



**J.B. INSTITUTE OF ENGINEERING AND TECHNOLOGY**

(UGC AUTONOMOUS)

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## **Department of Electronics and Communications Engineering**

### **THREE-DAY WORKSHOP**

**On**

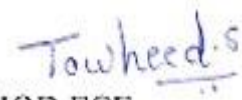
**"DIGITAL SIGNAL PROCESSING USING MATLAB"**


**04-10-2021 to 06-10-2021**

### **Circular**

This is to inform all III B.Tech students that, A Three day Workshop on "DIGITAL SIGNAL PROCESSING USING MATLAB" is scheduled from 04-10-2021 to 06-10-2021. Faculties handling classes for 3<sup>rd</sup> year students should also attend.

  
Co ordinator  
B. Sowmya

  
HOD ECE  
Towheed Sultana

Copy to   
Class In charges



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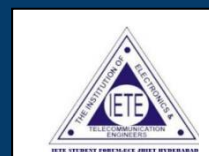
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# 3 Day - Workshop on Signal Processing using MATLAB

04-10-2021 - 06-10-2021



**Resource Person -**

**Dr. Prashanta Kumar Pradhan**

**Mr. Bijaya Kumar Muni**

**3 day -  
Workshop on**

**Signal  
Processing**



## Using Matlab

**04-10-2021 TO 06-10-2021**

### RESOURCE PERSON -

1. Dr. Prashanta Kumar Pradhan
2. Mr. Bijaya Kumar Muni

### VENUE

MNR auditorium  
Hands On Session - DSP Lab



### Department of Electronics and Communication Engineering

Dr. Towheed Sultana  
HOD - ECE

Mrs. B. Sowmya  
Faculty Coordinator

## **DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

### **THREE-DAY WORKSHOP (04-10-2021 to 06-10-2021)**

**On**

### **“DIGITAL SIGNAL PROCESSING USING MATLAB”**

#### **Vision of Institute:**

To be a center of excellence in Engineering education, research and application of knowledge to benefit society with ethical values.

#### **Mission of Institute:**

1. To provide world class engineering education, encourage research and Development.
2. To evolve innovative applications of technology and develop entrepreneurship.
3. To mold the students into socially responsible and capable leaders.

#### **Vision of ECE Department:**

To be a guiding force enabling multifarious applications in Electronics and Communications Engineering, promote innovative research in the latest technologies to meet societal needs

#### **Mission of ECE Department:**

1. To provide and strengthen core competencies among the students through expert training and industry interaction.
2. To promote advanced designing and modeling skills to sustain technical development and lifelong learning in ECE.
3. To promote social responsibility and ethical values, within and outside the department.

#### **About the Department:**

The Department of ECE is best known for its talented and dedicated professionals renowned for their excellence in various specializations in the field of Electronics & Communication Engineering. For the last ten years, the students of ECE, who walked out of the portals of the institute successfully, holding their degrees, were immediately inducted into the MNCs of high reputation in India & abroad. The intake of B.Tech Program is 120 and of M.Tech program in VLSI System Design is 18. Department of ECE is having professional societies like IEEE, IETE, Department clubs etc

#### **About the Workshop:**

Digital signal processing using MATLAB is a proprietary multi-paradigm programming language and numeric computing environment developed by Math Works. MATLAB allows matrix manipulations, plotting of functions and data, implementation of algorithms, creation of user interfaces, and interfacing with programs written in other languages. The MATLAB application is built around the MATLAB programming language. Common usage of the MATLAB application involves using the "Command Window" as an interactive mathematical shell or executing text files containing MATLAB code. It can be used in various application formats to get the output in very simple format.

#### **Programme schedule:**

##### **DAY 1: Mr Muni**

Session1: Introduction on MATLAB. Uses of the software in ECE department and how it is applied in daily life.

Session 2: Introduction on alarm application. How it is created using MATLAB software.

##### **DAY 2: Mr Muni**

Session 3: Hands-on session for all the participants on the alarm application.

Session 4: Introduction on calculator application. How it is created using MATLAB software.

##### **DAY 3: Dr Pradhan**

Session 5: Hands-on session for all the participants on the calculator application.

