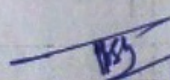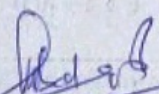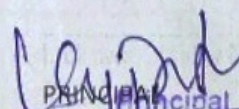# LESSON PLAN FOR SIMULATION PRACTICE ON MATLAB [Pr. 3]

Discipline: Electrical Engineering	Semester: 4th	Name of the Teaching Faculty:PRADOSH KUMAR PANDA
Subject: SIMULATION PRACTICE ON MATLAB	No. of days per week class allotted: 3	Semester From Date :14/02/2023 to Date: 23/05/2023 No. of Weeks: 15
Week	3 Class per Day	Theory/ Practical Topics
1st	1st	**1. Introduction to MATLAB programming:** Introduction
2nd	1st	1.1. Functions and operation using variables and arrays. 1.1.1. To learn algebraic, trigonometric and exponential manipulation.
3rd	1st	1.1.2. To learn Arithmetic, Relational and Logic operator. 1.2. Matrix formation and its manipulation.
4th	1st	1.3. Vector manipulation: 1.3.1. Use of linspace to create vectors. 1.3.2. To create, add and multiply vectors. 1.3.3. Use of sin and sqrt functions with vector arguments.
5th	1st	1.4. Plotting: 1.4.1. Two dimensional Plots and sub plots 1.4.2. Label the plot and printing.
6th	1st	1.5. Write and execute a file to plot a circle, impulse, step, ramp, sine and cosine functions. .
		2. Introduction to SIMULINK:
7th	1st	2.1. Use of Commonly used blocks, Math operation block and Display block from SIMULINK library.
8th	1st	2.2. Use of logical and relational operator block.
9th	1st	2.3. Use of Sim-Power system block to use Electrical sources, elements and Power electronics devices.
10th	1st	2.4. SIMULATION: 2.4.1. Verification of Network theorems.
11th	1st	2.4.2. Simulation of a half wave uncontrolled rectifier.
12th	1st	2.4.3. Simulation of 1-phase full bridge controlled rectifier.
13th	1st	2.4.3. Simulation of 1-phase full bridge controlled rectifier. (cont.)
14th	1st	2.4.4. Simulation of step-down chopper.
15th	1st	2.4.4. Simulation of step-down chopper.(cont.)

13/02/2023
HoD ELECTRICAL ENGG.

ACADEMIC CO-ORDINATOR

Principal
Government Polytechnic
GOVT. POLYTECHNIC NABARANGPUR
Nabarangpur

Pradosh Ku Panda