

MASTER OF TECHNOLOGY (M.Tech.)

Electrical Engineering

Programme Code: EEM

Duration: 2 Years

**Teaching & Evaluation Scheme of Examination
FROM SESSION: 2019-2020 Onwards**



Department of Electrical and Electronics Engineering

Faculty of Engineering & Technology

**CHHATRAPATI SHIVAJI MAHARAJ UNIVERSITY
PANVEL, NAVI MUMBAI**

Teaching and Evaluation Scheme for First Year M. Tech. (Power & Energy Systems)

Semester I											
Course Category	Course Code	Course Title	Hours/ Week			Theory Marks		Practical Marks		Total Marks	Credit
			L	T	P	IA	ESE	IA	ESE		
DC	EEMC101	Distributed Generation and Microgrid	3	-	-	30	70	-	-	100	3
DC	EEMC102	Renewable Energy Systems	3	-	-	30	70	-	-	100	3
DE	EEME1xx	Program Elective I	3	-	-	30	70	-	-	100	3
DE	EEME1xx	Program Elective II	3	-	-	30	70	-	-	100	3
DC	EEMR107	Research Methodology and IPR	2	-	-	30	70	-	-	100	2
AC	-----	Audit course 1	2	-	0	30	70	-	-	100*	0
DC	EEMC191	Distributed Generation and Microgrid	-	-	4	-	-	15	35	50	2
DC	EEMC192	Renewable Energy Systems	-	-	4	-	-	15	35	50	2
TOTAL			16	-	8	180	420	30	70	700	18

Semester II											
Course Category	Course Code	Course Title	Hours/ Week			Theory Marks		Practical Marks		Total Marks	Credit
			L	T	P	IA	ESE	IA	ESE		
DC	EEMC203	Digital Protection of Power System	3	-	-	30	70	-	-	100	3
DC	EEMC204	Power System Dynamics	3	-	-	30	70	-	-	100	3
DE	EEME2xx	Program Elective III	3	-	-	30	70	-	-	100	3
DE	EEME2xx	Program Elective IV	3	-	-	30	70	-	-	100	3
DC	EEMC205	Mini Project	-	-	4	30	70	-	-	100	2
AC	EEMA216	Audit course 2	2	-	-	30	70	-	-	100*	0
DC	EEMC293	Digital Protection of Power System	-	-	4	-	-	15	35	50	2
DC	EEMC294	Power System Dynamics	-	-	4	-	-	15	35	50	2
TOTAL			14	-	12	180	420	30	70	700	18

Teaching and Evaluation Scheme for Second Year M. Tech. (Power & Energy Systems)

Semester III											
Course Category	Course Code	Course Title	Hours/ Week			Theory Marks		Practical Marks		Total Marks	Credit
			L	T	P	IA	ESE	IA	ESE		
DE	EEME301	Program Elective – V	3	-	-	30	70	-	-	100	3
OE	----	Elective	3	-	-	30	70	-	-	100	3
DC	EEMC391	Dissertation Phase – I	-	-	20	-	-	50	150	200	10
TOTAL			6	-	20	60	140	50	150	400	16

Semester IV											
Course Category	Course Code	Course Title	Hours/ Week			Theory Marks		Practical Marks		Total Marks	Credit
			L	T	P	IA	ESE	IA	ESE		
DC	EEMC491	Dissertation Phase - II	-	-	32	-	-	100	200	300	16
TOTAL			-	-	32	-	-	100	200	300	16

Program Elective I						
EEME121	Engineering Optimization	EEME122	Power System Dynamics & Stability		EEME123	High Voltage Engineering
Program Elective II						
EEME124	Switched Mode Power Control	EEME125	Optimal and Adaptive Control		EEME126	FACTS and custom Power Devices
Program Elective III						
EEME227	Artificial intelligence I Techniques	EEME228	Smart Grids		EEME229	Energy Conversion
Program Elective IV						
EEME230	Electric and Hybrid Vehicles	EEME231	Power Quality		EEME232	Industrial Load Modeling and Control
Program Elective V						
EEME333	Power System Analysis	EEME334	Power system Transients		EEME335	Reliability Analysis and Protection

Induction Program : 2 weeks at the beginning of semester-I and 1 week at the beginning of semester-II

L = Lecture, **T** = Tutorial, **P** = Practical, **IA**=Internal Assessment, **ESE**=End Semester Examination

* This course will be offered as a compulsory audit course for which passing marks are 40% in End Semester Examination.

Open Elective

1. Business Analytics
2. Industrial Safety
3. Operations Research
4. Cost Management of Engineering Projects
5. Composite Materials
6. Waste to Energy

Audit course 1 & 2

1. English for Research Paper Writing
2. Disaster Management
3. Sanskrit for Technical Knowledge
4. Value Education
5. Constitution of India
6. Pedagogy Studies
7. Stress Management by Yoga
8. Personality Development through Life Enlightenment Skills.

Course Number Definition:

First two letters: Department Indicator

Third letter: Program Indicator

Fourth letter: Course Category Indicator (Basic Sciences: S; Humanities: H; Engineering Sciences and Arts: A; Departmental Core: C; Departmental Elective: E; Open Elective: O)

Fifth Character: Semester Indicator

Sixth and Seventh Character: Course Indicator