GOVT. POLYTECHNIC BOLANGIR LESSON PLAN		
Discipline : Automobile	**Semester: 5TH**	**Name of the Teaching Faculty : Faculty 4**
Subject : MECHATRONICS	**No. of Days / per week class allotted : 4**	**Semester From date : 15.09.2022 to Date :22.12.2022 No. of Weesks : 14**
Week	**Class Day**	**Topics**
15.9 - 17.9	1st	Definition of Mechatronics
	2nd	Advantages & disadvantages of Mechatronics
	3rd	Application of Mechatronics
	4th	Scope of Mechatronics in Industrial Sector
19.9-24.9	1st	Components of a Mechatronics System
	2nd	Importance of mechatronics in automation
	3rd	Defination of Transducers
	4th	Classification of Transducers
26.9-1.10	1st	Electromechanical Transducers
	2nd	Transducers Actuating Mechanisms
	3rd	Displacement &Positions Sensors , Velocity, motion, force and pressure sensors.
	4th	Temperature and light sensors
10.10-15.10	1st	Machine, Kinematic Link, Kinematic Pair
	2nd	Mechanism, Slider crank Mechanism
	3rd	Gear Drive, Spur gear, Bevel gear, Helical gear, worm gear
	4th	Belt & Belt drive
17.10-22.10	1st	BEARINGS
	2nd	Switches and relay
	3rd	Solenoid
	4th	D.C Motors
24.10-29.10	1st	A.C Motors
	2nd	Stepper Motors
	3rd	Specification and control of stepper motors
	4th	Servo Motors D.C & A.C
31.10-5.11	1st	Introduction
	2nd	Advantages of PLC
	3rd	Selection and uses of PLC
	4th	Architecture basic internal structures
7.11-12.11	1st	Input/output Processing and Programming
	2nd	Mnemonics
	3rd	Master and Jump Controllers
	4th	Master and Jump Controllers
14.11-19.11	1st	NC machines
	2nd	CNC machines
	3rd	CAD/CAM
	4th	CAD
21.11-26.11	1st	CAM
	2nd	Software and hardware for CAD/CAM
	3rd	Functioning of CAD/CAM system
	4th	Features and characteristics of CAD/CAM system

28.11-3.12	1st	Application areas for CAD/CAM
	2nd	ntroduction
	3rd	Machine Structure
	4th	Guideways/Slide ways
5.12-10.12	1st	Introduction and Types of Guideways
	2nd	Factors of design of guideways
	3rd	Spindle drives
	4th	Feed drive
12.12-17.12	1st	Spindle and Spindle Bearings
	2nd	Definition, Function and laws of robotics
	3rd	Types of industrial robots
	4th	Robotic systems
19.12-22.12	1st	Advantages and Disadvantages of robots
	2nd	RIVISION
	3rd	RIVISION
	4th	RIVISION