

DEPARTMENT OF ELECTRICAL ENGINEERING
CURRICULUM OF 2ND TO 4TH YEAR OF THE
UNDERGRADUATE ENGINEERING DEGREE PROGRAMME

SECOND YEAR FIRST SEMESTER

Course Code	Course Title	Category	Type	Contact L-T-P	Credits	Marks
FET/BS/B/Math/T/211	Mathematics-III	BS	Basic	2-1-0	3	100
EE/PC/B/T/212	Circuit Theory	PC	Basic	3-1-0	4	100
EE/ES/B/T/213	Electrical Engineering Materials	ES	Basic	3-0-0	3	100
EE/PC/B/T/214	Electrical Measurements & Measuring Instruments	PC	Basic	2-1-0	3	100
EE/PC/B/T/215	Electrical Machines-I	PC	Basic	2-1-0	3	100
EE/ES/B/ME/T/216	Engineering Thermodynamics & Heat Power	ES	Basic	3-0-0	3	100
EE/PC/B/S/211	Electrical Engineering Laboratory-I	PC	Basic	0-0-3	1.5	100
EE/PC/B/ME/S/212	Computer Aided Drafting	PC	Basic	0-0-3	1.5	100
Total					22	800

SECOND YEAR SECOND SEMESTER

Course Code	Course Title	Category	Type	Contact L-T-P	Credits	Marks
EE/PC/B/T/221	Electrical Instrumentation	PC	Basic	2-1-0	3	100
EE/PC/B/T/222	Electrical Machines-II	PC	Basic	2-1-0	3	100
EE/PC/B/T/223	Power Supply Systems	PC	Basic	2-1-0	3	100
EE/PC/B/T/224	Signals & Systems	PC	Basic	2-1-0	3	100
EE/PC/B/T/225	Sequential Systems & Microprocessors	PC	Basic	3-0-0	3	100
EE/PC/B/T/226	Field Theory	PC	Basic	2-1-0	3	100
EE/PC/B/S/221	Electrical Engineering Laboratory-II	PC	Basic	0-0-3	1.5	100
EE/PC/B/S/222	Circuits Laboratory	PC	Basic	0-0-3	1.5	100
Total					21	800

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THIRD YEAR FIRST SEMESTER

Course Code	Course Title	Category	Type	Contact L-T-P	Credits	Marks
EE/PC/B/T/311	Electrical Machines-III	PC	Basic	3-0-0	3	100
EE/PC/B/T/312	Power System Planning & Design	PC	Basic	3-0-0	3	100
EE/PC/B/T/313	Linear Control System	PC	Basic	2-1-0	3	100
EE/PC/B/T/314	Power Electronics	PC	Basic	2-1-0	3	100
EE/PC/B/T/315	Digital Signal Processing	PC	Basic	2-1-0	3	100
EE/PC/B/T/316	Programmable Logic & Microcontroller	PC	Basic	3-0-0	3	100
EE/PC/B/S/311	Electrical Engineering Laboratory-III	PC	Basic	0-0-3	1.5	100
EE/PS/B/S/312	Electrical Machine Design-I	PS	Basic	0-0-3	1.5	100
EE/PS/B/S/313	Modeling & Digital Simulation Laboratory	PS	Basic	0-0-3	1.5	100
Total					22.5	900

THIRD YEAR SECOND SEMESTER

Course Code	Course Title	Category	Type	Contact L-T-P	Credits	Marks
EE/PC/B/T/321	Power System Performance	PC	Basic	2-1-0	3	100
EE/PC/B/T/322	High Voltage Engineering	PC	Basic	2-1-0	3	100
EE/PC/B/T/323	Electrical Utilization & Illumination	PC	Basic	3-0-0	3	100
EE/PC/B/T/324	Electrical Drives	PC	Basic	3-0-0	3	100
EE/ES/H/T/325	Introduction to Statistical & Probabilistic Methods ^H	ES	Honours	3-1-0	4	100
	Special Paper – I ^H	PE	Honours	3-1-0	4	100
EE/PC/B/S/321	Electrical Engineering Laboratory-IV	PC	Basic	0-0-3	1.5	100
EE/PS/B/S/322	Power Electronics Design & Laboratory	PS	Basic	0-0-3	1.5	100
EE/PS/B/S/323	Power System Design	PS	Basic	0-0-3	1.5	100
EE/PC/B/S/324	Microprocessor & Microcontroller Laboratory	PC	Basic	0-0-3	1.5	100
Total					26	1000

