



MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR
(Deemed to be University)
(Declared Under Distinct Category by Ministry of Education, Government of India)



NAAC Accredited with A++ Grade

Department of Electrical Engineering
Scheme of Evaluation

M. Tech. I Semester (*Industrial Systems & Drives*) (for batch admitted in academic session 2024-25)

S. No.	Course Code	Category Code	Course Name	Maximum Marks Allotted					Total Marks	Contact Hours per week			Total Credits	Mode of Learning	Mode of Exam.	Duration of Exam.	
				Theory Block			Practical Block			L	T	P					
				Continuous Evaluation			Major Evaluation	Continuous Evaluation Lab Work & Sessional									
				Minor Evaluation I	Minor Evaluation II	Quiz/Assignment											
1.	58241101	DC	Computational Techniques	20	20	30	30	-	-	100	3	-	-	3	Face to Face	PP	2 Hrs
2.	58241102	DC	Advanced Electric Drives	20	20	30	30	-	-	100	2	1	-	3	Face to Face	PP	2 Hrs
3.	58241103	DC	Modern Control System	20	20	30	30	-	-	100	2	1	-	3	Face to Face	PP	2 Hrs
4.	582411xx	DE	Departmental Elective (DE-1)	20	20	30	30	-	-	100	3	-	-	3	Face to Face	PP	2 Hrs
5.	582411yy	SPC	Specialization Course (SPC-1)	20	20	30	30	-	-	100	3	-	-	3	Face to Face	PP	2 Hrs
6.	58241108	DLC	Advanced Drives Lab[#]	-	-	-	-	70	30	100	-	-	4	2	Experiential	AO	-
7.	58241109	DLC	Seminar/Presentation[§]	-	-	-	-	70	30	100	-	-	4	2	Blended	SO	-
8.	NECxXXXX	NEC	Classified Novel Engaging Course (Activity Based Learning)	-	-	-	-	-	50	50	-	1	-	1	Interactive	SO	-
Total				100	100	150	150	140	110	750	13	03	08	20	-	-	-

MCQ: Multiple Choice Question **PP:** Pen Paper **SO:** Submission + Oral **OB:** Open Book

[#] During lab, students have to perform practical/assignments/minor projects related to the courses of respective semester using recent technologies / languages / tools etc.

[§] Seminar/Presentation through SWAYAM / NPTEL (Registration in a course will be compulsory for students but assessment will be based on internal seminar presentation).

DE-1			SPC		
S. No.	Course Code	Course Name	S. No.	Course Code	Course Name
1.	58241104	Power Electronics Application to Power Systems	1.	58241107	Electric Drives for Hybrid Vehicles
2.	58241105	Design, Estimation & Costing of Industrial Electrical System	2.	58241108	Smart Grid Technology
3.	58241106	Robotics & Control	3.	58241106	Power Electronics for Renewable Energy Systems

Mode of Learning					Mode of Examination				Total Credits
Theory		Lab			Theory			Lab	
Face to Face	Online	Blended	Interactive	Experiential	PP	MCQ	OB	SO	
15	-	1	2	2	15	-	-	5	20
75%	-	5%	10%	10%	75%	-	-	25%	Credits %



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M. Tech. II Semester (*Industrial Systems & Drives*) (for batch admitted in academic session 2024-25)

