Bachelor of Technology in Electrical and Electronics Engineering
School of Electronics Engineering

Programme Credit Structure	Credits
University Core Courses	**80**
Programme Core Courses	**40**
Programme Elective / Spl. Elective	**20**
University Elective	**20**
Total Graded Credit Requirement	**160**

University Core				**80**
		T	**P**	**C**
MAT1001	Calculus for Engineers	3	2	4
MAT1002	Applications of Differential and Difference Equations	4	0	4
MATXXXX	Probability and Statistics	3	2	4
PHYXXXX	Physics of Semiconductor Devices	3	2	4
CHY1009	Chemistry and Environmental Studies	3	2	4
CSE1012	Problem Solving using Python	3	2	4
CSE2005	Object Oriented Programming using JAVA	3	5	4
CSE2001	Data Structures and Algorithms	3	2	4
EEEXXXX	Fundamentals of Circuit Theory	3	2	4
ENG1001/ ENG1002	English for Essential Communication/ English for Effective Communication	2	2	3
ENG1002/ ENG2001	English for Effective Communication/ English for Professional Communication	2	2	3
FRLxxxx	Foreign Language	2	0	2
MGT1040	Entrepreneurship	3	2	4
MGT1001	Ethics and Values	0	2	2
	Indian Studies	2	0	2
STSxxxx	Qualitative and Quantitative Skills Practice I	3	0	1
STSxxxx	Qualitative and Quantitative Skills Practice II	3	0	1
BIC4002	Industrial Internship/ Senior Design Project	0	0	12
CAP4001	Capstone	0	0	6
SIT1001	Summer Internship	0	0	2
ECS2002	Engineering Clinics - System Design	0	4	2
ECS3001	Engineering Clinics - Real Time System	0	4	2
EXCXXXX	Extracurricular Activities			2

Programme Core				**40**
EEE1XXX	Digital Logic Design	3	2	4
EEE1XXX	Electromagnetic Field Theory	4	0	4
EEE2XXX	Analog Electronics	3	2	4
EEE2XXX	Electrical Machines (DC & AC)	3	2	4
EEE2XXX	Microcontrollers and Embedded C	3	2	4
EEE2XXX	Control Systems	3	2	4
EEE2XXX	Power Systems Engineering	3	2	4
EEE2XXX	Power Electronics	3	2	4
EEE2XXX	Power System Analysis	3	2	4
EEE3XXX	Measurements and Instrumentation	4	0	4

Programme Electives				**20**
EEEXXXX	Electric Drives	3	2	4
EEEXXXX	VLSI Design	3	2	4
EEEXXXX	Artificial Intelligence and Machine Learning for Electrical Systems	3	2	4
EEEXXXX	Renewable and Sustainable Energy Systems	3	2	4
EEEXXXX	Electric and Hybrid Vehicles	4	0	4
EEEXXXX	High Voltage Engineering and Insulation Technology	4	0	4
EEEXXXX	Smart Grid and SCADA Systems	3	2	4
EEEXXXX	Power Quality and FACTS Devices	3	2	4
EEEXXXX	Embedded Linux and Real-Time Operating Systems (RTOS)	3	2	4
EEEXXXX	Switched Mode Power Supplies (SMPS) and Resonant Converters	3	2	4
EEEXXXX	Industrial Automation and Process Control	3	2	4
EEEXXXX	Power System Protection	4	0	4

University Electives	**20**
Compulsory for PAT Registered Students	
CSE2025	AWS Solution Architecture
CSE1022	Introduction to Programming
STS3006	Competitive Coding I
STSXXX	Qualitative and Quantitative Skills Practice III
STSXXX	Competitive Coding II
STSXXX	Qualitative and Quantitative Skills Practice IV

Engineering |Sciences | Humanities | Social Sciences | Liberal arts | Economics | Finance | Management

Honours Degree (20 credits) - Students can opt for an Honours Degree" in the same discipline by earning 20 credits in addition to the minimum credit requirement of the Undergraduate Degree from the courses listed in the Honours options.

Minors Degree (20 credits) - Students can opt for a "Minor Degree" in other disciplines 20 credits in addition to the mini-mum credit requirement of the Undergraduate Degree from the courses listed in the Minor options.

Double Major Degree (40 credits) -Students can opt for a “Double Major" in other disciplines by earning 40 credits in addition to the minimum credit requirement of the Undergraduate Degree from the courses listed in the Second Major options.