Sardar Patel College of Engineering Andheri (West), Mumbai 400 058
Year: 2017-18

M. Tech. (Power Electronics and Power System)

(Semester – I)

Sr. No.	Course	Code	Course Plan for Each Week (Hrs)			Credits	Evaluation (Points)						Total
			Lectures	Laboratory	Tutorial		T1	T2	End Semester	End Semester Weightage (%)	Termwork	Seminar	
1	Advanced Power Electronics	MTPX 111	3	-	2	4	20	20	100	60	25	--	125
2	Computer Application in Power System	MTPX 112	3	--	2	4	20	20	100	60	25	--	125
3	Modelling and Analysis of Electrical Machines	MTPX 113	3	--	2	4	20	20	100	60	25	--	125
4	Dynamics of Linear Systems	MTPX 114	3	--	2	4	20	20	100	60	25	--	125
5	Seminar-I*	MTPX 115	--	--	4	2	--	--	--	--	50	75	125
6	Elective – I	MTPX 116 to MTPX 119	3	--	2	4	20	20	100	60	25	--	125
Total			**15**	**--**	**14**	**22**	**--**	**--**	**--**	**--**	**--**	**--**	**750**

NOTE: (1) Test 1, Test 2 and end semester weightagepoints will be added and shown as the theory points in the mark sheet.

(2) For passing, student must secure minimum 50% points in each course with all heads of passing taken together and minimum 50% points in the end semester examination.

*****Student has to present a seminar, on a topic selected in consultation withassigned Faculty member, in the allotted seminar slot as per the academic calendar. Seminar-I will be examined by the Faculties.

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Evaluation process for Seminar –I

	Level of Topic selected	Reproduction of simulation results	Presentation	Suggested improvements in the presented work
Points	**15**	**15**	**35**	**10**

Elective – I Courses

Sr. No.	Code	Elective
1.	MTPX 116	Digital Simulation of Power Electronics System
2.	MTPX 117	Power System Planning and Reliability
3.	MTPX 118	Artificial Intelligence for Power System
4.	MTPX 119	DSP Control in Power Electronics

Duration for Test I and Test II**:** **01 Hour**
Duration for End Semester **:** **03 Hour**

Sardar Patel College of Engineering Andheri (West), Mumbai 400 058
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M. Tech. (Power Electronics and Power System)
(Semester – II)

Sr. No.	Course	Code	Course Plan for Each Week (Hrs)			Credits	Evaluation (Points)						Total
			Lectures	Laboratory	Tutorial		T1	T2	End Semester	End Semester Weightage (%)	Term work	Seminar	
1	Application of Power Electronics in Power System	MTPX 121	3	--	2	4	20	20	100	60	25	--	125
2	Advanced Control of Electrical Drives	MTPX 122	3	--	2	4	20	20	100	60	25	--	125
3	Power System Dynamics and Control	MTPX 123	3	--	2	4	20	20	100	60	25	--	125
4	Protection in Power System	MTPX 124	3	_	2	4	20	20	100	60	25	--	125
5	Hardware Lab	MTPX 125	--	--	4	2	--	--	--	--	50	75	125
6	Elective II	MTPX 126 to MTPX 129	3	--	2	4	20	20	100	60	25	--	125
Total			**15**	**--**	**14**	**22**	**--**	**--**	**--**	**--**	**--**	**--**	**750**

NOTE: (1) Test I, Test II and end semester weightage points will be added and shown as the theory points in the mark sheet.

(2) For passing, student must secure minimum 50% points in each course with all heads of passing taken together and minimum 50% points in the end semester examination.

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Year: 2017-18

Elective – II Courses

Sr. No.	Code	Elective
1.	MTPX 126	Network Principles and Protocols
2.	MTPX 127	Optimization Techniques
3.	MTPX 128	Application of Power Electronics in Renewable Energy System
4.	MTPX 129	Applied Nonlinear Control

Duration for Test I and Test II**: 01 Hour**
Duration for End Semester**: 03 Hour**

Sardar Patel College of Engineering Andheri (West), Mumbai 400 058
Year: 2017-18

M. Tech. (Power Electronics and Power System) (Semester – III)

Sr. No	Course	Code	Course Plan for Each Week (Hrs)			Credits	Evaluation (Points)		Total
			Lectures	Lab	Tutorial		Report	Seminar	
1	Seminar on Literature Review	MTPX231	--	--	$4^{\#}+12^{\$}$	8	50*	50*	100
2	Dissertation Stage-I Seminar	MTPX232	--	_	$2^{\#}+14^{\$}$	8	50*	50*	100
Total			**--**	**--**	**$6^{\#}+26^{\$}$**	**16**	**--**	**--**	**200**

* Examined by supervisor and at least one internal examiner. #Contact hours with mentor/supervisor/guide, $Self learning hours
For passing, Student must secure minimum 50% points in each Course with all headof passing taken together and minimum 50% points in the end semester examination.

M. Tech. (Power Electronics and Power System) (Semester – IV)

Sr. No	Course	Code	Course Plan for Each Week (Hrs)			Credits	Evaluation (Points)		Total
			Lectures	Lab	Tutorial		Report	Seminar	
1	Dissertation Stage-II Seminar (Pre-Synopsis)	MTPX241	--	--	$4^{\#}+12^{\$}$	8	50*	50*	100
2	Dissertation & Viva-Voce	MTPX242	--	_	$6^{\#}+18^{\$}$	12	100**	50**	150
Total			**--**	**--**	**$10^{\#}+30^{\$}$**	**20**	**--**	**--**	**250**

* Examined by supervisor and at least one internal examiner

** Examined by supervisor and one approved external examiner. #Contact hours with mentor/supervisor/guide, $Self learning hours For passing, Student must secure minimum 50% points in each Course with all headof passing taken together and minimum 50% points in the end semester examination.