



**ST. VINCENT PALLOTTI COLLEGE OF ENGINEERING &
TECHNOLOGY, NAGPUR**

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

**B. Tech. Scheme of Examination & Syllabus 2022-23
ELECTRICAL ENGINEERING**

Scheme of Examination - THIRD SEMESTER

Sr No	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
			L	T	P		Continual Assessment	End Sem Examination	Total
1	EE301T	Network Analysis	3	1		4	30	70	100
2	EE 302T	Electrical Measurement and Instrumentation	4			4	30	70	100
3	EE302P	Electrical Measurement & Instrumentation Lab			2	1	25	25	50
4	EE303T	Electronics Devices and Circuits	3	1		4	30	70	100
5	EE303P	Electronics Devices and Circuits Lab			2	1	25	25	50
6	EE304T	Renewable Energy Sources	4			4	30	70	100
7	EE304P	Renewable Energy Sources Lab			2	1	25	25	50
8	AS301T	English for Engineers	2			2	15	35	50
9	AS302T	Constitution of India	2			0			
10	EE305P	Career Development-I *			2	0			
Total			18	2	8	21	210	390	600

* Career Development-I (Interpersonal Skills, Aptitude, and Logical Thinking)

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ELECTRICAL ENGINEERING**

Scheme of Examination - FOURTH SEMESTER

Sr No	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
			L	T	P		Continual Assessment	End Sem Examination	Total
1	AS401T	Applied Mathematics-III	3	1		4	30	70	100
2	EE401T	Electromagnetic Field	3	1		4	30	70	100
3	EE402T	Electrical Power System	4			4	30	70	100
4	EE403T	Electrical Machines	4			4	30	70	100
5	EE403P	Electrical Machines-Lab			2	1	25	25	50
6	EE404T	Programming in Electrical Engineering	4			4	30	70	100
7	EE404P	Programming in Electrical Engineering Lab			2	1	25	25	50
8	H 102	Universal Human Values – 2	3			3	30	70	100
9	EE405P	Technical Skill Development-I			2	1	50		50
10	EE406P	Career Development-II *			2	0			
			21	2	8	26	290	460	750

* Career Development-II (Interpersonal Skills, Aptitude, and Logical Thinking)

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**B. Tech. Scheme of Examination & Syllabus 2022-23
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Scheme of Examination - FIFTH SEMESTER

Sr No	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
			L	T	P		Continual Assessment	End Sem Examination	Total
1	EE501T	Power Electronics	3	1		4	30	70	100
2	EE501P	Power Electronics Lab			2	1	25	25	50
3	EE502T	Microprocessor and Microcontroller	3	1		4	30	70	100
4	EE502P	Microprocessor and Microcontroller Lab			2	1	25	25	50
5	EE503T	Open Elective - I	3			3	30	70	100
6	EE504T	Professional Elective - I	4			4	30	70	100
7	EE505T	Electrical Machine Design	4			4	30	70	100
8	EE506P	Technical Skill Development-II			2	1	50		50
9	EE507P	Career Development-III *			2	0			
10	H103-4T	Foundational Humanities Elective	2			0			
			19	2	8	22	250	400	650

* Career Development-III (Interpersonal Skills and Aptitude)

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	Open Elective - I
EE504T(i)	Modeling and Simulation
EE504T(ii)	Solar PV Energy Systems

	Professional Elective - I
EE505T(i)	Advanced Power System
ET505T(i)	Power Station Practice
ET505T(ii)	Signals & Systems
EE505T(ii)	Monitoring and Testing of Electrical Machines
EE505T(iv)	Electric Vehicle Architecture
EE505T(v)	Electrical Machines-II
EE505T(vi)	Project Management for Engineers (L&T EduTech)
EE505T(vii)	Instrumentation

	Foundational Humanities Elective
H-103	Development of Societies
H 104	Philosophy

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ELECTRICAL ENGINEERING**

Scheme of Examination - SIXTH SEMESTER

Sr No	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
			L	T	P		Continual Assessment	End Sem Examination	Total
1	EE601T	Switchgear & Protection	2	1		3	30	70	100
2	EE601P	Switchgear & Protection Lab			2	1	25	25	50
3	EE602T	Control System Engineering	3	1		4	30	70	100
4	EE602P	Control System Engineering Lab			2	1	25	25	50
5	EE603T	Professional Elective - II	4			4	30	70	100
6	EE604T	Professional Elective - III	4			4	30	70	100
7	EE605T	Open Elective-II	3			3	30	70	100
8	EE606P	Electrical Engineering Workshop			2	0			
8	EE607P	Project - I			4	2	50	50	100
9	EE608P	Career Development-IV*			2	0			
10	EE609P	Capstone Course-I **			2	1	50		50
			16	2	14	23	300	450	750

* Career Development – IV (Interpersonal Skills and Aptitude)

** Capstone Course – I (Comprehensive knowledge gained in Electrical Engineering)

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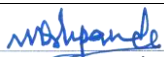
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ELECTRICAL ENGINEERING

	Professional Elective - II
EE603T(i)	Linear Electronics Circuit
ET603T(ii)	Digital Signal Processing
EE603T(iii)	Solar PV Energy Systems
ET603T(iv)	Electric Vehicle Drives
ET603T(v)	Energy Management and Audit
EE603T(vi)	Power System Stability and Analysis (L& T EduTech)
EE603T(vii)	HVDC Transmission system

