



ST. VINCENT PALLOTTI COLLEGE OF ENGINEERING & TECHNOLOGY, NAGPUR

(An autonomous institution affiliated to Rashtrasant Tukadoji Maharaj Nagpur University)

M. Tech. Scheme of Examination & Syllabus 2026-27

POWER ELECTRONICS AND POWER SYSTEMS

Semester I

Sr No	Course Code	Course Title	TOTAL Hours			Credits	Maximum Marks		Total	Minimum Passing Marks	No. of Hrs. for ESE
			L	T	P		Continual Assessment	End Sem Examination			
1	26PE101T	E-Drive System, Design and Control Strategy for Electric Vehicles	4	-	0	4	40	60	100	50	3
2	26PE102T	Industrial Power System Analysis with AI Applications	4	-	0	4	40	60	100	50	3
3	26PE102P	Industrial Power System Analysis with AI Applications Lab	0	-	2	1	25	25	50	25	-
4	26PE103T	Program Elective-I	4	-	0	4	40	60	100	50	3
5	26PE104T	Program Elective-II	4	-	0	4	40	60	100	50	3
6	26PE105P	Technical Seminar-I & Research Paper Writing	-	-	6	3	100	-	100	50	-
7	26PE106P	Mini Project-I	-	-	6	3	100	-	100	50	-
Total			16	-	14	23	385	265	650	-	-

		JULY 2026	1.0	Applicable for 2026-27
Chairman - BoS	Dean - Academics	Date of Release	Version	



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Semester II

Sr No	Course Code	Course Title	TOTAL Hours			Credits	Maximum Marks		Total	Minimum Passing Marks	No. of Hrs for ESE
			L	T	P		Continual Assessment	End Sem Examination			
1	26PE201T	Advanced Power Electronics	4	-	0	4	40	60	100	50	3
2	26PE201P	Advanced Power Electronics Lab	0	-	2	1	25	25	50	25	-
3	26PE202T	Advanced Control of HVDC & FACTS Technologies	4	-	0	4	40	60	100	50	3
4	26PE203T	Program Elective – III	4	-	0	4	40	60	100	50	3
5	26PE204T	Program Elective – IV	4	-	0	4	40	60	100	50	3
6	26PE205P	Technical Seminar – II & IPR	-	-	6	3	100	-	100	50	-
7	26PE206P	Mini Project -II	-	-	6	3	100	-	100	50	-
Total			16	-	14	23	385	265	650	325	-

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Semester III

Sr No	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		Total	Minimum Passing Marks
			L	T	P		Continual Assessment	End Sem Examination		
1	26PE301P	Internship	-	-	24	12	200	100	300	150
2	26PE302P	Dissertation Phase-I	-	-	12	6	100	100	200	100
Total			-	-	36	18	300	200	500	250

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Semester IV

Sr No	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		Total	Minimum Passing Marks
			L	T	P		Continual Assessment	End Sem Examination		
1	26PE401P	Dissertation Phase-II	-	-	32	16	300	200	500	250
Total			-	-	32	16	300	200	500	250

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POWER ELECTRONICS AND POWER SYSTEMS

Professional Elective-I	
25PE103T (i)	Microcontroller-Based Embedded Systems for Electric Vehicles
25PE103T (ii)	Power Quality
Professional Elective-II	
25PE104T (i)	Substation Engineering - Design & Digital Concepts
25PE104T (ii)	Energy Storage Technologies

Program Elective-III	
26PE203T (i)	Advanced Power System Protection and Switchgear with AI Applications
26PE203T (ii)	IoT and It's Applications in Energy Sector
Program Elective-IV	
26PE204T (i)	Smart Grid Technologies with Cloud Integration
26PE204T (ii)	VLSI Design Automation

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