

SESSION		WINTER 2022				
BRANCH:		MECHANICAL ENGINEERING				
SEMESTER:		5TH-B				
SUBJECT:		MECHATRONICS TH-4				
NAME OF THE FACULTY:		R L DASH				
SL NO.	MONTH	No. of academic days available for the subject	DATE	TOPICS TO BE COVERED	% COVERED	
1	Sep-22	7	20.09.22	1.1 Definition of Mechatronics	16.66%	
			21.09.22	1.2 Advantages & disadvantages of Mechatronics		
			22.09.22	1.3 Application of Mechatronics		
			24.09.22	1.4 Scope of Mechatronics in Industrial Sector		
			27.09.22	1.5 Components of a Mechatronics System		
			28.09.22	1.6 Importance of mechatronics in automation		
			29.09.22	2.1 Definition of Transducers		
2	Oct-22	12	11.10.22	2.2 Classification of Transducers	28.56%	
			12.10.22	2.3 Electromechanical Transducers		
			13.10.22	2.4 Transducers Actuating Mechanisms		
			15.10.22	2.5 Displacement & Positions Sensors		
			18.10.22	2.6 Velocity, motion, force and pressure sensors		
			19.10.22	2.7 Temperature and light sensors		
			20.10.22	3.1.1 Machine, Kinematic Link, Kinematic Pair		
			22.10.22	3.1.2 Mechanism, Slider crank Mechanism		
			25.10.22	3.1.3 Gear Drive, Spur gear, Bevel gear, Helical gear, worm gear		
			26.10.22	Gear Drive, Spur gear, Bevel gear, Helical gear, worm gear		
27.10.22	3.1.4 Belt & Belt drive					
29.10.22	3.1.5 Bearings					
3	Nov-22	13	01.11.22	3.2.1 Switches and relay	30.94%	
			02.11.22	3.2.2 Solenoid		
			03.11.22	3.2.3 D.C Motors		
			05.11.22	3.2.4 A.C Motors		
			09.11.22	3.2.5 Stepper Motors		
			10.11.22	3.2.6 Specification and control of stepper motors		
			12.11.22	3.2.7 Servo Motors D.C & A.C		
			22.11.22	4.3 Selection and uses of PLC Architecture basic internal structures		
			23.11.22	4.5 Input/output Processing and Programming Mnemonics		

SESSION		WINTER 2022				
BRANCH:		MECHANICAL ENGINEERING				
SEMESTER:		5TH Sec A				
SUBJECT:		MECHATRONICS TH-4				
NAME OF THE FACULTY:		P.K. Subram				
SL NO.	MONTH	No. of academic days available for the subject	DATE	TOPICS TO BE COVERED	% COVERED	
1	Sep-22	7	01.09.22	1.1 Definition of Mechatronics	17.50%	
			09.09.22	1.2 Advantages & disadvantages of Mechatronics		
			20.09.22	1.3 Application of Mechatronics		
			23.09.22	1.4 Scope of Mechatronics in Industrial Sector		
			24.09.22	1.5 Components of a Mechatronics System		
			26.09.22	1.6 Importance of mechatronics in automation		
			27.09.22	2.1 Definition of Transducers		
			30.09.22	2.2 Classification of Transducers		
2	Oct-22	12	10.10.22	2.3 Electromechanical Transducers	30%	
			11.10.22	2.4 Transducers Actuating Mechanisms		
			14.10.22	2.5 Displacement & Positions Sensors		
			15.10.22	2.6 Velocity, motion, force and pressure sensors		
			17.10.22	2.7 Temperature and light sensors		
			18.10.22	3.1.1 Machine, Kinematic Link, Kinematic Pair		
			21.10.22	3.1.2 Mechanism, Slider crank Mechanism		
			22.10.22	3.1.3 Gear Drive, Spur gear, Bevel gear, Helical gear, worm gear		
			25.10.22	Gear Drive, Spur gear, Bevel gear, Helical gear, worm gear		
			28.10.22	3.1.4 Belt & Belt drive		
29.10.22	3.1.5 Bearings					
3	Nov-22	11	31.10.22	3.2.1 Switches and relay	27.50%	
			01.11.22	3.2.2 Solenoid		
			04.11.22	3.2.3 D.C Motors		
			05.11.22	3.2.4 A.C Motors		
			11.11.22	3.2.5 Stepper Motors		
			12.11.22	3.2.6 Specification and control of stepper motors		
			21.11.22	3.2.7 Servo Motors D.C & A.C		
22.11.22	4.3 Selection and uses of PLC Architecture basic internal structures					
25.11.22	4.5 Input/output Processing and Programming Mnemonics					

			26.11.22	4.7 Master and Jump Controllers	
			28.11.22	5.1.1 NC machines CNC machines CAD/CAM	
			29.11.22	CAD CAM	
4	Dec-22	10	02.12.22	5.1.3.3 Software and hardware for CAD/CAM Functioning of CAD/CAM system	25%
			03.12.22	5.1.3.4 Features and characteristics of CAD/CAM system Application areas for CAD/CAM	
			05.12.22	5.2.2 Machine Structure Guideways/Slide ways	
			06.12.22	5.2.3.1 Introduction and Types of Guideways Factors of design of guideways	
			09.12.22	5.2.4.1 Spindle drives Feed drive Spindle and Spindle Bearings	
			10.12.22	6.1 Definition, Function and laws of robotics	
			12.12.22	6.2 Types of industrial robots	
			13.12.22	6.3 Robotic systems	
			16.12.22	6.4 Advantages and Disadvantages of robots	
			17.12.22	REVISION	

Pramod Kishore Swain
SIGNATURE OF LECTURER

G. K. S.
SIGNATURE OF H.O.D. (MECHANICAL)