Session 6: Convolution introduction. Problems and applications

#### **Speaker Profile:**

##### Dr. Prashanth Kumar Pradhan

Associate professor JBIET. He has an experience of 10 years in this field of MATLAB

##### Mr. Bijaya Kumar Muni

Assistant professor JBIET. He has an experience of 12 years in this field of MATLAB

## **Report on Three-Day Workshop On “Digital Signal Processing Using MATLAB”**

*Three-Day Workshop on “Digital Signal Processing Using MATLAB”* was conducted by the IETE STUDENT FORUM, Department of Electronics and Communication Engineering from 4<sup>th</sup> to 6<sup>th</sup> October 2021. **Dr Pradhan** Associate professor JBIET and Mr. Bijaya Kumar Muni Assistant professor JBIET were the Resource Persons.

Six Sessions were conducted both theory and practical. The topics covered were Introduction on MATLAB, Its uses and applications. Resource persons also briefed the students about the scope and opportunities in this field.

A quiz was conducted in the last session and feedback was collected. The workshop was concluded with vote of thanks.

*Towheed S*

HOD ECE



## Sample Photographs



## Participants list

S.No	Roll No	Student Name	S.No	ROLL NUMBER	Student Name
1	19671A0401	ATTURI AKANKSHA	1	19671A0451	BHARATH CHANDRA VIPPARTHI
2	19671A0402	ALLAMANENI AMRUTH	2	19671A0453	BILLAKANTI SAI NITHISH
3	19671A0403	ARELLI KIREETI	3	19671A0454	B TARUN
4	19671A0404	B DINESH REDDY	4	19671A0455	CHILUVERU VARUN
5	19671A0405	BALAJI KONKISA	5	19671A0456	CHINTHALA DEVAYANI
6	19671A0406	BANOTH SAIRAM	6	19671A0457	DANTHAM SANTHOSH
7	19671A0407	BHUKYA NAVEEN	7	19671A0458	DAREDDY SHIVA REDDY
8	19671A0408	BURRI THARUN KUMAR	8	19671A0459	DASARI VAMS KRISHNA
9	19671A0409	CHEEPURUPALLI SAI SREE	9	19671A0460	DULAM AKSHAYA
10	19671A0410	D CALIX BENNY RUFUS	10	19671A0462	GITTE SRISAILAM
11	19671A0411	DESHINI SRAVANI	11	19671A0463	GORIGE SRAVYA
12	19671A0412	DHARANIKOTA SATHWIK	12	19671A0464	GOURARAM MANIDEEP GOUD
13	19671A0413	DHONDI KHOBBANI SNEHITH KUMAR	13	19671A0465	G. BALU
14	19671A0414	D NEMISH	14	19671A0466	TALARI AJAY KUMAR
15	19671A0415	DAREDDY HARSHITHA	15	19671A0467	GOPALA YASHWANTH RAJ
16	19671A0416	G CHARITHA	16	19671A0468	KASULA MANOJ
17	19671A0417	GARIGE SWAGATH	17	19671A0469	KEESARI RENSUREE
18	19671A0418	GOPU NANDINI RANI	18	19671A0470	KINNERA HEMANTH
19	19671A0419	GULAM SADEEDUDDIN	19	19671A0471	KORADALA AMEEKSHA
20	19671A0420	HRUTHIK RAO AVIRNENI	20	19671A0472	KUSUMADARI KESHAV KUMAR SAI
21	19671A0421	JEDIPALLY UDAY KIRAN REDDY	21	19671A0473	KODELA MAHESH
22	19671A0422	JAIDI VINEELA	22	19671A0474	MADINENI NAVYA
23	19671A0423	KANDUKURI SAISRIKAR	23	19671A0475	MALISSETTI VAMSHI
24	19671A0424	KONDRA RAKSHITH REDDY	24	19671A0476	MEDA NIKHITA
25	19671A0425	KOYYADA RAKESH	25	19671A0477	MILKURI SHIVANI
26	19671A0426	K AKHILA	26	19671A0478	MOHAMMAD SAMEER PASHA
27	19671A0427	KALLEM SARIKA	27	19671A0479	MOOLA PRANAYA
28	19671A0428	LINGAMPELLE SRIKARNA	28	19671A0480	MUTHYALA LOKESH KUMAR
29	19671A0429	LOKAM AKHILESH	29	19671A0481	MALIGIREDDY RADDHIKA
30	19671A0430	LALAM SHIVA	30	19671A0482	OLAPU LAXMAN
31	19671A0431	M KAVYA	31	19671A0483	P SANDHYA
32	19671A0432	MD IMRAN PASHA	32	19671A0484	PASUPULETI VENKATESH
33	19671A0433	MODUGU SUNIL	33	19671A0485	POLASANI VAMSHI DESHAI
34	19671A0434	M SOUMITH REDDY	34	19671A0486	PAMIDI ANUDEEP CHOWDARY
35	19671A0435	N AKHILA	35	19671A0487	P VARUN KUMAR
36	19671A0436	NARSING BHARATH REDDY	36	19671A0488	SANAM SAMPURNA CHANDRA SHEKHAR
37	19671A0437	NEHRU SAI	37	19671A0489	SURU VINOD
38	19671A0438	PERUKA VINEETH	38	19671A0490	SURAIYA SHABNAM
39	19671A0439	PAMIDI NAMRATHA	39	19671A0491	TOLUPUNURI HARSHITH KOUNDINYA
40	19671A0440	PARIPELLI VAMSHI	40	19671A0492	TAKKALAPPELLI AKHIL RAO
41	19671A0441	PARVATHI SAITEJA	41	19671A0493	VEERAMALLA RANITH REDDY
42	19671A0442	RENUKUNTLA TEJASWAROOP	42	19671A0494	VEMPALLI LASYA
43	19671A0443	S UDAY SHANKAR	43	19671A0495	YANNA MAMATHA
44	19671A0444	SABAVATH RAKESH NAIK	44	19671A0496	YELLA KAVYA
45	19671A0445	SANA NAGA VENKATA SUBHASH NAIDU	45	19671A0497	VENKATAPURAM PAVAN KUMAR
46	19671A0446	THOTA SRAVAN KUMAR	46	19671A0498	V. SATYADEV
47	19671A0447	SANKA SATHVIK	47	19671A0499	BHUKYA VIJAY KUMAR
48	19671A0448	TALARI HARSHITHA	48	19671A04A0	MUNUGALA YESHWANTH REDDY
49	19671A0449	VANNELA MITHILESH	49	20675A0408	KURUMALLA VAMSHI
50	19671A0450	VINUKONDA SNEHA	50	20675A0409	SATHU GEETHABHAVANI
51	20675A0401	DHANSHETTY KASHINATH	51	20675A0410	M TARUN KUMAR
52	20675A0402	RAVIKUMAR RADHIKA	52	20675A0411	RANGU SRUJALA
53	20675A0403	NAKKA SANDEEP	53	20675A0412	NAGULA VINEETH KUMAR
54	20675A0404	RIZWANA	54	20675A0413	KOLLURI ANURAG
55	20675A0405	THALLA SWATHI	55	20675A0414	THANNERU PRAKASH
56	20675A0406	CHITHALAPETA RAJA REDDY	56	18671A0423	KORANI VAMSHI VARDHAN (Re-admn)
57	20675A0407	KOMARI SHIREESHA	57	18671A0424	KORRA BALRAM
58	18671A0467	RATHNAM THIRUMALESH (Re-admn)	58	18671A0435	K PAVAN (Re-admn)
			59	18671A0453	ADIRINTI PRAPULLA KUMAR (Re-admn)
			60	16671A0403	ADARSH KALLEPALLY (Re-admn)



