



Kalyani Charitable Trust's Late G. N. Sapkal College of Engineering

Kalyani Hills, Anjaneri, Trimbakeshwar Road,
Nashik – 422 213



Department of Electrical Engineering

CO-PO mapping and attainment 2022-23 Sem-I

Program: - Electrical Engineering						Class: - SE				Div.: - A		
Course Name: - Engineering Mathematics-III						Course Code: - 207006				Course -EE		
Subject Teacher: - Prof. K. P. Deshmukh						A.Y.: -2022-23 SEM- I						
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2		1		1						2
CO2	3	2		1		1						2
CO3	3	2		1		--						2
CO4	3	2		1		1						2
CO5	3	1		1		1						2
CO	3	1.8		1		1						2

Program: - Electrical Engineering						Class: - SE				Div.: - A		
Course Name: - Power Generation Technologies						Course Code: - 203141				Course -EE		
Subject Teacher: - Prof. R. U. Pawar						A.Y.: -2022-23 SEM- I						
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1	PO11	PO12
CO1	3	2	2	2	2	2	1	2	--	--	2	--
CO2	3	--	2	2	1	--	2	1	--	--	--	--
CO3	3	2	2	--	2	1	2	2	--	--	--	2
CO4	3	--	1	1	1	2	2	2	--	--	--	--
CO5	3	--	1	--	2	1	2	2	2	1	--	2
CO	3	2	1.6	1	1.6	1.2	1.6	1.4	2	1	2	2





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Program: - Electrical Engineering										Class: - SE			Div.: - A		
Course Name: - Material Science										Course Code: - 203142			Course -EE		
Subject Teacher: - Prof. S N Hurpade										A.Y -2022-23 SEM-I					
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO1	PO11	PO12			
CO1	3	2	2	2	2	2	3	2	--	--	2	--			
CO2	3	--	--	2	1	--	2	1	--	--	--	--			
CO3	3	2	2	--	2	1	2	2	--	--	--	2			
CO4	3	1	1	1	1	1	2	2	--	--	--	--			
CO5	3	--	1	--	2	1	2	2	2	1	--	1			
CO6	3	2	--	1	--	2	2	1		1	1	1			
CO	3	1.75	1.5	1.5	1.6	1.4	2.16	1.66	2	1	1.5	2			

Program: - SE ELECTRICAL										Class: - SE			Div.: - A		
Course Name: - Analog and Digital Electronics										Course Code: - 203143			Course -ELECTRICAL		
Subject Teacher: - Prof. S. S. Tidke										A.Y: -2022-23 SEM-I					
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12			
CO1	3	2	2	2	2	3	2	2				--			
CO2	3	1	2	2	1	--	2	2				1			
CO3	3	2	--	1	1	1	2	--	2			2			
CO4	3	2	--	1	1	1	2	--				2			
CO	3	1.66	2	1.66	1.33	2	2	2	2			1.5			

Program: - Electrical Engineering										Class: - SE			Div.: - A		
Course Name: - Electrical Measurements and Instrumentation										Course Code: - 203144			Course -ELECTRICAL		
Subject Teacher: - Prof. R. N. BAji										A.Y.: -2022-23					
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12			
CO1	3	2	2	2	2	2	1	2	--	--	2	1			
CO2	3	--	2	2	1	--	2	1	--	--	--	--			
CO3	3	2	2	--	2	1	2	2	--	--	--	2			
CO4	3	--	1	1	1	2	2	2	--	--	--	--			
CO5	3	--	1	--	2	1	2	2	1	1	--	2			
CO	3	2	1.6	1.66	1.6	1.2	1.6	1.4	1	1	2	1.5			





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Program: - Electrical Engineering					Class: - SE					Div.: - A		
Course Name: - Applications of Mathematics in Electrical Engineering					Course Code: - 203150					Course -ELECTRICAL		
Subject Teacher: - Prof. K. P. Deshmukh										A.Y.: -2022-23 SEM- I		
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	2	2	1	2	--	--	2	1
CO2	3	--	2	2	2	--	2	1	1	2	1	--
CO3	3	2	2	1	1	1	1	2	--	--	--	2
CO4	3	--	1	1	1	2	1	--	--	--	--	--
CO	3	2	1.75	1.5	1.5	1.66	1.25	1.66	1	2	1.5	1.5

