



# **DADI INSTITUTE OF ENGINEERING & TECHNOLOGY**

(Approved by A.I.C.T.E., New Delhi & Affiliated to JNTUK, Kakinada)

**A NAAC Accredited Institute**

An ISO 9001:2008; ISO 14001:2004 & OHSAS 18001:2007 Certified Institution  
NH-16, Anakapalle – 531002, Visakhapatnam, A.P.

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## **CIRCULAR**

Anakapalle

Dt: 25-10-2022

Department of Computer Science and Engineering is hereby informed that, in view of the feedback received from III B.Tech students of CSE branch regarding skill enhancement and to improve the expertise of students in Machine Learning with Python, HOD is advised to depute a faculty from CSE to design and develop a suitable course structure in line with advanced topics of Machine Learning with python for working on real time applications III B.Tech. students of CSE branch with over 30 working hours. Please ensure that this Add-on course helps them to understand the basics of Machine Learning with Python . Make arrangements to deliver the course from next week onwards.

**PRINCIPAL**



# 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  
An ISO 9001:2015, ISO 14001:2015 & ISO 45001: 2018

Visakhapatnam-531002, Andhra Pradesh, diet.edu.in

Department of Computer Science and Engineering  
Conducted Certification Course on  
“Machine Learning with Python”

01-11-2022 to 30-11-2022

Course Instructor

R.Swapna

Assistant Professor, Dept of CSE

Venue: Blended Mode

## **About the Institute:**

Dadi Institute of Engineering and Technology is a top ranked Engineering and Management Institute affiliated to Jawaharlal Nehru Technological University, Kakinada. The Institute is NAAC Accredited, ISO Certified and also associated with many professional bodies in the field of Engineering, Technology and Management.

It strives to promote the highest standards among the students and enable them to Build a New World. Dadi Institute of Engineering & Technology is distinctive among institutions of higher learning. Founded in 2006 by Sri Dadi Veerabhadra Rao, an academician and former Minister as the first multicultural and co- educational college in Anakapalle which admits only academically promising students.

## **About CSE Department:**

The Department of CSE was established in the year 2006. It offers B.Tech. Program with an initial intake of 180. It also offers M.Tech. Program in Computer Science and Engineering. The department has good infrastructural facilities with full fledged laboratories equipped with adequate hardware and software. The faculty members are actively involved in research and are publishing papers in reputed national and international journals/conferences.

## **About the Course:**

The Machine Learning with Python course aims to teach students/course participants some of the core ideas in machine learning, data science, and AI that will help them go from a real-world business problem to a first-cut, working, and deployable AI solution to the problem. This Python-based Machine Learning training course is designed to help you grasp the fundamentals of machine learning. It will provide you a thorough knowledge of Machine Learning and how it works. As a Data Scientist or Machine Learning engineer.

Learn about data exploration and machine learning techniques such as supervised and unsupervised learning, regression, and classifications, among others. Experiment with Python and built-in tools like Pandas, Matplotlib, and Scikit-Learn to explore and visualize data. Regression, classification, clustering, and sci-kit learn are all sought-after machine learning abilities to add to your skills and CV.



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## Computer Science and Engineering

### IBM Python for Data Science

#### **Course Instructor:**

R.Swapna

Assistant Professor, CSE Department

Dadi Institute of Engineering & Technology

#### **Duration:**

4 Weeks: (01/11/2022 – 30/11/2022)

#### **Overview & Need for the Course:**

Students are instructed to learn the basics of Machine Learning with Python in this course. However they need to learn some advanced topics for working on real time applications. The course covers content required to develop basic projects on Machine Learning with Python. Learn about data exploration and machine learning techniques such as supervised and unsupervised learning, regression, and classifications, among others.

#### **Course Objective:**

To Learning basic concepts of various machine learning methods is primary objective of this course. This course specifically make student able to learn mathematical concepts, and algorithms used in machine learning techniques for solving real world problems and developing new applications based on machine learning.