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III B.Tech- I Sem ECE(A) - 2019 Batch - (2021-22)

MATLAB WORKSHOP ON SIGNAL PROCESSING

04-10-21

S.No	Roll No	Student Name	FN	LN
1	19671A0401	ATTURI AKANKSHA	Akanksha	Atturi
2	19671A0402	ALLAMANENI AMRUTH	Amruth	Allamaneni
3	19671A0403	ARELLI KIREETI	Kireeti	Arelli
4	19671A0404	B DINESH REDDY	Dinesh	B
5	19671A0405	BALAJI KONKISA	Balaji	Konkisa
6	19671A0406	BANOTH SAIRAM	Sairam	Banoth
7	19671A0407	BHUKYA NAVEEN	Naveen	Bhukya
8	19671A0408	BURRI THARUN KUMAR	Tharun	Burri
9	19671A0409	CHEEPURUPALLI SAI SREE	Sai Sree	Cheepurupalli
10	19671A0410	D CALIX BENNY RUFUS	Benny Rufus	D Calix
11	19671A0411	DESHINI SRAVANI	Sravani	Deshini
12	19671A0412	DHARANIKOTA SATHWIK	Sathwik	Dharanikota
13	19671A0413	DHONDI KHOBBANI SNEHITH KUMAR	Snehith	Dhondi
14	19671A0414	D NEMISH	Nemish	D
15	19671A0415	DAREDDY HARSHITHA	Harshitha	Dareddy
16	19671A0416	G CHARITHA	Charitha	G
17	19671A0417	GARIGE SWAGATH	Swagath	Garige
18	19671A0418	GOPU NANDINI RANI	Nandini	Goju
19	19671A0419	GULAM SADEEDUDDIN	Sadeeduddin	Gulam
20	19671A0420	HIRUTHIK RAO AVIRNENI	Avirneni	Hiruthik
21	19671A0421	JEDIPALLY UDAY KIRAN REDDY	Uday Kiran	Jedipally
22	19671A0422	JAIDI VINEELA	Vineela	Jaidi
23	19671A0423	KANDUKURI SAISRIKAR	Saisrikar	Kandukuri
24	19671A0424	KONDRA RAKSHITH REDDY	Rakshith	Kondra
25	19671A0425	KOYYADA RAKESH	Rakesh	Koyyada
26	19671A0426	K AKHILA	Akhila	K
27	19671A0427	KALLEM SARIKA	Sarika	Kalle
28	19671A0428	LINGAMPELLY SRIKARNA	Srikarna	Lingampelly
29	19671A0429	LOKAM AKHILESH	Akhilesh	Lokam

