

COURSE OUTCOME ASSESSMENT AND ATTAINMENT(R16)

COURSE NAME:MECHATRONICS

CODE:R1641031

COURSE OUTCOMES:Students are able to

CO	STATEMENT
R1641031.1	Explain mechatronics design process.[K2]
R1641031.2	Choose sensors based on their working principle.[K2]
R1641031.3	Discuss the working of various actuators.[K3]
R1641031.4	Discuss the architecture of microprocessors and microcontroller.[K3]
R1641031.5	Explain the architecture of PLC and contrast it from PC and relay systems.[K1]
R1641031.6	Discuss the various case studies.[K3]

MAPPING CO'S WITH PO'S

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
R1641031.1			2											
R1641031.2		1	2			1								
R1641031.3	2									1				
R1641031.4	2				2									
R1641031.5			2			1				1				
R1641031.6		1			3									
Avg.	2	1	2		2.5	1				1				

MAPPING COURSE WITH PO'S

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
R1641031	2	1	2		2.5	1				1				

COURSE OUTCOME RUBRIC

Course	Assessment Methods with weightage	Method	Attainment Level 1 (Average)	Attainment Level 2 (Good)	Attainment Level 3 (Excellent)
Theory Course Outcome	Internal tests (40%)	Direct	60% students scoring more than 50% marks out of the maximum marks	70% students scoring more than 50% marks out of the maximum marks	80% students scoring more than 50% marks out of the maximum marks
	University Average Mark (60%)	Direct	50% students scoring more than 35 % of University Max marks	60% students scoring more than 35 % of University Max marks	70% students scoring more than 35 % of University Max marks

MEASURING CO ATTAINMENT THROUGH INTERNAL ASSESSMENTS		
INTERNAL TEST		
Attainment	:	40 out of 60 students got more than 16 (50% of max internal Marks 30) marks. So, 66 % of students got marks more than target marks.
Attainment level	:	3
MEASURING COURSE OUTCOMES ATTAINED THROUGH UNIVERSITY EXAMINATIONS (DIRECT METHOD)		
Attainment	:	50 out of 60 students got more than 24 (35% of University Max Marks 70) marks. So, 85 % of students got marks more than target marks
Attainment level	:	3

Total Attainment of Mechatronics Theory Course

Assessment Tool with weightage	Method	Level of attainment			
		3	2	1	0
Internal Exam (30%)	Direct	3			
University Exam (50%)	Direct	3			

Course Attainment = $0.4 \times 3 + 0.6 \times 3 = 3$. Since the attained level (3) is greater than the target level (2.5), all specified outcomes are achieved.

Course-PO Attainment for Mechatronics:

Final PO attainment value = $\frac{CO-PO \text{ Mapping Average} \times \text{Course Attainment Value}}{3}$

Final COURSE Attainment WITH PO'S

Final Course PO attainment

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
R1641031	2	1	2		2.5	1				1				