MTech (Power Systems) Curriculum

Course Structure

Semester - I		
Sr. No.	**Course Name**	**Credits**
1	Power System Management and planning	4
2	Dynamic Analysis And Performance Of Electric Machines	4
3	Optimization Techniques	4
4	Advanced Power System	4
5	Advanced Switchgear And Protection	4
6	Advanced Switchgear And Protection Laboratory	1.5
7	Dynamic Analysis And Performance Of Electric Machines Laboratory	1.5

Semester - II		
Sr. No.	**Course Name**	**Credits**
1	SMARD GRID	4
2	Power Electronics Application to Power System	4
3	Reactive Power Control In Power System	4
4	Power System Stability	4
5	Research Methodology	2
6	Elective	3
7	Power System Simulation Laboratory	1.5
8	Power Electronics Application to Power System Laboratory	1.5

Semester - III		
Sr. No.	Course Name	Credits
1	Dissertation Preliminary	18

Semester - IV		
Sr. No.	Course Name	Credits
1	Dissertation	20

Core Elective Subjects

Semester - V	
Sr. No.	Course Name
1	Renewable Energy Sources
2	High voltage Engineering
3	Digital Signal Processing

MTech (Thermal) Curriculum

Course Structure

Semester - I						
Sr. No.	Course Code	Course Name	Credit Structure			
			L	T	P	C
1	TE107	Thermal Aspects of Composite Materials	3	0	0	3
2	TE108	Finite Element in Fluid and Heat Transfer	3	0	0	3
3	TE109	Low Temperature Systems	3	0	0	3
4	TE110	Fuels & Combustion	3	0	0	3
5	TE111	Finite Element Analysis Laboratory	0	0	3	1.5
6	TE112	Fuels & Combustion Laboratory	0	0	3	1.5
7	TE113	Research Methodology	2	0	0	2
		Core Elective – I	3	0	0	3
		TOTAL	**17**	**0**	**6**	**20**

Semester - II						
Sr. No.	Course Code	Course Name	Credit Structure			
			L	T	P	C
1	TE114	Computational Fluid Dynamics	3	0	0	3
2	TE115	Design and Material Selection	3	0	0	3
3	TE116	Optimization Techniques	3	0	0	3
4	TE117	Renewable Energy Sources	3	0	0	3
5	TE118	Computational Fluid Dynamics Laboratory	0	0	3	1.5
6	TE119	Software Practices	0	0	3	1.5
		Core Elective – 2	3	0	0	3
		TOTAL	**15**	**0**	**6**	**18**

Semester - III						
Sr. No.	Course Code	Course Name	Credit Structure			
			L	T	P	C
1	TE202	M Tech Project -1 (Phase 1)-MTP1	0	0	36	18
		TOTAL	**0**	**0**	**36**	**18**

Semester - IV						
Sr. No.	Course Code	Course Name	Credit Structure			
			L	T	P	C
1	TE203	M. Tech Project -2 (Phase 2)-MTP2	0	0	36	18
		TOTAL	**0**	**0**	**36**	**18**

MTech (Structural) Curriculum

Course Structure

Semester - I		
Sr. No.	**Course Name**	**Credits**
SE103	Advanced Solid Mechanics	03
SE104	Computer aided structural analysis and Design	03
SE105	Advanced RCC Design	03
SE219	Numerical methods	02
SE107	Research Methodology	02
SE108	Earthquake Engineering (Core elective I)	03
SE112	Computer aided structural analysis and Design Laboratory	01
	TOTAL	**17**

Semester - II		
Sr. No.	**Course Name**	**Credits**
SE113	Finite element Method	3
SE106	Advanced foundation engineering I	3
SE115	Retrofitting and Strengthening of structures	3
SE116	Advanced design of steel structures	3
SE121	Seminar	2
SE122	Finite element Method laboratory	1
SE125	Advanced Concrete Technology (Core elective II)	3
	TOTAL	**18**

Semester - III		
Sr. No.	**Course Name**	**Credits**
SE114	Advanced Foundation Engineering II	3
SE220	Pre – stressed Concrete	3
PS225	Dissertation Part I	16
	TOTAL	**22**

Semester - IV		
Sr. No.	**Course Name**	**Credits**
PS230	Dissertation Part II	18
	TOTAL	**18**

MTech (CSE) Curriculum

Course Structure

Sr. No.	Name of Expert	Credit Structure			
		L	T	P	C
Semester - I					
1	Advanced Data Structures	3	0	0	3
2	Advanced Data Structures Laboratory	0	0	3	1.5
3	Advanced Database Management Systems	3	0	0	3
4	Advanced Database Management Systems Laboratory	0	0	3	1.5
5	Advanced Computer Networks	3	0	0	3
6	Advanced Computer Networks Laboratory	0	0	3	1.5
7	Cyber and Information Security	3	0	0	3
8	Cyber and Information Security Laboratory	0	0	2	1
9	Internet of Things	3	0	0	3
10	Internet of Things Laboratory	0	0	4	2
	TOTAL	**15**	**0**	**15**	**22.5**

Semester - II

Sr. No.	Course Name	Credit Structure			
		L	T	P	C
1	Mobile Application Development for IoT	3	0	0	3
2	Distributed Computing and Parallel Computing	3	0	0	3
3	Artificial Intelligence and Machine Learning	3	0	0	3
4	Research Methodology	2	0	0	2
5	Mobile Application Development for IoT Laboratory	0	0	3	1.5
6	Distributed Computing and Parallel Computing Laboratory	0	0	3	1.5
7	Artificial Intelligence and Machine Learning Laboratory	0	0	2	1
8	Research Methodology Laboratory	0	0	2	1
9	Core Elective-I	3	0	0	3
10	Core Elective-I Laboratory	0	0	3	1.5
	TOTAL	**14**	**0**	**13**	**20.5**

Semester - III

Sr. No.	Course Name	Credit Structure			
		L	T	P	C
1	M Tech Dissertation - I	0	0	16	8
2	Cloud Computing Concepts	3	0	0	3
3	Cloud Computing Laboratory	0	0	3	1.5
4	Core Elective-II	3	0	0	3
5	Core Elective-II Laboratory	0	0	3	1.5
	TOTAL	**6**	**0**	**22**	**17**

Semester - IV

Sr. No.	Course Name	Credit Structure			
		L	T	P	C
1	M. Tech Dissertation -II	0	0	40	20
	TOTAL	**0**	**0**	**40**	**20**

List of Core Electives

Sr. No.	Course Name	Credit Structure			
		L	T	P	C
Semester - II					
Core Elective-1 (Semester 2)					
1	Data Science using Advanced Python Programming	3	0	3	4.5
2	Embedded Systems	3	0	3	4.5
3	Green Computing	3	0	3	4.5
Core Elective-2 (Semester 3)					
1	Introduction to Deep Learning	3	0	3	4.5
2	Data Analytics	3	0	3	4.5
3	Robotics and Smart Systems	3	0	3	4.5
4	Quantum Computing	3	0	3	4.5