### M.Tech. & Ph.D. Courses in DEPARTMENT OF ELECTRICAL ENGINEERING

## M. Tech. (Electrical Energy System)

#### **Program Core Courses**

TEE 531	Distributed Generation	3(3-0-0)
TEE 532	Digital Power System Protection	3(3-0-0)
TEE 533	Renewable Energy Systems and Applications	3(3-0-0)
TEE 534	Modelling and Analysis of Electrical Machines	3(3-0-0)
TEE 545	Power and Energy Lab	2(0-0-2)
TEE 546	Energy Systems Simulation Lab	2(0-0-2)
Seminar		
TEE 688	Master's Seminar I	1
TEE 689	Master's Seminar II	1
Program Electives		19

Will be taken from the list of post graduate courses of Electrical Engineering/other departments of I. College of Technology and Department of Mathematics, Statistics and Computer Science, CBSH as per recommendation of the advisory committee (500/600 series).

A relevant course of 3 credits can be taken from the MOOC courses available on SWAYAM portal in II. lieu of listed programme electives.

Common Courses					
BHS 611	Library and Information Services		1(1-1-0)		
TEC/TIP/	Research Methodology and IPR		2(2-0-0)		
TIT 649					
Research					
TEE 690	Master's Thesis Research		30		
		Total	70		

# **Ph.D.** (Electrical Engineering)

### **Program Core Courses**

Courses as advised by advisory committee from the list of post graduate courses of Electrical Engineering, 700 series			9
Seminar			
TEE 788	Doctoral Seminar I		1
TEE 789	Doctoral Seminar II		1
Supporting Courses			
BHS 652	Research Methodology I		1(1-0-0)
BPS 653	Research Methodology II		3(2-0-1)
BHS 654	Research and Publication Ethics		2(1-0-1)
Research			
TEE 790	Ph.D. Thesis Research		84
		Fotal	101

### List of the Post Graduate Courses

TEE 531	Distributed Generation	3(3-0-0)
TEE 532	Digital Power System Protection	3(3-0-0)
TEE 533	Renewable Energy Systems and Applications	3(3-0-0)
TEE 534	Modelling and Analysis of Electrical Machines	3(3-0-0)
TEE 545	Power and Energy Lab	2(0-0-2)

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TEE 546	Energy Systems Simulation Lab	2(0-0-2)
TEE 629	Power System Stability and Control	3(3-0-0)
TEE 630	Advanced High Voltage Engineering	3(3-0-0)
TEE 632	FACTS and Custom Power Devices	3(3-0-0)
TEE 633	Artificial Intelligence and Soft Computing Techniques	3(3-0-0)
TEE 635	Electric and Hybrid Vehicles	3(3-0-0)
TEE 636	Power Quality	3(3-0-0)
TEE 637	Advanced Power System Analysis	3(3-0-0)
TEE 638	Power System Transients	3(3-0-0)
TEE 639	SCADA System And Applications	3(3-0-0)
TEE 640	Power Apparatus Design	3(3-0-0)
TEE 641	Intelligent Control	3(3-0-0)
TEE 645	Electrical Machines and Drive System	3(3-0-0)
TEE 647	Nonlinear and Digital Control	3(3-0-0)
TEE 654	Computer Methods in Power Systems	3(3-1-0)
TEE 674	Extra High Voltage Direct Current Transmission	3(3-0-0)
TEE 686	Advanced Topics in Electrical Energy System	3(3-0-0)
TEE 687	Master's Special Problem	1 or 2
TEE 688	Master's Seminar I	1
TEE 689	Master's Seminar II	1
TEE 690	Master's Thesis Research	30
TEE 731	High Power Converters	3(3-0-0)
TEE 734	Smart Grids	3(3-0-0)
TEE 742	Optimal and Adaptive Control	3(3-0-0)
TEE 746	Special Electrical Machines	3(3-0-0)
TEE 748	Energy Management	3(3-0-0)
TEE 787	Doctoral Special Problem	1 or 2
TEE 788	Doctoral Seminar I	1
TEE 789	Doctoral Seminar II	1
TEE 790	Ph.D. Thesis Research	84