Program: - Electrical Engineering					Class: - SE					Div.: - A		
Course Name: - Soft Skill					Course Code: - 203151					Course -EE		
Subject Teacher: - Prof. R. N. Baji										A.Y.: -2022-23 SEM- I		
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	2	2	1	2				
CO2	3		2	2	1		2	1				
CO3	3	2	2		2	1	2	2				2
CO4	3		1	1	1	2	2	2				
CO5	3		1		2	1	2	2				2
CO	3	2	1.6	1.66	1.6	1.5	1.8	1.8				2

Program: - Electrical Engineering					Class: - TE					Div.: - A		
Course Name: - Industrial and Technology Management					Course Code: - 303141					Course - ELECTRICAL		
Subject Teacher: - Prof. R. N. Baji										A.Y.: -2022-23		
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	2	3	3	2	--	--	2	--
CO2	3	1	3	3	1	2	2	2	1	--	--	1
CO3	3	2	--	2	2	1	2	--	--	--	--	2
CO4	3	--	2	--	1	2	1	2	--	2	--	--
CO5	3	1	1	1	2	2	2	1	2	2	--	2
CO6	3	1	2	1	--	--	--	--	--	--	--	--
CO	3	1.4	1.6	1.8	1.6	2	2	1.75	1.5	2	2	1.66



Program: - Electrical Engineering						Class: - TE				Div.: - A		
Course Name: - Power Electronics						Course Code: - 303142				Course - ELECTRICAL		
Subject Teacher: - Prof. S.S. Tidke						A.Y.: -2022-23 SEM-I						
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	2	3	2	2	--	--	2	--
CO2	3	1	2	2	1	--	2	2	--	--	--	1
CO3	3	2	--	1	1	1	2	--	--	--	--	2
CO	3	1.66	2	1.6	1.33	2	2	2			2	1.5

Program: - Electrical Engineering						Class: - TE				Div.: - A		
Course Name: - Electrical Machines-II						Course Code: - 303143				Course - ELECTRICAL		
Subject Teacher: - Prof. R. U. Pawar						A.Y.: -2022-23 SEM-I						
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	3	2	2	3	3	2	--	1	2	--
CO2	3	1	3	3	1	2	2	2	--	--	--	1
CO3	3	2	--	2	2	--	2	--	--	--	--	2
CO4	3	1	2	--	1	2	1	2	2	2	--	--
CO	3	2	1.75	2	1.33	2	2	2	2	2	2	1.5

Program: - Electrical Engineering						Class: - TE				Div.: - A		
Course Name: - Electrical Installation, Design and Condition Based Maintenance						Course Code: - 303144				Course - ELECTRICAL		
Subject Teacher: - Prof. P R Gajare						A.Y.: -2022-23 SEM-I						
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	2	3	3	2	--	--	2	--
CO2	3	2	3	3	1	2	1	2	--	--	--	2
CO3	3	2	--	2	2	1	2	--	--	--	--	2
CO4	3	--	2	--	1	2	1	2	--	--	--	--
CO5	3	1	1	1	2	1	2	2	2	2	--	1
CO	3	1.75	1.6	2	1.6	1.8	1.8	1.6	2	2	2	1.66





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Program: - Electrical Engineering						Class: - TE				Div.: - A		
Course Name: - Advanced Microcontroller and Embedded System						Course Code: - 303145A				Course - ELECTRICAL		
Subject Teacher: - Prof. S N Hurpade										A.Y.: -2022-23 SEM- I		
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	2	3	3	2	--	--	2	--
CO2	3	1	3	3	1	2	2	2	--	--	--	1
CO3	3	2	--	2	2	1	2	--	--	--	--	2
CO4	3	--	2	--	1	1	1	2	--	--	--	--
CO5	3	1	1	2	2	--	1	2	--	1	--	1
CO6	3	2	1	1	2	2	2	--	--	--	--	--
CO	3	1.6	1.8	2	2	2.2	2	1.6		1	2	1.33

