

SESSION:		WINTER 2023									
BRANCH:		MECHANICAL ENGINEERING									
SEMESTER:		5TH SEC-A									
SUBJECT:		MECHATRONICS TH-4									
NAME OF THE FACULTY:			SANJAY KUMAR MISHRA								
SL NO.	MONTH	CHAPT. NO.	DATE	TOPICS TO BE COVERED	NO. OF ACADEMIC DAYS AVAILABLE FOR THE SUBJECT	% COVERED					
1	AUGUST	1	4/8/2023	1.1 Definition of Mechatronics	13	30%					
			5/8/2023	1.2 Advantages & disadvantages of Mechatronics							
			11/8/2023	1.3 Application of Mechatronics							
			12/8/2023	1.4 Scope of Mechatronics in Industrial Sector							
			18/8/23	1.5 Components of a Mechatronics System							
			19/8/23	1.6 Importance of mechatronics in automation							
		2	21/8/23	2.1 Definition of Transducers							
			22/8/23	2.2 Classification of Transducers							
			25/8/23	2.3 Electromechanical Transducers							
			26/8/23	2.3 Electromechanical Transducers							
			28/8/23	2.4 Transducers Actuating Mechanisms							
			29/8/23	2.5 Displacement & Positions Sensors							
			2	SEPT.			2	1/9/2023	2.6 Velocity, motion, force and pressure sensors	15	34%
								2/9/2023	2.6 Velocity, motion, force and pressure sensors		
4/9/2023	2.7 Temperature and light sensors										
3	5/9/2023	3.1.1 Machine, Kinematic Link, Kinematic Pair									
	8/9/2023	3.1.2 Mechanism, Slider crank Mechanism									
	9/9/2023	3.1.3 Gear Drive, Spur gear, Bevel gear, Helical gear, worm gear									
	11/9/2023	Gear Drive, Spur gear, Bevel gear, Helical gear, worm gear									
	12/9/2023	3.1.4 Belt & Belt drive									
	15/9/23	3.1.5 Bearings									
	22/9/23	3.2.1 Switches and relay									
	23/9/23	3.2.2 Solenoid									
	25/9/23	3.2.3 D.C Motors									
	26/9/23	3.2.4 A.C Motors									
	29/9/23	3.2.5 Stepper Motors									
	30/9/23	3.2.6 Specification and control of stepper motors									
OCT.	3	3/10/2023	3.2.7 Servo Motors D.C & A.C	7	16%						
		6/10/2023	3.2.7 Servo Motors D.C & A.C								

3	OCT.	4	7/10/2023	4.3 Selection and uses of PLC Architecture basic internal structures	7	16%
			9/10/2023	4.5 Input/output Processing and Programming Mnemonics		
		10/10/2023	4.7 Master and Jump Controllers			
	5	13/10/23	5.1.1 NC machines CNC machines CAD/CAM			
		31/10/23	CAD CAM			
4	NOV.	5	3/11/2023	5.1.3.3 Software and hardware for CAD/CAM Functioning of CAD/CAM system	9	20%
			4/11/2023	5.1.3.4 Features and characteristics of CAD/CAM system Application areas for CAD/CAM		
			6/11/2023	5.2.2 Machine Structure Guideways/Slide ways		
			7/11/2023	5.2.3.1 Introduction and Types of Guideways Factors of design of guideways		
			10/11/2023	5.2.4.1 Spindle drives Feed drive Spindle and Spindle Bearings		
		6	13/11/23	6.1 Definition, Function and laws of robotics		
			14/11/23	6.2 Types of industrial robots		
			17/11/23	6.3 Robotic systems		
			18/11/23	6.4 Advantages and Disadvantages of robots		

BRIEF SUMMARY OF THE PLAN

SL. NO.	MONTH	UNIT/CHAPTER TO BE COVERED	% COVERAGE
1	AUGUST	CHAPT. NO.- 1 & 2	30%
2	SEPTEMBER	CHAPT. NO.- 2 & 3	34%
3	OCTOBER	CHAPT. NO.- 3, 4, & 5	16%
4	NOVEMBER	CHAPT. NO.- 5 & 6	20%

Surya K. Mookerjee
03/08/23
signature of faculty

Gauth
31/12/23
signature of HOD

[Signature]
2/8/23
signature of principal