

ANNA UNIVERSITY, CHENNAI
AFFILIATED INSTITUTIONS
REGULATIONS – 2017
CHOICE BASED CREDIT SYSTEM
M.E. POWER ELECTRONICS AND DRIVES (FULL TIME)
CURRICULUM AND SYLLABUS I TO IV SEMESTERS

SEMESTER I

S.No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY								
1.	MA5155	Applied Mathematics for Electrical Engineers	FC	4	4	0	0	4
2.	PX5101	Power Semiconductor Devices	PC	3	3	0	0	3
3.	PX5151	Analysis of Electrical Machines	PC	3	3	0	0	3
4.	PX5152	Analysis and Design of Power Converters	PC	3	3	0	0	3
5.	IN5152	System Theory	PC	5	3	2	0	4
6.		Professional Elective I	PE	3	3	0	0	3
PRACTICALS								
7.	PX5111	Power Electronics Circuits Lab	PC	4	0	0	4	2
TOTAL				25	19	2	4	22

SEMESTER II

S.No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY								
1.	PX5201	Analysis and Design of Inverters	PC	3	3	0	0	3
2.	PX5202	Solid State Drives	PC	5	3	2	0	4
3.	PX5251	Special Electrical Machines	PC	3	3	0	0	3
4.	PX5252	Power Quality	PC	3	3	0	0	3
5.		Professional Elective II	PE	3	3	0	0	3
6.		Professional Elective III	PE	3	3	0	0	3
PRACTICALS								
7.	PX5211	Electrical Drives Laboratory	PC	4	0	0	4	2
8.	PX5212	Mini Project	EEC	4	0	0	4	2
TOTAL				28	18	2	8	23

SEMESTER III

S.No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY								
1.		Professional Elective IV	PE	3	3	0	0	3
2.		Professional Elective V	PE	3	3	0	0	3
3.		Professional Elective VI	PE	3	3	0	0	3
PRACTICALS								
4.	PX5311	Project Work Phase I	EEC	12	0	0	12	6
TOTAL				21	9	0	12	15

SEMESTER IV

SI.No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
PRACTICALS								
1.	PX5411	Project Work Phase II	EEC	24	0	0	24	12
TOTAL				24	0	0	24	12

TOTAL NO. OF CREDITS: 72

FOUNDATION COURSES(FC)

S.No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	MA5155	Applied Mathematics for Electrical Engineering	FC	4	4	0	0	4

PROFESSIONAL CORE(PC)

S.No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	PX5101	Power Semiconductor Devices	PC	3	3	0	0	3
2.	PX5151	Analysis of Electrical Machines	PC	3	3	0	0	3
3.	PX5152	Analysis and Design of Power Converters	PC	3	3	0	0	3
4.	PX5201	Analysis and Design of Inverters	PC	3	3	0	0	3
5.	IN5152	System Theory	PC	5	3	2	0	4
6.	PX5202	Solid State Drives	PC	5	3	2	0	4
7.	PX5251	Special Electrical Machines	PC	3	3	0	0	3
8.	PX5252	Power Quality	PC	3	3	0	0	3
9.	PX5111	Power Electronics Circuits Lab	PC	4	0	0	4	2
10.	PX5211	Electrical Drives Laboratory	PC	4	0	0	4	2

PROFESSIONAL ELECTIVES(PE)*

Semester I Elective I

S.No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	IN5091	Soft Computing Techniques	PE	3	3	0	0	3
2.	PX5001	Electromagnetic Field Computation and Modelling	PE	3	3	0	0	3
3.	PX5091	Control System Design for Power Electronics	PE	3	3	0	0	3

Semester II Elective II and III

S.No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	PX5002	Analog and Digital Controllers	PE	3	3	0	0	3

2.	PX5003	Flexible AC Transmission Systems	PE	3	3	0	0	3
3.	PX5004	Modern Rectifiers and Resonant Converters	PE	3	3	0	0	3
4.	PX5092	Electromagnetic Interference and Compatibility	PE	3	3	0	0	3
5.	ET5091	MEMS Technology	PE	3	3	0	0	3
6.	PS5071	Distributed Generation and Microgrid	PE	3	3	0	0	3

Semester III
Elective IV, V and VI

S.No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	PX5005	High Voltage Direct Current Transmission	PE	3	3	0	0	3
2.	PS5092	Solar and Energy Storage Systems	PE	3	3	0	0	3
3.	PX5071	Wind Energy Conversion Systems	PE	3	3	0	0	3
4.	PS5072	Energy Management and Auditing	PE	3	3	0	0	3
5.	PS5073	Electric Vehicles and Power Management	PE	3	3	0	0	3
6.	PX5006	Non Linear Dynamics for Power Electronics Circuits	PE	3	3	0	0	3
7.	PS5091	Smart Grid	PE	3	3	0	0	3
8.	PX5072	Power Electronics for Renewable Energy Systems	PE	3	3	0	0	3
9.	IN5079	Robotics and Control	PE	3	3	0	0	3
10.	PX5007	Non Linear Control	PE	3	3	0	0	3

Professional Electives are grouped according to elective number as was done previously.

EMPLOYABILITY ENHANCEMENT COURSES(EEC)

S.No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	PX5212	Mini Project	EEC	4	0	0	4	2
2.	PX5311	Project Work Phase I	EEC	12	0	0	12	6
3.	PX5411	Project Work Phase II	EEC	24	0	0	24	12