Program: - Electrical Engineering						Class: - TE				Div.: - A		
Course Name: - Seminar						Course Code: - 303146				Course -ELECTRICAL		
Subject Teacher: - Prof. S. S. Tidke										A.Y.: -2022-23 SEM- I		
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	2	3	1	1	3	2	3	3
CO2	3	3	2	2	3	2	2	1	3	1	3	3
CO3	2	3	--	--	--	--	--	--	3	2	3	3
CO4	2	--	--	--	--	--	--	--	2	3	3	3
CO	2.50	2.67	2.00	2.00	2.50	2.50	1.50	1.00	2.75	2.00	3.00	3.00

Program: - Electrical Engineering						Class: - BE				Div.: - A		
Course Name: - Power System Operation and Control						Course Code: - 403141				Course -EE		
Subject Teacher: - Prof. S. N. Hurpade										A.Y.: -2022-23 SEM- I		
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	2	3	3	2	--	--	2	--
CO2	3	1	3	3	1	2	2	2	--	--	--	1
CO3	3	2	--	2	2	1	2	--	--	--	--	2
CO4	3	--	2	--	1	2	2	2	--	--	--	--
CO5	3	2		1	1			2	1			
CO	3.00	1.75	2.33	2.00	1.40	2.00	2.25	2.00	1.00		2.00	1.50



Program: - Electrical Engineering										Class: - BE			Div.: - A	
Course Name: - Advanced ControlSystem										Course Code: - 403142			Course -EE	
Subject Teacher: - Prof. P R Gajare										A.Y.: -2022-23 SEM- I				
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12		
CO1	3	2	2	2	2	3	3		1	2	2	--		
CO2	3	1	3	3	1	2	1		--	--	--	1		
CO3	3	2	--	2	2	1			--	--	--	2		
CO4	3	--	2	--	1	2			--	--	--	--		
CO	3	1.66	1.6	2	1.5	2	1.5		1	2	2	1.33		

Program: - Electrical Engineering										Class: - BE			Div.: - A	
Course Name: - Power Quality										Course Code: - 403143B			Course -EE	
Subject Teacher: - Prof. R. N. Baji										A.Y.: -2022-23 SEM- I				
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12		
CO1	3	2	2	2	2	3	3	2	--	--	2	--		
CO2	3	1	3	3	1	2	2	2	2	--	--	1		
CO3	3	2	--	2	2	1	2	--	--	2	--	2		
CO4	3	--	2	--	1	2	2	2	--	1	--	--		
CO5	3	2	--	2	2	1	2	--	--	--	--	1		
CO6	3	--	2	--	1	2	2	2	--	--	--	--		
CO	3	1.75	2.25	2.25	1.5	1.83	2.16	2	2	1.5	2	1.3333		

Program: - Electrical Engineering										Class: - BE			Div.: - A	
Course Name: - Electric and Hybrid Vehicle										Course Code: - 403144B			Course -EE	
Subject Teacher: - Prof. R. U. Pawar										A.Y.: -2022-23 SEM- I				
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12		
CO1	3	2	2	2	2	3	3	2	--	--	2	--		
CO2	3	1	3	3	1	2	2	2	2	--	--	2		
CO3	3	2	--	2	2	1	2	--	--	--	1	2		
CO4	3	2	2	--	1	2	2	2	--	1	--	--		
CO5	3	--	2	--	1	2	2	2	--	--	--	--		
CO	3	1.75	1.6	2.33	1.4	2	2.25	2	2	1	1.5	2		





