

# LESSON PLAN

SUB:-SIMULATION PRACTICE ON MATLAB.

BRANCH:- ELECTRICAL ENGG.

SEMESTER: 4<sup>TH</sup>

NAME OF FACULTY: - UMESH KU DALAI



GOVERNMENT POLYTECHNIC,  
BHADRAK

SESSION:2023-24

Hod Electrical  
13-01-24  
HOD (ELECT.)  
G.P. BHADRAK

13.1.24  
Academic Co-ordinator  
Academic Co-ordinator

Principal  
13-01-24  
Govt. Polytechnic Bhadrak  
Principal  
Govt. Polytechnic  
Bhadrak

DISCIPLINE ELECTRICAL ENGG.	SEMESTER 4 <sup>TH</sup>	NAME OF THE TEACHING FACULTY UMESH KU DALAI (Lect. in Elect. Engg.)
SUBJECT SIMULATION PRATICE ON MATLAB	NO. OF DAYS/WEEK CLASS ALLOTTED – 45 (3P/week)	SEMESTER FROM DATE 16.01.2024 to 26.04.2024
WEEK	CLASS DAY	PRACTICAL TOPICS
1st	01	<b>Introduction to MATLAB programming:</b> Functions and operation using variables and arrays. To learn algebraic, trigonometric and exponential
	02	Functions and operation using variables and arrays. To learn algebraic, trigonometric and exponential
2nd	01	To learn Arithmetic, Relational and Logic operator
	02	To learn Arithmetic, Relational and Logic operator
3rd	01	Matrix formation and its manipulation
	02	Matrix formation and its manipulation
4th	01	Vector manipulation: Use of linspace to create vectors
	02	Vector manipulation: Use of linspace to create vectors
5TH	01	To create, add and multiply vectors. Use of sin and sqrt functions with vector arguments.
	02	To create, add and multiply vectors. Use of sin and sqrt functions with vector arguments.
6TH	01	Use of sin and sqrt functions with vector arguments
	02	Use of sin and sqrt functions with vector arguments
7 <sup>TH</sup>	01	Two dimensional Plots and sub plots
	02	Two dimensional Plots and sub plots
8 <sup>TH</sup>	01	Label the plot and printing. Write and execute a file to plot a circle, sine and cosine
	02	Label the plot and printing. Write and execute a file to plot a circle, sine and cosine

9 <sup>TH</sup>	01	Label the plot and printing. Write and execute a file to plot a impulse, step, ramp.
	02	Label the plot and printing. Write and execute a file to plot a impulse, step, ramp.
10 <sup>TH</sup>	01	<b>Introduction to SIMULINK:</b> Use of Commonly used blocks, Math operation block and Display block from SIMULINK library
	02	Use of Commonly used blocks, Math operation block and Display block from SIMULINK library
11 <sup>TH</sup>	01	Use of logical and relational operator block. Use of Sim-Power system block to use Electrical sources, elements and Power electronics devices
	02	Use of logical and relational operator block. Use of Sim-Power system block to use Electrical sources, elements and Power electronics devices
12 <sup>TH</sup>	01	Verification of Network theorems.
	02	Verification of Network theorems.
13 <sup>TH</sup>	01	Simulation of a half wave uncontrolled rectifier.
	02	Simulation of a half wave uncontrolled rectifier.
14 <sup>TH</sup>	01	Simulation of 1-phase full bridge controlled rectifier.
	02	Simulation of 1-phase full bridge controlled rectifier.
15 <sup>TH</sup>	01	Simulation of step-down chopper.
	02	Simulation of step-down chopper.

UK  
13.01.2024

SIGNATURE OF THE FACULTY

Lect.in Elect.Engg  
Govt.Poly.Bhadrak