAI
89	19U41A0591	VEDULA KAMESWARI SAI LAKSHMI SNEHA
90	19U41A0592	VEGI MOHAN
91	19U41A0593	VELAGA KALYANI
92	19U41A0594	VELAGA TEJASRI MANASA
93	19U41A0595	VELPULA VIJAYA KEERTHI
94	19U41A0596	VELPULA VINAYA KRUTHI
95	19U41A0597	VUJJI SRUJANA
96	19U41A0599	YALAMANCHILI MANIKANTA
97	19U41A05A0	YEGIREDDY JAGADEESH
98	19U41A05A1	YELLAPU MEGHAN
99	19U41A05A2	YERRAMSETTI NAGA MANI
100	19U41A05A3	DWARAPUDI KUSWANTH SIVA
101	19U41A05A4	GUDURU DHARANI SAI JANAKI RAMARAJU
102	19U41A05A5	K. RAKESH
103	19U41A05A7	MALLA MOUNIKA
104	19U41A05A8	MATTURTHI PRASUNA
105	19U41A05A9	BHEEMISETTI DEVA MANOJ
106	19U41A05B0	VUPPALA GAYATHRI
107	19U41A05B1	PEDDINTI JAYA LAKSHMI
108	19U41A05B2	RAPETI PAVAN KUMAR
109	19U41A05B3	SENAPATHI ESWARKUMAR
110	19U41A05B4	TEKKALI MONISH
111	19U41A05B5	THOTA DILEEP NAIDU
112	19U41A05B6	KODUKULA SRIKAR NARAYAN
113	19U41A05B7	M DURGA PRASAD
114	19U41A05B8	THOTA VENKATA SAI
115	19U41A05B9	BANDARU MOUNIKA PADMAJA
116	20U45A0501	ALLA HEMANTH CHANDRA SEKHAR
117	20U45A0502	BODDETI HARITHA
118	20U45A0503	SURISETTI PRIYANKA
119	20U45A0504	VEGI MANOJ

## Classroom



## Certificate:



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## Course Completion Certificate

THIS CERTIFICATE IS GIVEN TO

# ARI HEYSHNIKA


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FOR SUCCESSFUL COMPLETION OF 6 WEEKS COURSE ON  
MACHINE LEARNING WITH PYTHON FROM 01/01/2021 TO  
25/02/2021




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**Dr. K. Sujatha**  
Coordinator



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**Prof. Dr. Ch. Narasimham**  
Principal



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**Sri Dadi Ratnakar**  
Chairman

VISAKHAPATNAM, ANDHRA PRADESH, DIET.EDU.IN