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Program: - Electrical Engineering						Class: - BE				Div.: - A		
Course Name: - Project Stage-I						Course Code: - 403145				Course -EE		
Subject Teacher: - Prof. S. N. Hurdade										A.Y.: -2022-23 SEM-I		
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	2	3	3	2	--	2	2	--
CO2	3	1	3	3	1	2	2	2	2	--	--	1
CO3	3	2	--	2	2	1	2	--	1	2	--	2
CO4	3	--	2	--	1	2	2	2	--	--	--	--
CO5	3	1	3	3	1	2	2	2	--	--	--	1
CO6	3	2	--	2	2	1	2	--	--	--	--	2
CO	3	1.6	2.5	2.4	1.5	1.83	2.17	2	1.5	2	2	1.5

Program: - Electrical Engineering						Class: - BE				Div.: - A		
Course Name: - MOOCs						Course Code: - 403146				Course -EE		
Subject Teacher: - Prof. R. N. Baji										A.Y.: -2022-23 SEM- I		
COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	2	2	3			--	--	2	--
CO2	3	1	3	3	1	2			--	--	--	1
CO3	3	2	--	1	2	1			--	2	2	2
CO4	3	--	2	--	1				1	1	--	--
CO5	3	2	--	2		1			--	--	--	2
CO	3	1.75	2.33	1.6	1.5	1.75			1	1.5	2	1.66



Table 1: Program level Course-PO matrix for all the courses

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C201	3	1.8	--	1	--	1						2
C202	3	2	1.6	1	1.6	1.2	1.6	1.4	2	1	2	2
C203	3	1.75	1.5	1.5	1.6	1.4	2.16	1.66	2	1	1.5	2
C204	3	1.66	2	1.66	1.33	2	2	2	2			1.5
C205	3	2	1.6	1.66	1.6	1.2	1.6	1.4	1	1	2	1.5
C206	3	2	1.75	1.5	1.5	1.66	1.25	1.66	1	2	1.5	1.5
C207	3	2	1.6	1.66667	1.6	1.5	1.8	1.8				2
C301	3	1.4	1.6	1.8	1.6	2	2	1.75	1.5	2	2	1.66
C302	3	1.66	2	1.66	1.33	2	2	2			2	1.5
C303	3	2	1.75	2	1.33	2	2	2	2	2	2	1.5
C304	3	1.75	1.6	2	1.6	1.8	1.8	1.6	2	2	2	1.66
C305A	3	1.6	1.8	2	2	2.2	2	1.6		1	2	1.33
C306	3	2	2	1.66	1.6	1.5	2	1.6			2	2
C401	3	1.75	2.33	2	1.4	2	2.25	2	1		2	1.5
C402	3	1.66	1.6	2	1.5	2	1.5		1	2	2	1.33
C403B	3	1.75	2.25	2.25	1.5	1.83333	2.16667	2	2	1.5	2	1.33333
C404B	3	1.75	1.6	2.33	1.4	2	2.25	2	2	1	1.5	2
C405	3	1.6	2.5	2.4	1.5	1.83	2.17	2	1.5	2	2	1.5
C406	3	1.75	2.33	1.6	1.5	1.75			1	1.5	2	1.66
Target level overall POs	3.00	1.78	1.86	1.77	1.53	1.73	1.91	1.78	1.54	1.50	1.90	1.66



Table 2: Program level Course-PSO matrix for all the courses

Course	PSO1	PSO2	
C201	1.56		
C202	2	1.33	
C203	2	1.5	
C204	2	1.75	
C205	2	1.33	
C206	2	2	
C207	1.75	1.33	
C301	2	1.8	
C302	2	2	
C303	2	1.75	
C304	2	2	
C305A	2	1.75	
C306	2.33	2	
C401	2.67	1.75	
C402	1.66	2	
C403B	2	1.75	
C404B	2.25	1.75	
C405	1.5	1.33	
C406	1.75	2	
Target level overall PSOs	1.97	1.73	