S. No.	Course Code	Category Code	Course Name	Maximum Marks Allotted								Total Marks	Contact Hours per week			Total Credits	Mode of Learning	Mode of Exam.	Duration of Exam.
				Theory Block				Practical Block		MOOCs			L	T	P				
				Continuous Evaluation			Major Evaluation	Continuous Evaluation	Major Evaluation	Assignment	Exam								
				Minor Evaluation I	Minor Evaluation II	Quiz/Assignment													
1.	58241201	DC	Advanced Power Electronics	20	20	30	30	-	-	-	-	100	3	-	-	3	Face to Face	PP	2 Hrs
2.	58241202	DC	Microcontrollers & its Applications to Power Converters	20	20	30	30	-	-	-	-	100	2	1	-	3	Face to Face	PP	2 Hrs
3.	58241203	DC	Industrial Instrumentation & Control	20	20	30	30	-	-	-	-	100	2	1	-	3	Face to Face	PP	2 Hrs
4.	582412xx	DE	Departmental Elective* (DE-2)	-	-	-	-	-	-	25	75	100	3	-	-	3	Online	MCQ	3 Hrs
5.	58241207	SPC	Specialization Course (SPC-2)	20	20	30	30	-	-	-	-	100	2	1	-	3	Face to Face	PP	2 Hrs
6.	58241208	DLC	Advanced Power Electronics Lab [#]	-	-	-	-	70	30	-	-	100	-	-	4	2	Experiential	SO	-
7.	58241209	DLC	Seminar/Presentation [§]	-	-	-	-	70	30	-	-	100	-	-	4	2	Mentoring	SO	-
8.	NECxxxxx	NEC	Classified Novel Engaging Course (Activity-Based Learning)	-	-	-	-	-	50	-	-	50	-	1	-	1	Interactive	SO	-
Total				80	80	120	120	140	110	25	75	750	12	04	08	20	-	-	-

MCQ: Multiple Choice Question **PP:** Pen Paper **SO:** Submission + Oral **OB:** Open Book

* This course will run through SWAYAM / NPTEL / MOOC based learning platform (with credit transfer facility). The course can be related & relevant to other domain as well.

[#] During lab, students have to perform practical/assignments/minor projects related to the courses of respective semester using recent technologies / languages / tools etc.

[§] Seminar/Presentation through SWAYAM / NPTEL (Registration in a course will be compulsory for students but assessment will be based on internal seminar presentation).

DE-2* (MOOC)			SPC-2		
S. No.	Course Code	Course Name	S. No.	Course Code	Course Name
1.	58241204		1.	58241207	Power Converters for Microgrids
2.	58241205		2.	58241208	Smart Grid Protection
3.	58241206		3.	58241206	Distributed Generation & Micro Grids

Mode of Learning					Mode of Examination				Total Credits
Theory		Lab			Theory			Lab	
Face to Face	Online	Blended	Experiential	Interactive	PP	MCQ	OB	SO	
12	3	2	2	1	12	3	-	5	20
60%	15%	10%	10%	5%	60%	15%	-	25%	Credits %



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M. Tech. III Semester (*Industrial Systems & Drives*) [for batch admitted in academic session 2024-25]

S. No.	Course Code	Category Code	Course Name	Maximum Marks Allotted					Total Marks	Contact Hours per week			Total Credits	Mode of Learning	Mode of Exam.	Duration of Exam.	
				Theory Block			Practical Block			L	T	P					
				Continuous Evaluation			Major Evaluation	Continuous Evaluation									Major Evaluation
				Minor Evaluation I	Minor Evaluation II	Quiz/Assignment		Lab Work & Sessional									
1.	58242101	DLC	Dissertation Part-I (Literature Review/ Problem Foundation/ Synopsis/ survey paper, etc.)	-	-	-	-	175	75	250	-	-	28	14	Interactive	SO	-
Total				-	-	-	-	175	75	250	-	-	28	14	-	-	-



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M. Tech. IV Semester (*Industrial Systems & Drives*) (for batch admitted in academic session 2024-25)

S. No.	Course Code	Category Code	Course Name	Maximum Marks Allotted						Total Marks	Contact Hours per week			Total Credits	Mode of Learning	Mode of Exam.	Duration of Exam.
				Theory Block				Practical Block			L	T	P				
				Continuous Evaluation			Major Evaluation	Continuous Evaluation	Major Evaluation								
				Minor Evaluation I	Minor Evaluation II	Quiz/Assignment		Lab Work & Sessional									
1.	58242201	DLC	Dissertation Part-II	-	-	-	-	350	150	500	-	-	32	16	Interactive	SO	-
Total				-	-	-	-	350	150	500	-	-	32	16	-	-	-