

DADI INSTITUTE OF ENGINEERING & TECHNOLOGY



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

Electronics and Communications Engineering

MatLab for Signal Processing

Course Instructor:

Malla Kishore Kumar
Assistant Professor, ECE Department
Dadi Institute of Engineering & Technology

Duration:

4 Weeks: (26/11/2018 – 21/12/2018)

Overview & Need for the Course:

Students are instructed to learn the basics of MatLab 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 MatLab, in signal processing domain.

Course Objectives: To

- Understand the basic data operations in MatLab
- Provide knowledge on built in commands.
- Develop the skill required to handle large amounts of data.
- make the student handling real time sensor data.

Course Outcomes:

By the end of the course, the student will be able to

- Handle matrix operations.
- Generate and manipulate data as per the requirement.
- Develop real time projects using MatLab.

Requirements

- Basic Knowledge on C-Programming.
- A Computer with an Internet Connection.

Course Contents:

1. Course overview
2. Command
3. MatLab desktop and editor
4. Vector and matrix
5. Indexing into and modifying arrays
6. Array calculations
7. Calling function
8. Obtaining help
9. Plotting data
10. Logical arrays
11. Introducing Signal Processing Tool Box
12. Introducing Image Processing Tool Box
13. Programming
14. Final project
15. Conclusion

List of Participated students

S.NO	HT NO	NAME
1	16U41A0401	A PRASANTHI DEEPTHI SANKERTHANA
2	16U41A0402	BOMMA SANDEEP
3	16U41A0403	BUDDHA PRATHYUSHA
4	16U41A0404	BVV S SANTOSH ANUDEEP
5	16U41A0405	DADI ANUSHA
6	16U41A0406	DULLA MANISHA
7	16U41A0407	GUDIMETLA SATTI REDDY
8	16U41A0408	JAGARAPU RAJU
9	16U41A0409	JAMI KANAKARAJU
10	16U41A0410	JYOTHULA ANIRUDH
11	16U41A0411	KALLA ANITHA
12	16U41A0412	KAMIREDDY YAMINI
13	16U41A0413	SABBAVARAPU TEJA
14	16U41A0414	KODI DEVI
15	16U41A0415	KOMMI MADHURI PRIYA
16	16U41A0416	KORIBILLI ANUSHA
17	16U41A0417	KOTA KRISHNA PRIYA
18	16U41A0418	M MOHAMMAD ZEESHAN ALI

19	16U41A0419	MUDDADA HEMALATHA
20	16U41A0420	M VENKATA RAMA PRAKASH
21	16U41A0421	PAILA BHANU PRASAD
22	16U41A0422	PANDURU VASU
23	16U41A0423	KUNKALAGUTLA RESHMA
24	16U41A0425	PUNTHOTAM AJAY SELUSH
25	16U41A0426	RAYAVARAPU REVATHI
26	16U41A0427	SARIVISETTI MAHESH
27	16U41A0428	S DEEPIKA ALEKHYA
28	16U41A0429	SIRASAPALLI SANDHYA
29	16U41A0430	SOMU JYOTHI
30	16U41A0431	SRINADHU SRIKANYA
31	16U41A0432	SURISSETTY BHAVYA BHARGAVI
32	16U41A0433	SURISSETTY PRADEEPKUMAR
33	16U41A0434	SWETHA MEENA DEVI MALLA
34	16U41A0435	UNDURU RAJKUMAR
35	16U41A0436	VAJRAPU SAISRUJANA
36	16U41A0437	VALLAMPATI GOWTHAMI
37	16U41A0438	VALLAMPATI RAMA LAKSHMI
38	16U41A0439	YELLAPU ARUNA
39	16U41A0440	YERRA KURMA RAJU
40	16U41A0441	MADDALA BHAVANA
41	16U41A0442	PYLA SRUJITHA
42	16U41A0443	GOGADA BHAGYA LAKSHMI
43	16U41A0444	T KANAKAMAHALAKSHMI
44	16U41A0446	NAGAMBOINA SREEKANTH
45	16U41A0447	RAKOTI SAILAJA
46	16U41A0448	PUTCHAKAYALA PREETHE
47	16U41A0449	BODU PRATHYUSHA
48	16U41A0450	PATRAPALLI MADHAVI
49	16U41A0451	BODDU DURGA PRASAD
50	16U41A0452	MD WASIM AKTHER
51	16U41A0453	KARANAM RAJESH
52	17U45A0401	AYINAPARTHI KUMAR
53	17U45A0402	BANDARU SAILAJA
54	17U45A0403	BODDEDA NAGENDRA
55	17U45A0404	DASARI JYOTHSNA
56	17U45A0405	DODDI MAHESWARI
57	17U45A0406	GANDREDDI TRINADH
58	17U45A0407	GANESH SAI KANDREGULA
59	17U45A0408	GOKIVADA ESWARA NAGA ALIVENI

60	17U45A0409	KANDALAM UGANDHAR
61	17U45A0410	KARRI SWETHA
62	17U45A0411	KEELUPAKA GANESH LAKSHMAN VIKAS
63	17U45A0412	MASARAPU MANI
64	17U45A0413	MONDI SAI KIRAN
65	17U45A0414	NAGISETTY GUNA GOPI SURENDRA
66	17U45A0415	NANEPALLI JYOTHI
67	17U45A0416	PARUPALLI RAJESH
68	17U45A0417	PUDI VENKATA LAKSHMI
69	17U45A0418	VIYYAPU REVATHI
70	17U45A0419	SUNKARA GANESH
71	17U45A0420	TADI SAI SREE HARSHA
72	17U45A0421	VASANTHA PRIYANKA
73	17U45A0422	YALAGA MAHESWARA RAO
74	17U45A0423	YEDLA PRASADNAIDU

Total: 74

Classroom:

The screenshot displays the MATLAB R2014a environment. The main window is the Editor, showing a script named 'mytask_2.m' with the following code:

```

1 - clc;
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(1:3456,1:5104);

```

The Command Window shows the execution output:

```

> In mytask_2 at 7
Warning: Image is too big to fit on screen; displaying at 13%
> In imuitools\private\initSize at 71
In imshow at 282
> In mytask_2 at 11
Warning: Image is too big to fit on screen; displaying at 13%
In imuitools\private\initSize at 71
In imshow at 282
In mytask_2 at 14
>>


```

The Workspace pane shows the following variables:

Name	Value	Min	Max
img	3456x3184x3 uint8	<Too ...	<Too ...
img1	3456x3184 uint8	<Too ...	<Too ...
img2	3456x3184 double	<Too ...	<Too ...
img3	3456x3184 double	<Too ...	<Too ...
img4	3549x3245 double	<Too ...	<Too ...
img5	3549x3245 uint8	<Too ...	<Too ...

Certificate

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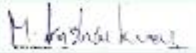

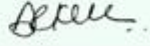


Course Completion Certificate

THIS CERTIFICATE IS GIVEN TO

BOMMA SANDEEP

For Successful completion of 4 week course on MatLab for
Signal Processing from 26/11/2018 to 21/12/2018.

 Mr M Kishore Kumar Coordinator	 Prof. Dr. Ch. Narasimham Principal	 Sri Dadi Ratnakar Chairman
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