	Professional Elective - III
EE604T(i)	Electrical Installation and Design
EE604T(ii)	Numerical Methods in Power System
EE604T(iii)	Electric Drives
EE 604T(iv)	Electric Vehicle Dynamics
EE 604T(v)	Applied Thermodynamics and Steam Turbines
EE604T(vi)	Utilisation of Electrical Energy
EE604T(vii)	Safety for Engineers (L& T EduTech)

	Open Elective - II
EE605T(i)	Instrumentation
EE605T(ii)	PLC and SCADA

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B. Tech. Scheme of Examination & Syllabus 2022-23 ELECTRICAL ENGINEERING

Scheme of Examination - SEVENTH SEMESTER

Sr No	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
			L	T	P		CAE	ESE	Total
1	EE701T	High Voltage Engineering	2	1		3	30	70	100
2	EE701P	High Voltage Engineering Lab			2	1	25	25	50
3	EE702P	Power System Simulation Lab			2	1	25	25	50
4	EE703T	Engineering Economics and Management	4			4	30	70	100
5	EE704T	Professional Elective - IV	2	1		3	30	70	100
6	EE705T	Open Elective - III	4			4	30	70	100
7	EE706P	Project - II			6	3	75	75	150
8	EE707P	Summer / Winter Internship *				2	0	50	50
9	EE708P	Capstone Course-II **			2	1	50		50
			12	2	12	22	295	455	750

* Summer / Winter Internship (Evaluation of 4-6 weeks Internship Completion till 6th Semester)

** Capstone Course – II (Comprehensive knowledge gained in Electrical Engineering)

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ELECTRICAL ENGINEERING

	Professional Elective - IV
EE704T(i)	Power Semiconductor based Drives
EE704T(ii)	Power Quality
EE704T(iii)	Advanced Control System
EE704T (iv)	Energy Storage Systems
EE704T(v)	Electrical Power Distribution Engineering & Automation (L& T EduTech)
EE704T(vi)	Flexible AC Transmission Systems
EE704T(vii)	Electrical Distribution System

	Open Elective - III
EE705T(i)	Energy Management & Audit
EE705T(ii)	Utilization of Electrical Energy

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**B. Tech. Scheme of Examination & Syllabus 2022-23
ELECTRICAL ENGINEERING**

Scheme of Examination - EIGHTH SEMESTER

Option A

Sr No	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
			L	T	P		Continual Assessment	End Sem Assessment	Total
1	EE801P	Project based on one semester internship in Industry/Research Institute/ National Laboratories/ Incubation Center	-	-	-	12	200	200	400
Total			-	-	-	12	200	200	400

***End Semester Examination will consist of evaluation of Seminar and Project Report**

Option B is available to students only after recommendation of the concerned Head of the department. The project and internship should contribute towards career development plan of the students.

Sr No	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
			L	T	P		Continual Assessment	End Sem Assessment	Total
1	EE802P	Institutional Internship	-	-	-	6	100	100	200
2	EE803P	Project - III	-	-	-	6	100	100	200
Total			-	-	-	12	200	200	400

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**B. Tech. Scheme of Examination & Syllabus 2022-23
ELECTRICAL ENGINEERING**

Scheme of Examination - Smart Grid (Honors)

Sr No	Sem	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
				L	T	P		Continual Assessment	End Sem Examination	Total
1	IV	EEH401T	Introduction to Smart Grid	4			4	30	70	100
2	V	EEH501T	Distributed Generation	4			4	30	70	100
3	VI	EEH601T	Advanced Power Electronics	3			3	30	70	100
4	VI	EEH601P	Advanced Power Electronics (Lab)			2	1	25	25	50
5	VII	EEH701T	Power System Dynamics , Control & Monitoring	4			4	30	70	100
6	VIII	EEH801P	Mini Project / Internship			8	4	50	50	100
				15	0	10	20	195	355	550

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**B. Tech. Scheme of Examination & Syllabus 2022-23
ELECTRICAL ENGINEERING**

Scheme of Examination –

Electrical and Automation Engineering for Buildings (Honors)

Powered by L & T EduTech

Sr No	Sem	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
				L	T	P		Continual Assessment	End Sem Examination	Total
1	IV	EEH401T	Campus to Corporate	4			4	30	70	100
2	V	EEH501T	Applied Industrial IoT	4			4	30	70	100
3	VI	EEH601T	Advanced electrical system design for buildings.	4			4	30	70	100
4	VII	EEH701T	Extra low voltage system design for infrastructure.	4			4	30	70	100
5	VIII	EEH801T	Finance for professionals	4			4	30	70	100
				20	0	0	20	150	350	500

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**B. Tech. Scheme of Examination & Syllabus 2022-23
ELECTRICAL ENGINEERING**

Scheme of Examination- Electric Vehicles (Minors)

Sr No	Sem	Course Code	Course Title	Hours per Week			Credits	Maximum Marks		
				L	T	P		Continual Assessment	End Sem Examination	Total
1	IV	EEM401T	Electric Vehicle Architecture	4			4	30	70	100
2	V	EEM501T	Electric Vehicle Drives	3			3	30	70	100
3	V	EEM501P	Electric Vehicle Simulation (Practical)			2	1	25	25	50
4	VI	EEM601T	Electric Vehicle Dynamics	4			4	30	70	100
5	VII	EEM701T	Battery Management Systems	4			4	30	70	100
6	VIII	EEM801P	Mini Project / Internship			8	4	50	50	100
				15	0	10	20	195	355	550


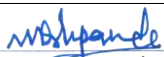
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