## **Course Outcomes:**

After completion of this course, student will be able to:

- Understand about the roles & responsibilities that a Machine Learning Engineer plays
- Python may be used to automate data analysis
- Explain what machine learning is
- Work with data that is updated in real time
- Learn about predictive modelling tools and methodologies
- Discuss machine learning algorithms and how to put them into practice
- Validate the algorithms of machine learning
- Explain what a time series is and how it is linked to other ideas
- Learn how to conduct business in the future while living in the now
- Apply machine learning techniques on real world problem or to develop AI based application
- Analyze and Implement Regression techniques
- Solve and Implement solution of Classification problem
- Understand and implement Unsupervised learning algorithms

## **Course Contents:**

- **Python for Machine Learning**

Introduction of Python for ML, Python modules for ML, Dataset, Apply Algorithms on datasets, Result Analysis from dataset, Future Scope of ML.

- **Introduction to Machine Learning**

What is Machine Learning, Basic Terminologies of Machine Learning, Applications of ML, different Machine learning techniques, Difference between Data Mining and Predictive Analysis, Tools and Techniques of Machine Learning.

- **Types of Machine Learning**

Supervised Learning, Unsupervised Learning, Reinforcement Learning. Machine Learning Lifecycle.

- **Supervised Learning : Classification and Regression**

Classification: K-Nearest Neighbor, Decision Trees, Regression: Model Representation, Linear Regression.

- **Unsupervised and Reinforcement Learning**

Clustering: K-Means Clustering, Hierarchical clustering, Density-Based Clustering.

# LIST OF PARTICIPANTS

## DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

### CSE-AI&ML

S.No.	HT.No	StudentName
1	20U41A4201	KOLNATI VENKATA KASI RAM SAI
2	20U41A4202	MARADANA INDU
3	20U41A4203	ADARI ROJA
4	20U41A4204	MAJJI SWAROOPA
5	20U41A4205	GOLLA JYOTHI SREE SATYA
6	20U41A4206	LAKKU VAMSI PRIYA
7	20U41A4207	MALLARAPU HARIKA
8	20U41A4208	MANTRI JAYALAKSHMI
9	20U41A4209	UMMINI BALA NOOKARATNAM
10	20U41A4210	GOLTI DHANA LAKSHMI
11	20U41A4211	KAICHARLA LAVANYA
12	20U41A4212	SABBI PRAVALLIKA
13	20U41A4213	MALLA KEERTHI VENNELA
14	20U41A4214	BUDDHA GUNA SEKHAR
15	20U41A4215	PENTAKOTA JYOSHNA
16	20U41A4216	DONDAPATI EVANS DAVID
17	20U41A4218	MALLA TARUN KUMAR
18	20U41A4219	CHERUKUPALLI SRI SAI GNANA DEEPAK
19	20U41A4220	JAGANNADHAM DURGA PRASAD
20	20U41A4221	GONTHINA DIVYA
21	20U41A4222	KANNURU SURYASATHVIKA
22	20U41A4223	SANABOYINA SRINIVASU

23	20U41A4224	ABBINENI VEERA VENKATA SATYA TANIYA
24	20U41A4225	PALAKA LEELA NOOKA RAM SAGAR
25	20U41A4226	PENTAKOTA SIRISHA
26	20U41A4227	MEADAPATI MOUNIKA PRATHYUSHA
27	20U41A4228	TANAKALA RAESHMA SREE
28	20U41A4229	PAILA RAVIKIRAN REDDY
29	20U41A4230	MANEPALLI LAKSHMI PRASANNA
30	20U41A4231	MUDUNURU SUJITH VARMA
31	20U41A4232	KILLI MOHAN KUMAR
32	20U41A4234	NAKKA SIVA NAGA RAHI
33	20U41A4235	SARAGADAM SAI DRUTHI
34	20U41A4236	KASAVARAJU VARAHA NARASIMHA DURGA SAIKIRAN
35	20U41A4237	SANEPALLI PRASANTH REDDY
36	20U41A4238	DODDI BHARATH
37	20U41A4239	KARRI SREEJA
38	20U41A4240	UGGINA MOHAN SAI
39	20U41A4241	ARYAN SAJEEV VARMA
40	20U41A4242	KARANAM NARESH
41	20U41A4243	KONATHALA SUMAN
42	20U41A4244	SUNDARAPU VENKATA SAI
43	21U45A4201	GURUGUBELLI SANTOSH KUMAR
44	21U45A4202	NAGIREDDY KIRAN KUMAR
45	21U45A4203	NEMALA PRAVEEN
46	21U45A4204	GUDIPUDU HEMANTH KUMAR
47	21U45A4205	GARUDHACHALAM SAI DINESH



