

St. Peter's University

Chennai – 600 054.

M.E. (POWER ELECTRONICS AND DRIVES) PROGRAMME

Regulations and Syllabi (Effective from 2008 – 2009)

- 1. Eligibility:** Candidates who passed B.E. / B.Tech. (EEE / ECE / EIE / ICE / Electronics / Instrumentation Engineering) of the University or any other equivalent examination thereto are eligible for admission to Two Year M.E. (Power Electronics and Drives) Programme.
- 2. Duration:** Two Years Comprising 4 Semesters. Each semester has a minimum 90 working days with a minimum of 5 hours a day.
- 3. Medium:** English is the medium of instruction and examination.
- 4. Weightage for Continuous and End Assessment:** The weightage for Continuous Assessment (CA) and End Assessment (EA) be 25:75 unless the ratio is specifically mentioned in the scheme of Examinations.
- 5. Credit System:** Credit system be followed with 18 credits for each semester and each credit is equivalent to 25-30 hours of effective study provided in the Time Table.

6. Scheme of Examinations (for I to IV Semesters)

I Semester

COURSE CODE	COURSE TITLE	CREDIT	MARKS		
			CA	EA	TOTAL
THEORY					
108PEPT01	Applied Mathematics	3	25	75	100
108PEPT02	Modelling and Analysis of Electrical Machines	3	25	75	100
108PEPT03	Advanced Power Semiconductor Devices	3	25	75	100
108PEPT04	Analysis of Power Converters	3	25	75	100
108PEPT05	Analysis of Inverters	3	25	75	100
ELECTIVES					
108PEPE01	Special Electrical Machines	3	25	75	100
TOTAL		18	150	450	600

II Semester

COURSE CODE	COURSE TITLE	CREDIT	MARKS		
			CA	EA	TOTAL
THEORY					
208PEPT01	Computer Aided Design of Electrical Apparatus	3	25	75	100
208PEPT02	Solid State DC Drives	2	25	75	100
208PEPT03	Solid State AC Drives	2	25	75	100
208PEPT04	Embedded Control of Electrical Drives	3	25	75	100
ELECTIVES					
208PEPE03	High Voltage Direct Current Transmission	3	25	75	100
208PEPE02	Software Engineering & Architecture	3	25	75	100
PRACTICAL					
208PEPP01	Power Electronics and Drives Lab	2	25	75	100
TOTAL		18	175	525	700

III Semester

COURSE CODE	COURSE TITLE	CREDIT	MARKS		
			CA	EA	TOTAL
ELECTIVES					
308PEPE01	Computer Communication and Networks	2	25	75	100
308PEPE04	Flexible AC Transmission Systems	2	25	75	100
308PEPE07	Digital Signal Processing	2	25	75	100
PROJECT					
308PEPP01	Project Work – Phase – I	12	50	150	200
TOTAL		18	125	375	500

IV Semester

COURSE CODE	COURSE TITLE	CREDIT	MARKS		
			CA	EA	TOTAL
408PEPP01	Project Work (Phase - II)	18	100	300	400
	TOTAL	18	100	300	400

List of Electives for II & III Semesters:

S.No.	Electives
1.	Computer Communication and Networks
2.	Software Engineering and Architecture
3.	High Voltage Direct Current Transmission
4.	Flexible AC Transmission Systems
5.	Intelligent Control
6.	Linear and Non-linear Systems Theory
7.	Digital Signal Processing
8.	Digital Signal Processors

7. Passing Requirements: The minimum pass mark (raw score) be 50% in End Assessment (EA) and 50% in Continuous Assessment (CA) and End Assessment (EA) put together. No minimum mark (raw score) in Continuous Assessment (CA) be prescribed unless it specifically mentioned in the scheme of Examination.

8. Grading System: Grading System on a 10 Point Scale be followed with 1 mark = 0.1 Grade point to successful candidates as given below.

$$(a) \quad \text{Overall weighted Average Marks} = \frac{\text{Sum of Weighted Marks}}{\text{Total Credits}}$$

$$= \frac{\sum (CA+EA)C}{\sum C}$$

Where Weighted Marks in each course = Total Marks (CA and EA) multiplied by number of Credit

$$= (CA+EA)C$$

$$(b) \quad \text{Overall Grade Point Average (OGPA)} = \frac{\text{Sum of Weighted Grade Points}}{\text{Total Credits}}$$

$$= \frac{\sum (CA+EA)C}{\sum C}$$

Where Weighted Grade Points in each course = Grade Points (CA and EA) multiplied by Credits

$$= (CA+EA)C$$

The Overall Grade: The Overall Grade and Classification of all successful candidates be arrived at from the Overall Grade Point Average as stipulated in the following conversion Table.

(1 mark = 0.1 Grade Point on a 10 Point Scale)

Grade	Over all Grade Point Average(OGPA)	Over all weighted Average marks	Classification
0	9.00 to 10.00	90.00 to 100	First Class
A	8.00 to 8.99	80.00 to 89.99	First Class
B	7.00 to 7.99	70.00 to 79.99	First Class
C	6.00 to 6.99	60.00 to 69.99	First Class
D	5.00 to 5.99	50.00 to 59.99	Second Class
F	0.00 to 4.99	0.00 to 49.99	Fail

The Grade Sheets of successful candidates provide particulars such as (1) overall weighted Average Marks, (2) Overall Grade Point Average, (3) Overall Grade and (4) Overall classification.

9. Pattern of the Question Paper: The question paper for End Assessment will be set for three hours and for the maximum of 100 marks with following divisions and details.

Part A: 10 questions (with equal distribution to all units in the syllabus). Each question carries 2 marks.

Part B: 5 question with either or type (with equal distribution to all units in the syllabus). Each question carries 16 marks.

The total marks scored by the candidates will be reduced to the maximum prescribed in the Regulations.

10. Syllabus

Registrar