Course Outcome Attainment

Course	Theory (%)						Oral / Practical (%)						Term Work (%)					
	C O1	C O2	C O3	C O4	C O5	C O6	CO 1	CO 2	CO 3	CO 4	CO 5	CO 6	CO 1	CO 2	CO 3	CO 4	CO 5	CO 6
C201	44.83%	44.83%	44.83%	44.83%	44.83%		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
C202	50.00%	50.00%	50.00%	50.00%	50.00%		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
C203	26.67%	26.67%	26.67%	26.67%	26.67%	26.67%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	NA	NA	NA	NA	NA	NA
C20	80.	80.	80.	80.			86.2	86.2	86.2	86.2			NA	NA	NA	NA		

4	00 %	00 %	00 %	00 %			1%	1%	1%	1%								
C20 5	40. 00 %	40. 00 %	40. 00 %	40. 00 %	40. 00 %		82.1 4%	82.1 4%	82.1 4%	82.1 4%	82.1 4%		NA	NA	NA	NA	NA	
C20 6	NA	NA	NA	NA			NA	NA	NA	NA			NA	NA	NA	NA		
C20 7	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	
C30 1	34. 48 %	34. 48 %	34. 48 %	34. 48 %	34. 48 %	34. 48 %	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C30 2	7.1 4%	7.1 4%	7.1 4%				80.0 0%	80.0 0%	80.0 0%				NA	NA	NA			
C30 3	31. 03 %	31. 03 %	31. 03 %	31. 03 %			79.3 1%	79.3 1%	79.3 1%	79.3 1%			NA	NA	NA	NA		
C30 4	90. 00 %	90. 00 %	90. 00 %	90. 00 %	90. 00 %		89.6 6%	89.6 6%	89.6 6%	89.6 6%	89.6 6%		NA	NA	NA	NA	NA	
C30 5A	70. 00 %	70. 00 %	70. 00 %	70. 00 %	70. 00 %	70. 00 %	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C30 6	NA	NA	NA	NA			NA	NA	NA	NA			NA	NA	NA	NA		
C40 1	21. 21 %	21. 21 %	21. 21 %	21. 21 %	21. 21 %		100. 00 %	100. 00 %	100. 00 %	100. 00 %	100. 00 %		100. 00 %	100. 00 %	100. 00 %	100. 00 %	100. 00 %	
C40 2	30. 30 %	30. 30 %	30. 30 %	30. 30 %			100. 00 %	100. 00 %	100. 00 %	100. 00 %			NA	NA	NA	NA		
C40 3B	21. 21 %	21. 21 %	21. 21 %	21. 21 %	21. 21 %	21. 21 %	93.7 5%	93.7 5%	93.7 5%	93.7 5%	93.7 5%	93.7 5%	NA	NA	NA	NA	NA	NA
C40 4B	27. 27 %	27. 27 %	27. 27 %	27. 27 %	27. 27 %		NA	NA	NA	NA	NA		100. 00 %	100. 00 %	100. 00 %	100. 00 %	100. 00 %	
C40 5	NA	NA	NA	NA	NA	NA	100. 00 %	100. 00 %	100. 00 %	100. 00 %	100. 00 %	100. 00 %	NA	NA	NA	NA	NA	NA
C40 6	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA		33.3 3%	33.3 3%	33.3 3%	33.3 3%	33.3 3%	



Internal Assessment:

