MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR (M.P.)

(A Govt. Aided UGC Autonomous & NAAC Accredited Institute Affiliated to RGPV, Bhopal)

Department of Electronics Engineering

CO Attainment (Direct & Indirect) for the session July - Dec 2022

Semester	Course	CO	Direct CO Attainment	Indirect CO Attainment (using feedback)	Total CO Attainment (in %)	Target CO Attainments in terms of levels	Gap Analysis (Target Attainment - Attainment Achieved)	Action taken
III	140311/200311 Electronics Circuits Design	CO1	2.8	1.1	2.46	2	-0.46	All CO Target achieved. Higher order thinking questions can be added in question paper
		CO2	2.7	0.9	2.34	2	-0.34	
		CO3	2.1	1.7	2.02	2	-0.02	
		CO4	2.6	2	2.48	2	-0.48	
		CO5	2.7	1.3	2.42	2	-0.42	
	140312/200312 Digital Circuits & Systems	CO1	2.7	2.2	2.6	2	-0.6	Target for CO1, CO2, CO3 & CO5have been achieved however target for CO4 has NOT been achieved. Following actions can be taken; ● More assignment can be given for practise. ● Conduct more quizzes.
		CO2	2.9	2.7	2.86	2	-0.86	
		CO3	2.8	2.3	2.7	2	-0.7	
		CO4	1.8	2	1.84	2	0.16	
		CO5	2.2	2.9	2.34	2	-0.34	
	140313/200313 Network Theory	CO1	2.6	2	2.48	2	-0.48	All CO Target achieved. Higher order thinking questions can be added in question paper
		CO2	2.3	2.2	2.28	2	-0.28	
		CO3	2	2.2	2.04	2	-0.04	
		CO4	2.8	2.2	2.68	2	-0.68	
		CO5	2.7	2.9	2.74	2	-0.74	
	140314/200314 Analog Communication	CO1	2.7	2.1	2.58	2	-0.58	Target for CO1 & CO5 have achieved however target for CO2, CO3 & CO4 have NOT achieved. Following actions can be taken;. ● Conduct more tutorial classes. ● More numerical can be added in assignments
		CO2	2.1	1.3	1.94	2	0.06	
		CO3	1.7	2.2	1.8	2	0.2	
		CO4	1.1	1.6	1.2	2	0.8	
		CO5	2.4	1.3	2.18	2	-0.18	

V	**140511/ 200511 Data Science**	CO1	**1.7**	**1.7**	**1.7**	**2**	**0.3**	Target for CO4has achieved however target for CO1, CO2, CO3 & CO5 have NOT achieved. Following actions can be taken; ● More assignments should be given and solutions should be discussed Conduct doubt clearing session regularly.
		CO2	**1.5**	**1.4**	**1.48**	**2**	**0.52**	
		CO3	**1.5**	**1.7**	**1.54**	**2**	**0.46**	
		CO4	**2.5**	**2.1**	**2.42**	**2**	**-0.42**	
		CO5	**1.4**	**2.1**	**1.54**	**2**	**0.46**	
	140512/ 200512 Microprocessor & Interfacing	CO1	**2.5**	**2.3**	**2.46**	**2**	**-0.46**	Target for CO1, CO2, CO3 & CO4 have achieved however target for CO5 has NOT achieved. Following actions can be taken; ● Solution of tutorial/assignment should be discussed. ● Conduct additional classes.
		CO2	**2.1**	**2.3**	**2.14**	**2**	**-0.14**	
		CO3	**2.2**	**2.4**	**2.24**	**2**	**-0.24**	
		CO4	**2.7**	**2.2**	**2.6**	**2**	**-0.6**	
		CO5	**1.6**	**1.9**	**1.66**	**2**	**0.34**	
	140513/ 200513 Linear Control Theory	CO1	**2.2**	**1.8**	**2.12**	**2**	**-0.12**	Target for CO1, CO2 & CO3 have achieved however target for CO4 & CO5have NOT achieved. Following actions can be taken; ● Mini projects should be given. ● Numerical problems should be solved in class.
		CO2	**2.6**	**1.3**	**2.34**	**2**	**-0.34**	
		CO3	**2.1**	**1.8**	**2.04**	**2**	**-0.04**	
		CO4	**1.6**	**1.5**	**1.58**	**2**	**0.42**	
		CO5	**2.1**	**1.3**	**1.94**	**2**	**0.06**	
	140514/ 200514 Digital Communication	CO1	**2.3**	**1.7**	**2.18**	**2**	**-0.18**	Target for CO1, CO2 CO3 & CO5 have achieved however target for CO4 has NOT achieved. Following actions can be taken; ● Conduct more tutorials session ● Numerical based assignment should be given.
		CO2	**2.7**	**1.8**	**2.52**	**2**	**-0.48**	
		CO3	**2.7**	**1.6**	**2.48**	**2**	**-0.48**	
		CO4	**1.4**	**1.7**	**1.46**	**2**	**0.54**	
		CO5	**2.7**	**1.6**	**2.48**	**2**	**-0.48**	
VII	**DE-3 Microwave Engineering**	CO1	**2.9**	**1.2**	**2.56**	**2.25**	**-0.31**	Target for CO1 & CO5 have achieved however target for CO2, CO3 & CO4 have NOT achieved. Following actions can be taken; ● More quizzes should be conducted. ● Solution of
		CO2	**2.4**	**1**	**2.12**	**2.25**	**0.13**	
		CO3	**0.7**	**1.8**	**0.92**	**2.25**	**1.33**	
		CO4	**2.3**	**1.8**	**2.2**	**2.25**	**0.05**	
		CO5	**3**	**2**	**2.8**	**2.25**	**-0.55**	

