

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

MatLab for Signal Processing

Course Instructor:

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

Duration:

4 Weeks: (23/11/2020 – 24/12/2020)

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

18U41A0401	ADARI VASANTHA
18U41A0402	ANAPAREDDI RAM JAGAN
18U41A0403	VECHALAPU BINDU
18U41A0404	BARNIKANA MARAJU
18U41A0405	BEJAWADA HARI KRISHNA
18U41A0406	BODDEDA REVATHI
18U41A0407	BOTTA BALAJI
18U41A0408	SAI SANTHOSH KUMAR CHARAKAPU
18U41A0409	CHADARAM PRASAD
18U41A0412	PIRADULA SURESH
18U41A0413	SANDRANA ROOPA
18U41A0414	JOGA NAGADEMULLU
18U41A0415	KAPU YAMINI
18U41A0416	KOILADA CHANAKYA
18U41A0417	KONETI KAVYA
18U41A0418	KUKKARA VIJAYA MANASA

18U41A0419	MADAGALA SOUJANYA
18U41A0420	MADDABATTULA PRATYUSHA JYOTHI
18U41A0421	MALLA DAKSHAYANI
18U41A0422	MALLA MOUNIKA NAGA LAKSHMI
18U41A0423	MATHALA MADHAVI
18U41A0424	PAKKI SATYA LASWIK
18U41A0425	PAMU CHANDRA KALA
18U41A0426	PENTAKOTA SWARJAN
18U41A0427	PUDI HARISH
18U41A0428	RONGALI LATHA
18U41A0429	ROUTHULAPUDI LALITHA LAKSHMI S PRAVEENYA
18U41A0430	SAKA NAGASAI AMRUTHA
18U41A0431	SAMAYAMANTHULA GUNA
18U41A0432	SANAPATHI GANESH
18U41A0433	SEERAMSETTI TEJASRI
18U41A0434	VELURI NAGA SAI ROHINI KUMAR
18U41A0435	YANAPARTHI DURGALAKSHMI
18U41A0436	DEVADA JESWANTH REDDY
18U41A0437	JUTTUKA TALLABABU
18U41A0438	SIRASAPALLI HARSHITA
18U41A0439	YELAMARTHI SAI SURENDRA
18U41A0440	CHENNA HARIKA
18U41A0442	KANDREGULA MANIKANTANAIDU
18U41A0443	REDDI SRINIVAS
18U41A0444	DUNGALA DEVI
18U41A0445	MAREDDY AKHILESH
18U41A0446	GANESWARM ABISH
18U41A0447	PANASA JHANSI
18U41A0448	KOLLI SUMANTH

18U41A0449	PENTAKOTA SRIRAMYA
18U41A0450	MADAPATI TRINADH
18U41A0451	BUDDHA BHANU SREE
18U41A0452	GANTA PAVANKUMAR
18U41A0453	GORLE MADHAVI
18U41A0454	MUMMIDISETY SAI SOWJANYA
18U41A0455	MANDAPATI PAVITHRA
18U41A0456	SIRASAPALLI ARUNA
18U41A0457	RAHUL KUMAR
18U41A0458	ADARI BHARGAVI

19U45A0401	ALETI SWAMY
19U45A0402	ANE LOKESH
19U45A0403	BARNIKANA SIRISHA
19U45A0404	BERA SRAVANI
19U45A0406	BOINA PAVANI
19U45A0407	BUDDHA KEDHAR SAI
19U45A0408	CHEVVETI LATHA
19U45A0409	DASU GOWRI
19U45A0410	DODDI AJAY KUMAR
19U45A0411	GADI MAHA LAKSHMI DEVI
19U45A0412	GANTA DURGA BHAVANI
19U45A0413	GUNDARAPU TEJA SRI
19U45A0414	INDALA DHAANA SREELEKHYA
19U45A0415	KADIMISETTY TEJA
19U45A0416	KALINGA THRIVENI
19U45A0417	KANDREGULA MOHAN GANESH
19U45A0418	KANTAPUREDDI LOKESH

19U45A0419	KARRI JAYASRI
19U45A0420	KOBBARI RAJESH
19U45A0421	KODURU MYTRI
19U45A0422	KONAGALLA BHAGYA DHARANI
19U45A0423	KOTAPALLI PAVANI ISHWARYA
19U45A0424	LANKA VENKATA SAI TEJASWINI
19U45A0425	MALLA RAJYA LAKSHMI
19U45A0426	MAMILLAPALLI SAI SHANMUKHA SRINADH
19U45A0427	MEDISETTI MANJU
19U45A0428	NEMALA KUSUMA PRIYA
19U45A0429	PADALA YAMINI
19U45A0430	PEDDADA NIHARIKA
19U45A0431	PILLA REVATHI
19U45A0433	RAMPILLI INDRAJA
19U45A0434	SANAPATI JANAKI
19U45A0435	SENAPATHI JYOTHI
19U45A0436	SIMHADRI MOUNAVI
19U45A0437	TALARI DIVYA
19U45A0438	THUTTA VANI
19U45A0439	VADALA GEETHA BHUVANA
19U45A0440	VELAGA USHA SRI
19U45A0441	VILLURI MOULIKA
19U45A0442	GOMPA MOUNIKA

Total: 96

Classroom:

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

```

1 - clear;
2 - close 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 window shows the following variables:

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	3549x245 double	<Too ...	<Too ...
img5	3549x245 uint8	<Too ...	<Too ...

Certificate

Dadi Institute of Engineering & Technology
 Approved by AICTE & Permanently Affiliated to JNTUK
 NAAC Accredited Institute & Inclusion under Section 2(f) & 12(B) of the UGC Act

Course Completion Certificate

THIS CERTIFICATE IS GIVEN TO

ADARI VASANTHA

For successful completion of 4 week course on MatLab for signal processing from 23/11/2020 to 24/12/2020.


Mr M Kishore Kumar
 Coordinator


Prof. Dr. Ch. Narasimham
 Principal


Sri Dadi Ratnakar
 Chairman

VISAKHAPATNAM, ANDHRA PRADESH, DIET.EDU.IN