Course	Unit Test (%)						Term work (%)					
	CO1	CO2	CO3	CO4	CO5	CO6	CO1	CO2	CO3	CO4	CO5	CO6
C201	97.06%	97.06%	94.12%	100.00%	94.12%		NA	NA	NA	NA	NA	
C202	91.18%	94.12%	94.12%	100.00%	97.06%		NA	NA	NA	NA	NA	
C203	91.18%	91.18%	100.00%	97.06%	100.00%	97.06%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
C204	96.67%	96.67%	93.33%	100.00%			NA	NA	NA	NA		
C205	94.12%	97.06%	91.18%	97.06%	94.12%		100.00%	100.00%	100.00%	100.00%	100.00%	
C206	NA	NA	NA	NA			100.00%	100.00%	100.00%	100.00%		
C207	NA	NA	NA	NA	NA		100.00%	100.00%	100.00%	100.00%	100.00%	
C301	96.67%	96.67%	93.33%	100.00%	96.67%	100.00%	NA	NA	NA	NA	NA	NA
C302	96.67%	93.33%	93.33%				NA	NA	NA			
C303	96.67%	96.67%	93.33%	96.67%			100.00%	100.00%	100.00%	100.00%		
C304	93.33%	96.67%	96.67%	100.00%	93.33%		100.00%	100.00%	100.00%	100.00%	100.00%	
C305A	93.33%	93.33%	90.00%	96.67%	93.33%	100.00%	NA	NA	NA	NA	NA	NA
C306	NA	NA	NA	NA			100	100	100	100		
C401	96.50%	93.10%	89.66%	100.00%	93.10%		NA	NA	NA	NA	NA	
C402	96.97%	96.97%	90.91%	100.00%			NA	NA	NA	NA		
C403B	96.97%	100.00%	93.94%	96.97%	93.94%	87.88%	NA	NA	NA	NA	NA	NA
C404B	90.91%	93.94%	96.97%	100.00%	93.94%		NA	NA	NA	NA	NA	
C405	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
C406	NA	NA	NA	NA	NA		NA	NA	NA	NA	NA	



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Indirect Assessment:

Course	Course Exit Survey (%)					
	CO1	CO2	CO3	CO4	CO5	CO6
C201	91	91	88	97	91	
C202	94	94	88	100	94	
C203	91	88	91	97	94	94
C204	100.00%	94.00%	91.00%	100.00%		
C205	97	94	91	100	97	
C206	94	97	91	88		
C207	100.00%	94.00%	91.00%	97.00%	94.00%	
C301	97	93	90	93	90	97
C302	93	97	90			
C303	97	93	87	100		
C304	93	90	87	93	93	
C305A	90	93	87	83	97	90
C306	90	87	83	100		
C401	89.90%	85.86%	87.88%	84.85%	91.92%	88.57
C402	94.00%	91.00%	88.00%	91.00%		
C403B	97.00%	94.00%	91.00%	91.00%	97.00%	94.00%
C404B	94.00%	88.00%	88.00%	91.00%	94.00%	
C405	97.00%	88.00%	94.00%	91.00%	94.00%	97.00%
C406	100.00%	100.00%	91.00%	97.00%	94.00%	





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Overall CO Attainment A.Y 2022-23

Course	Direct CO Attainment		Indirect CO Attainment	Overall CO Attainment
	External	Internal		
C201	1	3	1.4	3
C202	0.5	3	1	1.2
C203	1.4	3	1.72	1.85
C204	3	3	3	3
C205	1	3	1.4	1.56
C206	3	3	3	3
C207	3	3	3	3
C301	2	3	2.2	2.8
C302	1.33	3	1.66	1.797
C303	1.66	3	1.93	1.84
C304	3	3	3	3
C305A	3	3	3	3
C306	3	3	3	3
C401	3	3	3	3
C402	1.5	3	3	2.04
C403B	1.5	3	3	2.04
C404B	1.5	3	3	2.04
C405	3	3	3	3
C406	0	0	3	0.6





Table: 3 PO attainment values

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C201	1.56	0.936		0.52		0.52						1.04
C202	1.2	0.8	0.64	0.4	0.64	0.48	0.64	0.56	0.8	0.4	0.8	0.8
C203	1.848	1.078	0.924	0.924	0.9856	0.8624	1.33056	1.02256	1.232	0.616	0.924	1.232
C204	3	1.66	2	1.66	1.33	2	2	2	2			1.5
C205	1.56	1.04	0.832	0.8632	0.832	0.624	0.832	0.728	0.52	0.52	1.04	0.78
C206	3	2	1.75	1.5	1.5	1.66	1.25	1.66	1	2	1.5	1.5
C207	3	2	1.6	1.66667	1.6	1.5	1.8	1.8				2
C301	2.28	1.064	1.216	1.368	1.216	1.52	1.52	1.33	1.14	1.52	1.52	1.2616
C302	1.797	0.99	1.1984	0.994672	0.7966	1.194	1.198	1.198	0	0	1.194	0.898
C303	1.84	2	1.074733	1.2287	0.81	1.2	1.22	1.227	0	0.633	1.2867	0.922
C304	3	1.2	1.6	2.25	1.6	2	2	1.6	2	2	2	1.33
C305A	3	1.6	1.8	2	2	2.2	2	1.6		1	2	1.33
C306	3	2	2	1.66	1.6	1.5	2	1.6			2	2

