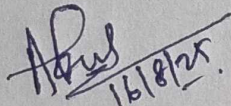


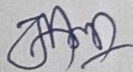
TH4

Discipline : MECHANICAL ENGINEERING	Semester:- 5TH	Name of the Teaching Faculty:- ANOJJA PUSPASHREE
Subject:- MECHATRONICS (TH-4)	No of Days/per Week Class Allotted :- 04	Semester From:- 16/8/24 To:- 24/12/24
Week	Class Day	Theory
1 st	1 st	Definition of Mechatronics
	2 nd	Advantages & disadvantages of Mechatronics
	3 rd	Application of Mechatronics ,Scope of Mechatronics in Industrial Sector
	4 th	Components of a Mechatronics System
2 nd	1 st	Importance of mechatronics in automation
	2 nd	Definition of Transducers
	3 rd	Classification of Transducers
	4 th	Electromechanical Transducers
3 rd	1 st	Transducers Actuating Mechanisms
	2 nd	Contd...Transducers Actuating Mechanisms
	3 rd	Displacement sensors
	4 th	Positions Sensors
4 th	1 st	Velocity, motion sensors
	2 nd	force and pressure sensors
	3 rd	Temperature and light sensors.
	4 th	Actuators ,Mechanical Actuators
5 th	1 st	Machine, Kinematic Link, Kinematic Pair
	2 nd	Mechanism, Slider crank Mechanism
	3 rd	Gear Drive, Spur gear, Bevel gear, Helical gear, worm gear
	4 th	Belt & Belt drive
6 th	1 st	Bearings
	2 nd	Electrical Actuator

	3 rd	Switches and relay ,Solenoid
	4 th	D.C Motors ,A.C Motors , Stepper Motors
7 th	1 st	Specification and control of stepper motors , Servo Motors D.C & A.C
	2 nd	Introduction to PLC
	3 rd	PLC system
	4 th	Advantages of PLC
8 th	1 st	PLC in industries and circuits
	2 nd	Selection of PLC
	3 rd	uses of PLC
	4 th	Architecture basic internal structures
9 th	1 st	Basic internal structures
	2 nd	Input/output Processing
	3 rd	Input/output Programming
	4 th	Mnemonics
10 th	1 st	Mnemonics
	2 nd	Master Controllers
	3 rd	Jump Controllers
	4 th	Introduction to Numerical Control of machines
11 th	1 st	Introduction to CAD/CAM
	2 nd	NC machines and CNC machines
	3 rd	CAD and CAM
	4 th	Software and hardware for CAD/CAM
12 th	1 st	Functioning of CAD/CAM system
	2 nd	Features and characteristics of CAD/CAM system
	3 rd	Application areas for CAD/CAM
	4 th	Introduction to CNC machines
13 th	1 st	Machine Structure of CNC Machine
	2 nd	Introduction and Types of Guide ways
	3 rd	Factors of design of guide ways
	4 th	Spindle drives, Feed drive
	1 st	Spindle
	2 nd	Spindle Bearings

14 th	3 rd	Definition
	4 th	Function and laws of robotics
15 th	1 st	Types of industrial robots
	2 nd	Robotic systems
	3 rd	Advantages and Disadvantages of robots
	4 th	Practical example of Robotic system


TEACHING FACULTY


HOD, MECHANICAL