KIIT POLYTECHNIC, BHUBANESWAR

LESSON PLAN

Session (2022 -2023)

Discipline: Electrical	**Semester**: 4th ,Summer-2023	**Name of the faculty:** Sunil Kumar Bhatta **Email Id:** sunilbhattafel@kp.kiit.ac.in
Subject: Simulation Practice on MATLAB	**No. of Days/week:** 02 (2 periods / Day)	**Start Date:** 13/02/2023 **End Date:** 23/05/2023
Experiments will be performed in small groups of 5 to 6 students.		

Week	Class Day	Practical Topics
1st	1st	• Introduction to MATLAB Basics, its usefulness. Learn main components of MATLAB & Simulink. • 1(A) To Understand MATLAB Software, Basic Features, Tool Box and Different functions. 1(B) To get familiar with different operator such as Arithmetic, Relational and Logic operator
	2nd	• Record Checking & Viva
2nd	1st	• Generate a matrix and perform some basic operation on matrices such as addition, subtraction, multiplication and special matrix functions using MATLAB Software.
	2nd	• Record Checking & Viva
3rd	1st	• Create a vector using linspace and perform some basic vector operation on such as addition, subtraction, multiplication using MATLAB Software.
	2nd	• Record Checking & Viva
4th	1st	• To get familiar with plotting commands used in MATLAB.
	2nd	• Record Checking & Viva
5th	1st	• To plot a circle of unit radius using MATLAB Software.
	2nd	• Record Checking & Viva
6th	1st	• To plot the fundamental signals like unit impulse signal, unit step signal & unit ramp signal using MATLAB.
	2nd	• Record Checking & Viva

7th	1st	• To generate the plot of sine and cosine wave using MATLAB functions.
	2nd	• Record Checking & Viva
8th	1st	• To verify Superposition theorem using MATLAB SIMULINK.
	2nd	• Record Checking & Viva
9th	1st	• To verify Thevenin's theorem using MATLAB SIMULINK.
	2nd	• Record Checking & Viva
10th	1st	• To verify Norton's theorem using MATLAB SIMULINK.
	2nd	• Record Checking & Viva
11th	1st	• To Simulate a half wave uncontrolled rectifier using MATLAB SIMULINK.
	2nd	• Record Checking & Viva
12th	1st	• To simulate 1-phase full wave bridge controlled rectifier using MATLAB SIMULINK.
	2nd	• Record Checking & Viva
13th	1st	• Repeat Class for experiment 1, 2, 3 & 4.
	2nd	• Repeat Class for experiment 5, 6, 7 & 8.
14th	1st	• Repeat Class for experiment 9, 10, 11 & 12.
	2nd	• Practice Test