Course Structure

M Tech (Power Systems), 2020-22

I Semester							
Sl.No	**Type**	**Course Name**	**Theory Hrs**	**Tutorial Hrs**	**Practical Hrs**	**Hrs/ Week**	**Total Credits**
1	Core 1 MTEE131	Modern Power System Analysis	3	0	0	3	3
2	Core 2 MTEE132	Power System Dynamics I	3	0	0	3	3
3	Program Elective I MTEE133X	Program Elective I	3	0	0	3	3
4	Program Elective II MTEE134X	Program Elective II	3	0	0	3	3
5	Core lab I MTEE151	Modern Power System Analysis Laboratory	0	0	2	2	2
6	Core lab II MTEE152	Smart Grid Laboratory	0	0	2	2	2
7	MLC MTEEMC1	Research Methodology and IPR	2	0	0	2	2
8	Audit MTEEAC1	Audit Course I	2	0	0	2	0
9	HE171	Holistic Education	1	0	0	1	1
		Total	**17**	**0**	**4**	**21**	**19**

II Semester							
Sl.No	**Type**	**Course Name**	**Theory Hrs**	**Tutorial Hrs**	**Practical Hrs**	**Hrs/ Week**	**Total Credits**
1	Core 3 MTEE231	Digital Protection of Power System	3	0	0	3	3
2	Core 4 MTEE232	Power System Dynamics-II	3	0	0	3	3
3	Program Elective III MTEE233X	Program Elective III	3	0	0	3	3
4	Program Elective IV MTEE234X	Program Elective IV	3	0	0	3	3
5	Core lab III MTEE251	HV & Power System Protection Laboratory	0	0	2	2	2
6	Core lab IV MTEE252	Renewable Energy System Laboratory	0	0	2	2	2
7	Core 5 MTEE271	Mini Project	0	0	4	4	2
8	Audit MTEEAC2	Audit Course-2	2	0	0	2	0
9	HE271	Holistic Education	1	0	0	1	1
		Total	**15**	**0**	**8**	**23**	**19**

III Semester							
Sl.No	**Type**	**Course Name**	**Theory Hrs**	**Tutorial Hrs**	**Practical Hrs**	**Hrs/ Week**	**Total Credits**
1	Program Elective V MTEE331X	Program Elective V	3	0	0	3	3
2	Open Elective MTEEOE1	1. Business Analytics	3	0	0	3	3
3	Major Project MTEE371	Phase – I Dissertation	0	0	20	20	10
4	MTEE372	Internship	0	0	4	4	2
		Total	**6**	**0**	**24**	**30**	**18**

IV Semester							
Sl.No	**Type**	**Course Name**	**Theory Hrs**	**Tutorial Hrs**	**Practical Hrs**	**Hrs/ Week**	**Total Credits**
1	Major Project MTEE471	Phase-II Dissertation	0	0	32	32	16
		Total	**0**	**0**	**0**	**0**	**0**

Program Elective I
A.Smart grid
B. AI Techniques
C. Advanced Micro-Controller Based Systems
D. SCADA System and Applications

Program Elective II
A. High Power Converters
B. Power Apparatus Design
C. Power Quality
D. Dynamics of Electrical Machines

Program Elective III
A. Renewable Energy System
B. Wind and Solar Systems
C. Electrical Power Distribution System
D. Restructured Power Systems
Program Elective IV
A. Electric and Hybrid Vehicles
B. Pulse Width Modulation for PE Converters
C. Mathematical Methods for Power Engineering
D. Advanced Digital Signal Processing
Program Elective V
A. Power System Transients
B. FACTS and Custom Power Devices
C. Industrial Load Modeling and Control
D. Dynamics Of Linear Systems
Open Elective
1. Business Analytics
2. Industrial Safety
3. Operations Research
4. Cost Management of Engineering Projects
5. Composite Materials
6. Waste to Energy

Sem	Theory Hrs	Tutorial Hrs	Practical Hrs	Hrs/ Week	Total Credits
I	**17**	**0**	**4**	**21**	**19**
II	**15**	**0**	**8**	**23**	**19**
III	**6**	**0**	**24**	**30**	**18**
IV	**0**	**0**	**32**	**32**	**16**
Total	**38**	**0**	**68**	**106**	**72**

Credit Distribution	
Programme Core	20
Programme Electives	15
Open Elective	3
MLC	4
Project	30