								previous paper should be discussed.
	DE-3 Sattelite& RADAR Communication	CO1	**2.2**	**2.6**	**2.28**	**2.25**	**-0.03**	Target for CO1 & CO3 have achieved however target for CO2, CO4 & CO5 have NOT achieved. Following actions can be taken; ● More tutorial should be solved in class. ● Conduct presentation sessions.
		CO2	**1.7**	**2.2**	**1.8**	**2.25**	**0.45**	
		CO3	**2.5**	**2.6**	**2.52**	**2.25**	**-0.27**	
		CO4	**1.2**	**2.2**	**1.4**	**2.25**	**0.85**	
		CO5	**1.1**	**2**	**1.28**	**2.25**	**0.97**	
	DE-3 VLSI Design	CO1	**2.3**	**1.3**	**2.1**	**2**	**-0.1**	Target for CO1, CO2, CO4 & CO5 have achieved however target for CO3 has NOT achieved. Following actions can be taken; ● Case study on VLSI circuit should be given. ● Conduct more remedial classes.
		CO2	**2.4**	**0.7**	**2.06**	**2**	**-0.06**	
		CO3	**2.2**	**0.1**	**1.78**	**2**	**0.22**	
		CO4	**2.9**	**0.3**	**2.38**	**2**	**-0.38**	
		CO5	**2.5**	**0.3**	**2.06**	**2**	**-0.06**	
	OC-3 (MEMS)	CO1	**2.9**	**1.9**	**2.7**	**2**	**-0.7**	All CO Target achieved. Difficulty level of questions can be increase in question paper
		CO2	**2.9**	**2.3**	**2.78**	**2**	**-0.78**	
		CO3	**2.9**	**2.4**	**2.8**	**2**	**-0.8**	
		CO4	**2.6**	**2.2**	**2.52**	**2**	**-0.52**	
		CO5	**2.3**	**1.9**	**2.22**	**2**	**-0.22**	

Total No of courses	Total number of COs	Number of COs NOT attained target level	% of COs not attained	Action taken
12	**60**	**19**	**32%**	● More assignments/ tutorials should be given & solutions should be discussed related to specific CO ● Conduct additional Classes focused on specific CO. ● Assign mini projects. ● Conduct Interaction/ expert session.

Semester	Course code & name	Rubrics/ range (corresponding to level 1-2-3)
Semester - III	**140311/200311 Electronics Circuits Design**	70-80-90
	140312/ 200312 Digital Circuits & Systems	65-75-85
	140313/ 200313 Network Theory	65-75-85
	140314/ 200314 Analog Communication	70-80-90
Semester - V	**140511/ 200511 Data Science**	65-75-85
	140512/ 200512 Microprocessor & Interfacing	60-70-80
	140513/ 200513 Linear Control Theory	70-80-90
	140514/ 200514 Digital Communication	70-80-90
Semester - VII	**DE-3 Microwave Engineering**	65-75-85
	DE-3 Sattelite& RADAR Communication	55-65-75
	DE-3 VLSI Design	70-80-90
	OC-3 (MEMS)	65-75-85

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