C401	3	1.75	2.33	2	1.2	2	2.25	2	1		2	1.5
C402	2.04	1.13	1.09	1.36	1.02	1.36	1.02		0.68	1.36	1.36	0.9
C403B	2.04	1.19	1.53	1.53	1.02	1.25	1.47	1.36	1.36	1.02	1.36	0.91
C404B	2.04	1.19	1.09	1.58	0.95	1.36	1.53	1.36	1.36	0.68	1.02	1.36
C405	3	1.6	2.5	2.4	1.5	1.83	2.17	2	1.5	2	2	1.5
C406	3	1.75	2.33	1.6	1.5	1.75			1	1.5	2	1.66
Direct PO Attainment	2.38	1.42	1.53	1.45	1.23	1.41	1.54	1.44	1.04	1.09	1.50	1.29
Indirect PO Attainment	2.14	2.57	2.27	2.44	2.66	2.36						
Overall PO Attainment	2.33	1.65	1.68	1.65	1.51	1.60	1.70	1.64	1.31	1.43	1.72	1.53

Table: 4 PSO attainment values

Course	PSO1	PSO2	PSO3
C201	1.56		
C202	0.8	0.532	
C203	1.232	0.924	
C204	2	1.75	
C205	1.04	0.6916	
C206	2	2	
C207	1.75	1.33	
C301	1.52	1.368	
C302	1.1984	1.1984	
C303	1.287	1.07473	
C304	2.33	2	
C305A	2	1.75	
C306	2.33	2	
C401	2.67	1.75	
C402	1.13	1.36	



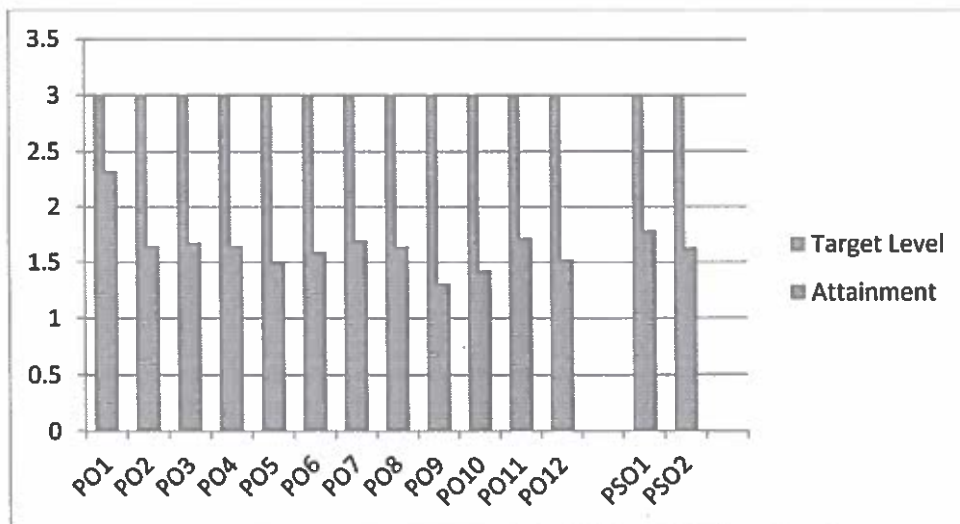


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C403B	1.36	1.19	
C404B	1.53	1.19	
C405	1.5	1.33	
C406	0.35	0.4	
Direct PSO Attainment	1.56	1.32	
Indirect PSO Attainment	2.74	2.83	
Overall PSO Attainment	1.79	1.63	



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