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FOURTH YEAR FIRST SEMESTER

Course Code	Course Title	Category	Type	Contact L-T-P	Credits	Marks
EE/PC/B/T/411	Power System Protection & Switchgear	PC	Basic	2-1-0	3	100
EE/PC/B/T/412	Process Instrumentation and Control	PC	Basic	2-1-0	3	100
EE/PC/H/T/413	Principles of Communication Engineering & Computer Networks ^H	PC	Honours	3-1-0	4	100
	Elective Paper – I	PE	Basic	2-1-0	3	100
	Special Paper – II ^H	PE	Honours	3-1-0	4	100
	Open Elective – I	OE	Basic	3-0-0	3	100
EE/PC/B/S/411	Electrical Engineering Laboratory – V	PC	Basic	0-0-3	1.5	100
EE/PS/B/S/412	Elective Project & Computation – I	PS	Basic	0-0-3	1.5	100
EE/PS/B/S/413	Seminar – I	PS	Basic	0-0-3	1.5	100
EE/PS/B/S/414	Electrical Machine Design – II	PS	Basic	0-0-3	1.5	100
EE/PC/B/S/415	General Viva-Voce	PC	Basic	2-0-0	2	100
Total					28	1100

FOURTH YEAR SECOND SEMESTER

Course Code	Course Title	Category	Type	Contact L-T-P	Credits	Marks
	Elective Paper – II	PE	Basic	2-1-0	3	100
	Special Paper – III ^H	PE	Honours	3-1-0	4	100
EE/HS/B/T/423	Economics & Industrial Management	HS	Basic	3-0-0	3	100
	Open elective – II	OE	Basic	3-0-0	3	100
EE/PC/B/S/421	Electrical Engineering Laboratory – VI	PC	Basic	0-0-3	1.5	100
EE/PS/B/S/422	Elective Project & Computation – II	PS	Basic	0-0-3	1.5	100
EE/PS/B/S/423	Seminar – II	PS	Basic	0-0-3	1.5	100
EE/PS/B/S/424	Electrical Machine Design – III	PS	Basic	0-0-3	1.5	100
Total					19	800

Note: Students have to select **any one** of the following six Specializations. The subjects **Elective – I & Elective – II, Elective Project & Computation – I, Elective Project & Computation – II, Seminar – I & Seminar – II** will be assigned accordingly.

- A. Control Systems
- B. High Voltage Engineering
- C. Electrical Machines & Drives
- D. Electrical Measurements & Instrumentation
- E. Electrical Power Systems
- F. Illumination Engineering

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List of Elective Paper – I

Course Code	Subject Name
EE/PE/B/T/414A	Digital Control Techniques
EE/PE/B/T/414B	High Voltage Technique – I
EE/PE/B/T/414C	Special Electrical Machines & Drives
EE/PE/B/T/414D	Advanced Instrumentation – I
EE/PE/B/T/414E	Advanced Power Systems Analysis
EE/PE/B/T/414F	Illumination Science and Lighting Design

List of Elective Paper – II

Course Code	Subject Name
EE/PE/B/T/421A	Advanced Control Theory
EE/PE/B/T/421B	High Voltage Technique – II
EE/PE/B/T/421C	Advanced Electrical Machine Modelling & Analysis
EE/PE/B/T/421D	Advanced Instrumentation – II
EE/PE/B/T/421E	Advanced Topics in Power Systems
EE/PE/B/T/421F	Advanced Lighting Calculation and Design

List of Special Paper – I

Course Code	Subject Name
EE/PE/H/T/326A	Nonlinear and Optimal Control
EE/PE/H/T/326B	Condition Monitoring of Electrical Systems
EE/PE/H/T/326C	Energy Systems

List of Special Paper –II

Course Code	Subject Name
EE/PE/H/T/415A	Reliability Engineering
EE/PE/H/T/415B	Solid State Lighting System
EE/PE/H/T/415C	Advanced Computing Techniques

List of Special Paper –III

Course Code	Subject Name
EE/PE/H/T/422A	Introduction to Nano- Biotechnology
EE/PE/H/T/422B	Principles of Software Engineering
EE/PE/H/T/422C	Bio-Medical Instrumentation