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13	19671A0413	DHONDI KHOBBANI SNEHITH KUMAR	Snehith	Dhondi
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20	19671A0420	HIRUTHIK RAO AVIRNENI	Avirneni	Hiruthik
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24	19671A0424	KONDRA RAKSHITH REDDY	Rakshith	Kondra
25	19671A0425	KOYYADA RAKESH	Rakesh	Koyyada
26	19671A0426	K AKHILA	Akhila	K
27	19671A0427	KALLEM SARIKA	Sarika	Kalle
28	19671A0428	LINGAMPELLY SRIKARNA	Srikarna	Lingampelly
29	19671A0429	LOKAM AKHILESH	Akhilesh	Lokam

## Quiz Questions

which of the following is a assignment operator in MATLAB? \*

- ☐ +
- ☐ 5
- ☐ \*
- ☐ \$

What is Band Width \*

- ☐ Upper cutoff freq
- ☐ upper cutoff freq-lower cutoff freq
- ☐ upper cutoff freq
- ☐ lower cutoff freq

\_\_\_\_\_ is not a pre defined variable in MATLAB? \*

- ☐ inf
- ☐ pi
- ☐ i
- ☐ gravity

A system is said to be linear when it obey the rules of \*

- ☐ Superposition
- ☐ Homogeneity
- ☐ both a and b
- ☐ none

Which of the following command is used to clear the command window in MATLAB? \*

- ☐ clear
- ☐ clc
- ☐ close all
- ☐ clear all

Range of Audio signal \*

- ☐ 20hz-20khz
- ☐ 20hz-200khz
- ☐ 200hz-2000khz
- ☐ 2hz-20khz

\_\_\_\_\_ is used to check if two elements are equal in MATLAB \*

- ☐ !=
- ☐ ==
- ☐ is equal
- ☐ =

Convolution in time domain becomes a \_\_\_\_\_ in frequency domain \*

- ☐ Division
- ☐ Multiplication
- ☐ Addition
- ☐ Subtraction

What does the command "PWD" means? \*

- ☐ Password
- ☐ Print current working directory
- ☐ Power digit
- ☐ Pi digit

The Sampling frequency of signal in sampling process should be \*

- ☐  $f_s = 0$
- ☐  $f_s < 2f_m$
- ☐  $f_s > 4f_m$
- ☐  $f_s \geq 2f_m$

The clc command is used to \*

- ☐ Erase everything in the mfile
- ☐ Clean the desktop
- ☐ Clear the command window
- ☐ Save the existing mfile

The signal  $f(t) = f(-t)$  is said to be \*

- ☐ Odd signal
- ☐ Even signal
- ☐ Equal signals
- ☐ none



If A= [25689], how to initialize 'A' in MATLAB \*

- ☐ A= 2;5;6;8;9
- ☐ A=256;89
- ☐ A=25689
- ☐ A= 25;689

Signal frequency can be enhanced by the process of a \*

- ☐ Modulation
- ☐ Demodulation
- ☐ transcription
- ☐ transmission

What does GUI stands for \*

- ☐ Graphical User Interface
- ☐ Geometric User Interface
- ☐ Graph Use Interrupt
- ☐ None

signal can be \_\_\_\_\_ \*

- ☐ Time variant
- ☐ It is a physical phenomenon
- ☐ Conveys information
- ☐ All of the above

