

KIIT POLYTECHNIC, BHUBANESWAR

LESSON PLAN

Session(2023-2024)

Discipline : Electronics & Telecommunication Engineering	Semester : 6th Summer/2024	Name of the Faculty : Dr. Binodini Tripathy Assistant Professor Email ID : binodinifet@kp.kiit.ac.in
Subject : MATLAB & Processing Simulation Lab	No. of Days/Week: 01 (3 periods/Day) Experiments will be performed in small groups of 5 students.	Start Date : 16/01/2024 End Date : 26/04/2024

Week	Class Day	Theory Topics
1st	1st	<ul style="list-style-type: none">• Write a program to subtract two 16 bit nu• Write a program to multiply two 16 bit numbers
	2nd	<ul style="list-style-type: none">• Write a program to subtract two 16 bit nu• Write a program to multiply two 16 bit numbers.
2nd	1st	<ul style="list-style-type: none">• Representation of basic signals like: unit impulse, ramp, exponential.• Generation of discrete sine and cosine signals with given sampling frequency• To represent complex exponential as a function of real and imaginary part
	2nd	<ul style="list-style-type: none">• Representation of basic signals like: unit impulse, ramp, exponential.• Generation of discrete sine and cosine signals with given sampling frequency• To represent complex exponential as a function of real and imaginary part
3rd	1st	<ul style="list-style-type: none">• Perform the convolution between two vectors using MATLAB.• To perform cross correlation between two vectors using MATLAB.• Perform DFT and IDFT of a given sequence using MATLAB• To determine impulse and step response of two vectors using MATLAB.

	2nd	<ul style="list-style-type: none"> • Perform the convolution between two vectors using MATLAB. • To perform cross correlation between two vectors using MATLAB. • Perform DFT and IDFT of a given sequence using MATLAB • To determine impulse and step response of two vectors using MATLAB.
4th	1st	<ul style="list-style-type: none"> • To perform linear convolution of two sequence using DFT using MATLAB. • To determine z-transform from the given transfer function and its ROC using MATLAB.
	2nd	<ul style="list-style-type: none"> • To perform linear convolution of two sequence using DFT using MATLAB. • To determine z-transform from the given transfer function and its ROC using MATLAB.
5th	1st	Revision/Repeat class for defaulter
	2nd	Revision/Repeat class for defaulter
6th	1st	<ul style="list-style-type: none"> • Write a program to read an analog input using ADC in continuous conversion mode using ADC Interrupt • Write a program to read four analog inputs using auto sequencer using ADC of 2407/or Higher
	2nd	<ul style="list-style-type: none"> • Write a program to read an analog input using ADC in continuous conversion mode using ADC Interrupt • Write a program to read four analog inputs using auto sequencer using ADC of 2407/or Higher
7th	1st	Revision/Repeat class for defaulter
	2nd	Revision/Repeat class for defaulter
8th	1st	<ul style="list-style-type: none"> • To determine rational z-transform from the given poles and zeros using MATLAB. • To determine partial fraction expansion of rational z-transform using MATLAB. • Write a program to generate a fixed sine PWM.
	2nd	<ul style="list-style-type: none"> • To determine rational z-transform from the given poles and zeros using MATLAB. • To determine partial fraction expansion of rational z-transform using MATLAB. • Write a program to generate a fixed sine PWM.
9th	1st	<ul style="list-style-type: none"> • Design a Type-1 chebyshev IIR high pass filter using MATLAB • To design an IIR Elliptic low pass filter using

		MATLAB.
	2nd	<ul style="list-style-type: none"> • Design a Type-1 chebyshev IIR high pass filter using MATLAB • To design an IIR Elliptic low pass filter using MATLAB.
10th	1st	<ul style="list-style-type: none"> • To design an IIR Elliptic low pass filter using MATLAB. • To design an IIR Butterworth bandpass filter using MATLAB
	2nd	<ul style="list-style-type: none"> • To design an IIR Elliptic low pass filter using MATLAB. • To design an IIR Butterworth bandpass filter using MATLAB
11th	1st	<ul style="list-style-type: none"> • Write a program to generate a three phase fixed pwm using event manager • Write a program to generate pwm and vary the frequency of PWM using Potentiometer .
	2nd	<ul style="list-style-type: none"> • Write a program to generate a three phase fixed pwm using event manager • Write a program to generate pwm and vary the frequency of PWM using Potentiometer .
12th	1st	Write a program to generate pwm and vary the frequency of PWM using Potentiometer .
	2nd	Write a program to generate pwm and vary the frequency of PWM using Potentiometer .
13th	1st	Write a program to vary the speed of DC motor by varying the duty cycle of PWM and tabulate the speed of the motor with respect to Duty cycle
	2nd	Write a program to vary the speed of DC motor by varying the duty cycle of PWM and tabulate the speed of the motor with respect to Duty cycle
14th	1st	Repeat class for experiment
	2nd	Repeat class for experiment
15th	1st	Practice Test
	2nd	Practice Test