2 Year M. Tech Programme in Power Electronics and Drives

Course Structure

Semester-I				
S.No.	**Subject Code**	**Courses**	**L-T-P**	**Credits**
	THEORY			
1.	MEE505/MA402	Operational Research/Modeling and Simulation	3-1-0	4
2.	PED501	Power Electronics Devices and Magnetics	3-0-0	3
3.	PED503	Modeling of Electrical Apparatus	3-0-0	3
4.	PED505	DC Power Converters	3-0-0	3
5.		Elective-1	3-0-0	3
	PRACTICALS			
	PED511	Advance Power Electronics Lab	0-0-3	2
	PED533	Seminar	0-0-3	2
	GP501	General Proficiency		1
		Total		**21**
		Total Contact Hours		

Semester-II				
S.No.	**Subject Code**	**Courses**	**L-T-P**	**Credits**
	THEORY			
1.	MEE505/MA402	Operational Research/Modeling and Simulation	3-1-0	4
2.	PED502	Industrial Instrumentation and Automation	3-0-0	3
3.	PED504	Electric Drive Systems	3-0-0	3
4.	PED506	Digital Controllers Architecture and Interfacing	3-0-0	3
5.	PED508	AC Power Converter	3-0-0	3
	PRACTICALS			
	PED522	Minor Project	0-0-10	5
	PED544	Advance Electric Drives Lab	0-0-3	3
	GP502	General Proficiency		1
		Total		**25**
		Total Contact Hours		

Semester-III				
S.No.	**Subject Code**	**Courses**	**L-T-P**	**Credits**
	THEORY			
1.	PED601	Special Electromechanical Devices	3-0-0	3
2.	PED603	Power Quality	3-0-0	3
3.	PED605	Computer Aided Design of Electrical Apparatus	3-0-0	3
4.		Specialized Elective-II	3-0-0	3
5.		Specialized Elective-III	3-0-0	3
	PRACTICALS			
	PED611	Dissertation (Part-I)	2*-0-3	4
	PED633	Power Converter and Simulation Lab	0-0-3	2
	GP601	General Proficiency		1
		Total		**22**
		Total Contact Hours		

Semester-IV				
S.No.	**Subject Code**	**Courses**	**L-T-P**	**Credits**
	THEORY			
1.	PED622	Dissertation (Part-II)	----	21
2.	GP602	General Proficiency		1
		Total		**22**
		Total Contact Hours		

Total Program Credits: 90

Elective-I

PED551: Soft Computing Techniques
PED553: Wavelet methods for Engineering Applications
PED555: Optimization Techniques
PED557: Research Methodology
PED559: Nonlinear Control Systems

Specialized Elective-I

PED651: HVDC and Flexible AC Transmission Systems
PED653: Energy Storage Systems and Charging Control
PED655: Applications of Converters for Renewable Energy Systems
PED657: Smart Grid

Specialized Elective-II

PED671: Supervisory Control and Distribution Automation
PED673: Distribution Generation System & Design
PED675: Digital Signal Processing and its Applications
PED677: Robotics and Vehicular Power Electronics