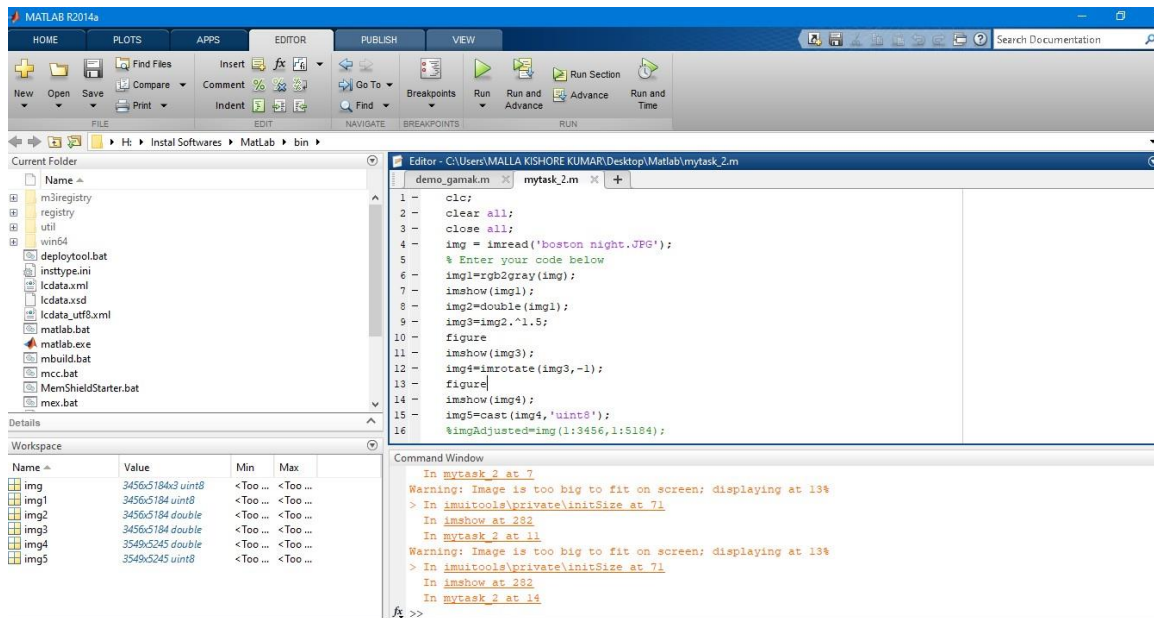
## CSE-DATA SCIENCE

S.No.	HT.No	StudentName
1	20U41A4401	POTHALA DURGA LAKSHMI SREYA
2	20U41A4402	BOUROTHU BHANU PRAKASH
3	20U41A4403	KALLA ANJANI SAI PARVATHI
4	20U41A4404	PONDRI SURYA SIVA
5	20U41A4405	ANAPARTHI AKHILA
6	20U41A4406	DADI DIVYA LAKSHMI
7	20U41A4407	SIGATAPU UDAY KIRAN
8	20U41A4408	SURISSETTY POORNASREE
9	20U41A4409	AMALAKANTI TEJA VENKATA SAI SONY
10	20U41A4410	DODDI SRI HARI SAI KUMAR
11	20U41A4411	URIKITI YERRAJI PAVAN
12	20U41A4412	AKKENA NAVYA SRI
13	20U41A4413	VANKA SRI VYSHNAVI
14	20U41A4414	UDAY KUMAR CHINNI
15	20U41A4415	BHOGAVILLI ROSHINI
16	20U41A4416	ESARAPU RAMU
17	20U41A4417	GORLI KANAKA DEVI
18	20U41A4418	NEELAPU BALAJI YASODYA RAMKRISHNAREDDY
19	20U41A4419	SABBI MAHA LAKSHMI
20	20U41A4420	MAROJU AMRUTHA
21	20U41A4421	NAKKA SAILAJA
22	20U41A4422	GOLAGANI KANAKA KRISHNA VAMSI
23	20U41A4423	BADHA SAI SARATH