MATLAB stands for \*

- ☐ Matrix Laboratory
- ☐ Matrix lab
- ☐ Mat laboratory
- ☐ none

If A= [25689], how to initialize 'A' in MATLAB \*

- ☐ A= 2;5;6;8;9
- ☐ A=256;89
- ☐ A=25689
- ☐ A= 25;689

Basic building block of MATLAB is \*

- ☐ Addition
- ☐ Multiplication
- ☐ Subtraction
- ☐ Matrix

What does GUI stands for \*

- ☐ Graphical User Interface
- ☐ Geometric User Interface
- ☐ Graph Use Interrupt
- ☐ None

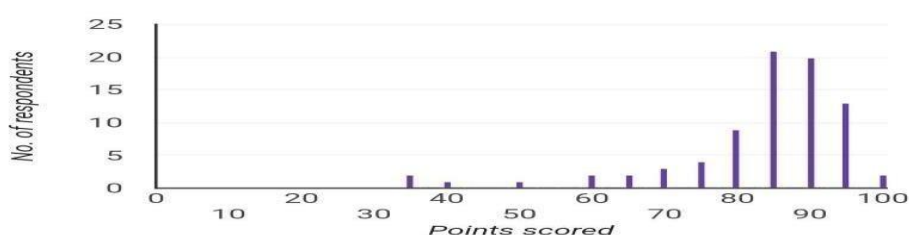
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**Average**  
83.25/100 points

**Median**  
85/100 points

**Range**  
35-100 points

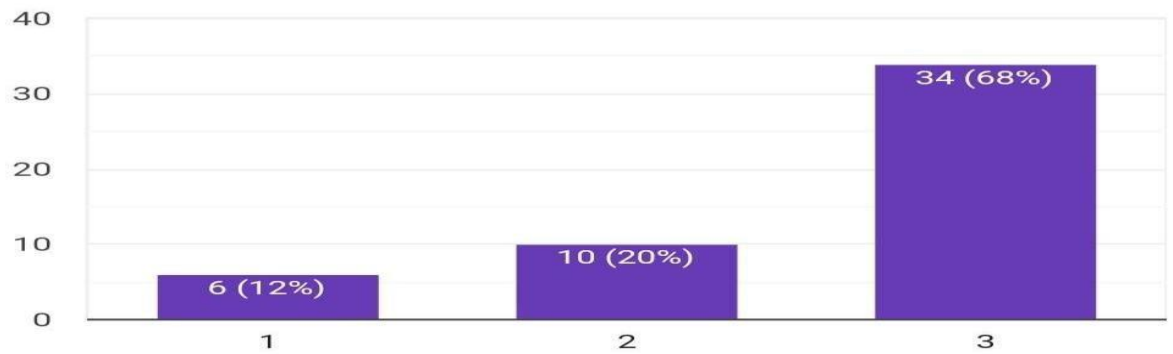
**Total points distribution**



## Feedback

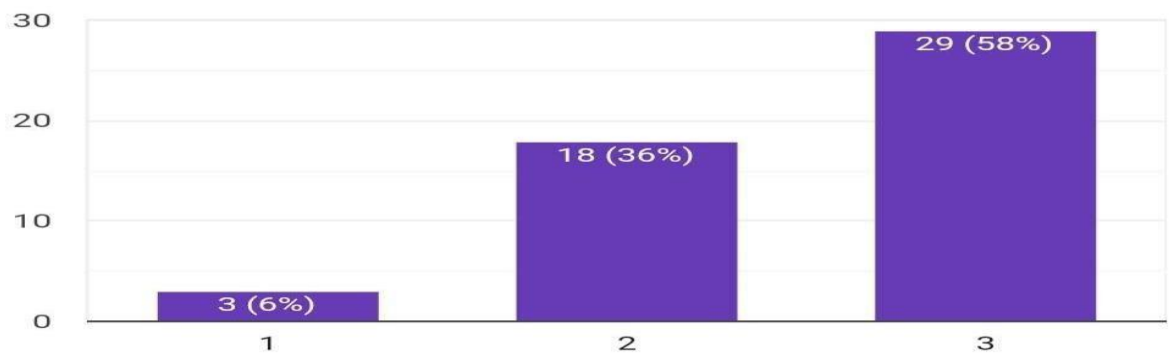
### Presentation

50 responses



### Duration of the Workshop

50 responses



### Speaker Overall Review

50 responses

