M.Tech. Electrical Engineering (Electrical Energy System) Course Structure

DEPARTMENT OF ELECTRICAL ENGINEERING

PEC, CHANDIGARH

Course/Credits Distribution of M.Tech. Electrical Engineering (Electrical Energy System)

SEMESTER-I					
Course Code	**Course Name**	**L**	**T**	**P**	**Credits**
EER1131	Program Core-I: Solar Energy Technologies	3	0	0	3
EER1132	Program Core-II: Energy System Economics and Sustainability	3	0	0	3
EER1133	Program Core-III: Power Electronics Converters for Renewable Energy Systems	2	0	2	3
	Deptt. Elective Course (DEC-I)	3	0	0	3
EER1001	Design of Experiments & Research Methodology	3	0	0	3
SCR1001/ SMR1001	Soft Computing/ Soft Skills and Management	3	0	0	3
Total					**18**

SEMESTER-II					
Course Code	**Course Name**	**L**	**T**	**P**	**Credits**
EER1134	Program Core-IV: Energy Management and Audit	3	0	0	3
EER1135	Program Core-V: Wind, Biomass, and Small Hydro Energy Systems	3	0	0	3
EER1136	Program Core-VI: Energy Storage Technologies	0	0	6	3
	Deptt. Elective Course (DEC-II)				
	Open Elective-I	3	0	0	3
EMR1001	Engineering Mathematics	3	0	0	3
EER4001	Industrial Tour				
Total					**18**

SEMESTER-III		
Course Code	**Course Name**	**Credits**
EER5001	Seminar and Report Writing	2
RPR6001	Research and Publication Ethics	2
EER7001	Dissertation-I	14
Total		**18**

SEMESTER-IV		
Course Code	**Course Name**	**Credits**
EER8001	Dissertation-II	18
Total		**18**

PROGRAM ELECTIVE-I				
Course Code	Course Name	L	T	P	Credits
EER1231	Hydrogen Energy and Fuel Cells	2	0	2	3
EER1232	Energy System Modelling	3	0	0	3
EER1233	Zero Energy Buildings	3	0	0	3
EER1234	Modern Control System	2	0	2	3
EER1235	Power System Operation and Control	3	0	0	3

PROGRAM ELECTIVE-II				
Course Code	Course Name	L	T	P	Credits
EER1281	Electric Vehicles	2	0	2	3
EER1282	Grid Integration of Renewable Energy Systems	2	0	2	3
EER1283	Distributed Energy Management of Electrical Power System	2	0	2	3
EER1284	Power System Stability and Control	3	0	0	3
EER1285	Power Quality	3	0	0	3

List of Open Elective Courses

OPEN ELECTIVE				
Course Code	Course Name	L	T	P	Credits
EER3001	Energy Management & Audit	3	0	0	3
EER3002	Zero Energy Buildings	3	0	0	3
EER3003	Electric Vehicles	2	0	2	3
EER3004	Hydrogen Energy and Fuel Cells	2	0	2	3
EER3005	Neural Networks & Fuzzy Logic	3	0	0	3
EER3006	Intelligent Control	3	0	0	3
EER3007	Renewable energy systems	3	0	0	3
EER3008	Digital Signal Processing & Applications	3	0	0	3
EER3009	Advance Mechatronics	3	0	0	3
EER3010	PLC and SCADA	3	0	0	3