

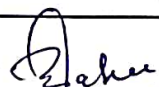
SYNERGY POLYTECHNIC, BBSR

The Lesson Plan

Discipline: <u>Mechanical.</u>	Semester: <u>5th</u>	Name of the Teaching Faculty: <u>S. I. Hasan.</u>
Subject: <u>Mechatronics.</u>	No of Days/per week class allotted: <u>4</u>	Semester from Date: <u>1.7.24</u> to Date: <u>18.11.24</u> No of Weeks:
Week	Class Day	Theory/Practical Topics
1st	1st	Definition - Advantage of Mechatronics.
	2nd	Application and disadvantage of Mechatronics.
	3rd	Scope of Mechatronics in Industry.
	4th	Component of Mechatronics.
	5th	
2nd	1st	Importance of Mechatronics in Automation.
	2nd	Sensor - Transducer - Definitions.
	3rd	Types of Transducer.
	4th	Electro mechanical Transducer.
	5th	
3rd	1st	Actuating Mechanism of Transducer.
	2nd	Displacement and Displacement Sensors.
	3rd	Velocity, Motion, Force Sensor.
	4th	Pressure Sensors
	5th	
4th	1st	Temperature and Light Sensors.
	2nd	Class Test
	3rd	Quiz Test.
	4th	Panel Answer discussion of above chapters
	5th	
5th	1st	Mechanical Actuator. Types.
	2nd	Machine used as Actuator.
	3rd	Kinematic Link, Kinematic Pair
	4th	Slider Crank Mechanism
	5th	


Sign of Faculty


HOD


Principal 22/6/24

SYNERGY POLYTECHNIC, BBSR

The Lesson Plan

Discipline:	Semester: 5th	Name of the Teaching Faculty: S. I. Khan
Subject: Mechatronics	No of Days/per week class allotted:	Semester from Date: 1.7.24 to Date: 18.11.24 No of Weeks:
Week	Class Day	Theory/Practical Topics
6 1st	1st	Gear Drive, spur and Bevel Gear.
	2nd	Helical and worm Gears.
	3rd	Belt and Belt drive.
	4th	Bearings.
	5th	
7 2nd	1st	Electrical Actuator Types, Introduction.
	2nd	Switch and Relay, Solenoid.
	3rd	D.C/Ac Motors.
	4th	Stepper motor - Specification and control.
	5th	
8 3rd	1st	Servo Motors Ac and Dc.
	2nd	Chapter Revision and Q and Answer.
	3rd	PLC - Introduction, Advantages.
	4th	Selection and uses of PLC.
	5th	
9 4th	1st	Architecture based Internal Structure,
	2nd	Input output Processing and programming.
	3rd	Mnemonics.
	4th	Modbus and Input controllers.
	5th	
10 5th	1st	Introduction CAD-CAM.
	2nd	NC Machine.
	3rd	CNC Machine.
	4th	CAD-
	5th	


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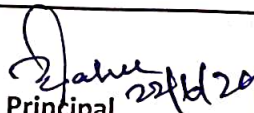
SYNERGY POLYTECHNIC, BBSR

The Lesson Plan

Discipline:	Semester: 3 th	Name of the Teaching Faculty: S. I. Man
Subject: Mechatronics	No of Days/per week class allotted:	Semester from Date: 1.7.21 to Date: 18.11.21 No of Weeks:
Week	Class Day	Theory/Practical Topics
1st	1st	CAM
	2nd	Software and hardware for CAD/CAM.
	3rd	Features and characteristic of CAD/CAM.
	4th	Application of CAD/CAM
	5th	
2nd	1st	Elements of CNC - Introduction
	2nd	Machining structure of CNC.
	3rd	Guide ways, Slide way - Types
	4th	Factor for designing guide ways.
	5th	
3rd	1st	Drives - Spindle Drive.
	2nd	Feed drive
	3rd	Spindle and Spindle bearing.
	4th	Chapter Q and A discussion.
	5th	
4th	1st	Robotic - Introduction, definitions.
	2nd	Law of Robotics.
	3rd	Types of Industrial Robots,
	4th	Robotic System.
	5th	
5th	1st	Advantages, dis-Advantages of Robotic System.
	2nd	Summary Q and Answer
	3rd	-do-
	4th	-do-
	5th	


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