

Session 2022-24

MTech in Power Plant Engineering & Energy Management

Semester I

SN	Subject Code	Subject	Periods per Week			Scheme of Examination		Total Marks	Credit L+(T+P)/2
			L	T	P	Theory / Practical			
						ESE	TA		
1	SOE-M-PPE101	Computational Methods and Optimization Techniques	4	0	0	50	50	100	4
2	SOE-M-PPE102	Advanced Power Plant Engineering	4	0	0	50	50	100	4
3	SOE-M-PPE103	Power Plant Machines	4	0	0	50	50	100	4
4	SOE-M-PPE104	Advanced Thermodynamics and Combustion	4	0	0	50	50	100	4
5	SOE-M-PPE105 (1-4)	Program Elective I (Annexure -I)	4	0	0	50	50	100	4
6	SOE-M-PPE106	Advanced Power Plant Engineering Lab-I	0	0	4	50	50	100	2
7	SOE-M-PPE107	Advanced Computational Methods and Optimization Techniques Lab	0	0	4	50	50	100	2
8	SOE-M-PPE108	Scientific paper writing & Seminar	1	0	1	25	25	50	2
Total			21	0	10	375	375	750	26

Program Elective I (Annexure - I)

Sr. No.	Subject Code	Name of the Courses
1	SOE-M-PPE105 (1)	Design and Analysis of Thermal Power Plant Equipment's
2	SOE-M-PPE105 (2)	Advanced Heat Transfer
3	SOE-M-PPE105 (3)	Sustainable and Renewable Energy Technology
4	SOE-M-PPE105 (4)	Energy Storage Systems
5	SOE-M-PPE105 (5)	Industrial Automation and Control

MTech in Power Plant Engineering & Energy Management Semester II

SN	Subject Code	Subject	Periods per Week			Scheme of Examination		Total Marks	Credit L+(T+P)/2
						Theory / Practical			
			L	T	P	ESE	TA		
1	SOE-M-PPE201	Industrial Instrumentation and Control	4	0	0	50	50	100	4
2	SOE-M-PPE202	Advanced Steam & Gas Turbine	4	0	0	50	50	100	4
3	SOE-M-PPE203	Design of Heat Exchangers	4	0	0	50	50	100	4
4	SOE-M-PPE204	Computational Fluid Dynamics	4	0	0	50	50	100	4
5	SOE-M-PPE205 (1-4)	Program Elective II (Annexure -II)	4	0	0	50	50	100	4
6	SOE-M-PPE206	Advanced Power Plant Engineering Lab-II	0	0	4	50	50	100	2
7	SOE-M-PPE207	Computational Fluid Dynamics Lab	0	0	4	50	50	100	2
8	SOE-M-PPE208	Project report writing & Seminar	1	0	2	25	25	50	2
Total			21	0	10	375	375	750	26

Program Elective -II (Annexure - II)

S.N	Subject Code	Name of the Courses
1	SOE-M-PPE205 (1)	Energy Management & Audit
2	SOE-M-PPE205 (2)	Advanced Solar Thermal Energy.
3	SOE-M-PPE205 (3)	Artificial Intelligence in Power Systems.
4	SOE-M-PPE205 (4)	Energy Conservation by Waste Heat Recovery.
5	SOE-M-PPE205 (5)	Modeling and Analysis of Solar Systems

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Semester III

S.N	Subject Code	Subject	Periods per Week			Scheme of Examination		Total Marks	Credit L+(T+P)/2
						Theory / Practical			
			L	T	P	ESE	TA		
1	SOE-M-PPE301	Power Plant Maintenance and Safety	4	0	0	50	50	100	4
2	SOE-M-PPE302	Industrial Training	0	0	8	100	100	200	4
3	SOE-M-PPE303	Research Seminar	0	0	4	25	25	50	2
4	SOE-M-PPE304	Dissertation-Phase I	0	0	24	125	125	250	10
Total			4	0	36	300	300	600	20

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Semester IV

SN	Board of Study	Subject Code	Subject	Periods per Week			Scheme of Examination		Total Marks	Credit L+(T+P)/2
							Theory / Practical			
				L	T	P	ESE	TA		
1	Mechanical	SOE-M-PPE401	Dissertation-Phase II	0	0	28	200	200	400	14
Total				0	0	28	200	200	400	14

L- Lecture ESE- End Semester Exam P- Practical T.A- Teacher's Assessment