



SCHOOL OF RESEARCH & TECHNOLOGY

AN ISO 9001: 2008 Certified Institute

Course Title:	Flexible AC Transmission Systems (FACTS)		
Course Code:	MTPS-201		
Program:	M.Tech.	Semester: II	
Credits:	T-4	P-Nil	Total-4
Course Outcome			
1	Introduction to FACTS Controllers and detailed analysis.		
2	Introduction to voltage source converters and other related concepts.		
3	Understanding the static shunt compensation.		
4	Detailed study of SVC and STATCOM.		
5	Detailed study of static series compensators.		

Course Title:	Power Quality		
Course Code:	MTPS-202		
Program:	M.Tech	Semester : II	
Credits:	T-4	P-Nil	Total-4
Course Outcome			
1	Introduction to power quality and related terminologies.		
2	Detailed study of long & short term interruptions.		
3	Characterization of 1 & 3-phase voltage sag .		
4	Considerations of power quality in industrial power system.		
5	Power quality and EMC standards of mitigation of interruption and voltage sags.		

Course Title:	Energy Auditing, Conservation and Management		
Course Code:	MTPS-203		
Program:	M.Tech	Semester -II	
Credits:	T-4	P-Nil	Total-4
Course Outcome			
1	Basic principles and terminologies related to energy audit.		
2	Detailed study of energy management.		
3	Detailed study of energy efficient motors and their applications.		
4	Power factor improvement, lighting and energy instrument's analysis.		
5	Study of economic aspects and analysis in power systems.		

Course Title:	Advance Power System Protection Relays		
Course Code:	MTPS-204		
Program:	M.Tech	Semester - II	
Credits:	T - 04	P - Nil	Total - 04
Course Outcome			
1	General philosophy of protection and protective relays.		
2	Protection schemes in generators and transformers and other related elements.		
3	Introduction to transmission line and bus bar protection.		
4	Placement of reactors in power systems.		
5	Digital techniques of protection of power systems.		

Course Title:	HVDC Transmission Systems		
Course Code:	MTPS-205		
Program:	M.Tech	Semester- IV	
Credits:	T-04	P-00	Total-04
Course Outcome			
1	Provide an understanding of the basic principles of Antennas.		
2	Provide an overview of the fundamental characteristics techniques.		
3	Apply the analysis and design of Antenna design.		
4	Provide an overview of Special topics for antenna design and measurement.		
5	Provide an awareness of Measurement of various antenna parameters		

Course Title:	LAB-III (Advance Power System Protection Relays)		
Course Code:	MTPS-206		
Program:	M.Tech	Semester- IV	
Credits:	T-04	P-00	Total-04
Course Outcome			
1	Determination of Equivalent circuit of a 3-Winding Transformer.		
2	Fault Analysis in power systems.		
3	Performance and Testing of Generator Protection System .		
4	Performance and Testing of Transformer Protection System.		
5	Performance and Testing of Transmission Line Model.		

Course Title:	LAB-IV (MATLAB II)		
Course Code:	MTPS-207		
Program:	M.Tech.	Semester - II	
Credits:	T - Nil	P - 06	Total - 06
Course Outcome			
1	To understand the basic knowledge of MATLAB		
2	To be able to understand the use of MATLAB		
3	To get to know about the use of MATLAB in digital image processing		
4	To understand how to solve the MATLAB programming problems		
5	To understand the concept of simulation in MATLAB		