24	20U41A4424	KOMMANAPALLI SOMA SEKHAR
25	20U41A4425	GUDLA SRAVANTHI
26	20U41A4426	PALLA SASIDHAR
27	20U41A4427	GONNABATHULA SHANMUKHA NAIDU
28	20U41A4428	KELLAKA HEMANTH NAGA SAI RAJU
29	20U41A4429	PENTAKOTA SAI KUMAR
30	20U41A4430	ADARI YASASWINI
31	20U41A4431	SAYEEDA FATHIMA
32	20U41A4432	PULAVARTHI NAGA SANTOSH MANIKANTA KUMAR
33	20U41A4433	KARRI BILWA SHANKARAN
34	20U41A4435	ATHIKAMISETTI JAIRAM
35	20U41A4436	MYCHARLA ASHRIT
36	20U41A4437	SENAPATHI MOHAN VAMSI
37	20U41A4439	MAMIDI CHANDANA
38	20U41A4440	JANAPAREDDY SAI NAGA ASRITHA
39	20U41A4441	KOTAGIRI VENKATA SAI CHARAN
40	20U41A4442	ALLA TEJA VARAPRASAD
41	20U41A4443	KORUKONDA SAHITHI
42	21U45A4401	POLIMERA BALAJI
43	21U45A4402	SENAPATHI NAGA LAKSHMI
44	21U45A4403	KANITHI ARAVIND
45	21U45A4404	GANIVADA KRISHNA KIRITI SANATHAN
46	21U45A4405	VEERANKI SRI HARI VITTAL
47	21U45A4406	SARAGADAM BHANU PRASAD
48	21U45A4407	KETTI PRASAD

**Total No.of Students Participated:95**

## Classroom:



The screenshot displays the MATLAB R2014a environment. The main window is divided into several panes:

- Current Folder:** Shows the file structure of the current directory, including folders like 'registry', 'util', and 'win64', and files like 'deploytool.bat', 'insttype.ini', 'lcddata.xml', 'lcddata.xsd', 'lcddata\_utf8.xml', 'matlab.bat', 'matlab.exe', 'mbuild.bat', 'mcc.bat', 'MemShieldStarter.bat', and 'mex.bat'.
- Workspace:** A table listing variables in the workspace. The variables are 'img', 'img1', 'img2', 'img3', 'img4', and 'img5', each with its value, data type, and dimensions.
- Editor:** Contains a script named 'mytask\_2.m' with the following code:

```
1 - clear;
2 - clear all;
3 - close all;
4 - img = imread('boston_night.JPG');
5 - % Enter your code below
6 - img1=rgb2gray(img);
7 - imshow(img1);
8 - img2=double(img1);
9 - img3=img2.^1.5;
10 - figure
11 - imshow(img3);
12 - img4=imrotate(img3,-1);
13 - figure;
14 - imshow(img4);
15 - img5=cast(img4,'uint8');
16 - %imgAdjusted=img(1:3456,1:5184);
```
- Command Window:** Shows the execution output, including warnings about image size and the current line of execution in the script.

Name	Value	Min	Max
img	3456x5184x3 uint8	<Too ...	<Too ...
img1	3456x5184 uint8	<Too ...	<Too ...
img2	3456x5184 double	<Too ...	<Too ...
img3	3456x5184 double	<Too ...	<Too ...
img4	3549x5245 double	<Too ...	<Too ...
img5	3549x5245 uint8	<Too ...	<Too ...



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**Four Weeks Training Program  
On  
IBM Python for Data Science  
(01-11-2022 to 30-11-2022)**

**CERTIFICATE OF PARTICIPATION  
IS PRESENTED TO**

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for his/her successful participation in the Four Weeks Training Program On machine Learning with Python Organized by Department of CSE, DIET.

**HOD  
CSE**

**Principal  
DIET**

**Chairman  
DIET**

**Feedback form:**