

SREE SAKTHI ENGINEERING COLLEGE

(Autonomous)

Ooty Main Road, Karamadai, Coimbatore – 641 104

**(Affiliated to Anna University & Approved by AICTE, Accredited
by NAAC)**



B. E (Department of Electrical and Electronics Engineering)

(CHOICE BASED CREDIT SYSTEM)

CURRICULUM & SYLLABI

REGULATIONS 2024

SREE SAKTHI ENGINEERING COLLEGE

Vision:

To be recognized as an international leader in engineering education, research and the application of knowledge to benefit society globally.

Mission:

To develop high quality technical education and personnel with a sound footing on basic engineering principles, technical and managerial skills, innovative research capabilities and exemplary professional conduct to lead and to use technology for the progress of mankind, adapting themselves to changing technological environment with the highest ethical values as the inner strength.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Vision:

To be a nationally recognized department for excellence in Electrical and Electronics Engineering education and research, driving innovations in energy systems, smart mobility, and sustainable technologies for societal transformation.

Mission:

- M1:** To provide a strong foundation in Electrical Circuits, Machines, Power Electronics and Control Systems through Outcome-Based Education.
- M2:** To cultivate research-driven innovation in Power Systems, Smart Grid technology, Electric Mobility, and Renewable Energy Integration.
- M3:** To encourage adaptability to emerging energy technologies through continuous learning, certifications, and hands-on project work.
- M4:** To build strategic partnerships with utilities, automation industries and research labs for collaborative problem-solving.
- M5:** To foster social responsibility and environmental stewardship through energy-efficient solutions and community-centric engineering practices.

B. E (DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING)**PROGRAMME EDUCATIONAL OBJECTIVE (PEO's)**

After few years of graduation, the graduates of B.E. - Electrical and Electronics Engineering will be able to

PEO 1	Professional Enhancement: Graduates will excel in core areas of Electrical and Electronics Engineering and related fields applying their technical knowledge and skills to solve complex Engineering problems in Industry, Research and Higher Education.
PEO 2	Research and Innovation Initiatives: will pursue advanced studies and engage in Research to develop innovative solutions in emerging areas of Electrical Sciences, Sustainable Energy Systems, Smart Technologies and Interdisciplinary applications, thereby contributing to scientific advancement and societal development.
PEO 3	Developing Entrepreneurship Skills: Graduates of the Electrical and Electronics Engineering program will develop entrepreneurial skills and innovative thinking to identify opportunities, create sustainable solutions and establish successful ventures in Electrical, Electronics and allied domains thereby contributing to the economic growth and societal development.

B. E. (DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING)**PROGRAMME OUTCOMES (PO's)**

On completion of the programme, the engineering graduate shall acquire the following

Program Outcomes POs		Graduates of Electrical and Electronics Engineering will be able to
PO1	Engineering knowledge	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	Problem analysis	Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences

PO3	Design/development of solutions	Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO4	Conduct investigations of complex problems	Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO5	Modern tool usage	Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
PO6	The engineer and society	Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	Environment and sustainability	Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8	Ethics	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	Individual and team work	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	Communication	Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO11	Project Management and Finance	Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO12	Life-long learning	Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

B. E. (DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING)**PROGRAMME SPECIFIC OUTCOMES (PSO's)**

On successful completion of the EEE degree programme, the Engineering graduate shall exhibit the following

Program Specific Outcomes PSOs	Graduates of Electrical and Electronics Engineering will be able to
PSO1	Foundation of Electrical Engineering: Ability to understand the principles and working of electrical components, circuits, systems and control that are forming a part of power generation, transmission, distribution, utilization, conservation and energy saving. Students can assess the power management, auditing, crisis and energy saving aspects.
PSO2	Foundation of Analytical Skills: Ability to apply mathematical methodologies to solve problems related with electrical engineering using appropriate engineering tools and algorithms.
PSO3	Computing and Research Ability: Ability to use knowledge in various domains to identify research gaps and hence to provide solution which leads to new ideas and innovations.

Mapping of Programme Educational Objective (PEO) and Programme Outcome (PO):

PEO's	PO's												PSO's		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
I	3	3	3	3	3	2	1	1	2	2	2	3	3	3	3
II	2	3	2	3	2	1	1	3	3	1	3	3	2	3	1
III	3	3	3	2	2	1	1	1	1	1	2	2	3	2	2
IV	3	3	3	3	2	1	1	1	2	1	2	3	3	2	2
V	3	3	3	3	2	2	2	2	2	1	3	3	3	3	2

(1 – Low, 2 – Medium, 3 – High)

Mapping of Course Outcome (CO) and Programme Outcome (PO):

(1 – Low, 2 – Medium, 3 – High, " – " – No Correlation)

[illegible]

SSEC –B.E. (Department of EEE)

II Year	Semester III	Transforms and Partial Differential Equations	3	3	1	1	-	-	-	-	2	-	-	1	-	-	-
		Electromagnetic Theory	3	2	1	-	-	-	1	1	-	-	-	1	3	2	1
		Digital Logic Circuits	2	2	2	1	-	-	-	1	-	-	-	1	2	-	1
		Electron Devices and Circuits	2	2	3	2	-	-	-	1	-	-	-	1	3	-	1
		Electrical Machines - I	2	3	1	1	-	-	-	1	-	-	-	1	3	2	2
		Data Structures and OOPS	1	1	2	1	1	-	-	-	-	-	-	1	1	1	-
		Career Development Skills - III	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Mini Project - I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Mandatory Course - I*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Semester IV	Statistics and Numerical Methods	3	3	1	1	-	-	-	-	2	-	2	1	-	-	-
		Environmental Science and Sustainability	3	1	1	1	-	-	-	-	2	-	2	1	-	-	-
		Measurements and Instrumentation	3	2	2	2	-	-	2	2	-	2	-	3	3	3	3
		Microprocessors and Micro controllers	3	3	2	1	2	-	-	-	1	1	-	1	3	3	3
		Linear Integrated Circuits and Applications	2	2	3	2	1	-	-	1	-	-	-	1	2	1	-
		Electrical Machines - II	3	3	2	3	-	-	-	1	-	-	-	-	2	1	-
		Career Development Skills - IV	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Mini Project - II	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		Summer Internship - I	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
III Year	Semester V	Control Systems	3	3	3	2	-	-	-	-	-	-	-	2	3	2	1

[illegible]

		Mandatory Course - III*	-	-	-	-	-	-	-	-	-	-	SSEC –B.E. (Department of EEE)					-	-	-
IV Year	Semester VII	Industrial Automation using PLC and SCADA	3	3	2	2	1	-	-	1	-	1	2	-	2	2	1			
		Professional Ethics and Human Values	1	2	2	-	-	3	2	3	2	1	1	1	1	1	-			
		Professional Elective V*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
		Open Elective III*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
		Open Elective IV*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
		Career Development Skills - VII	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
		Project work Phase - I	3	3	3	3	3	2	2	2	3	3	3	3	-	-	-			
	Semester VIII	Professional Elective - VI*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
		Project work Phase II	3	3	3	3	3	2	2	2	3	3	3	3	-	-	-			

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B. E (ELECTRICAL AND ELECTRONICS ENGINEERING)

CURRICULUM STRUCTURE

CATEGORY	PROPOSED MINIMUM CREDITS
Foundation Core Courses (FCC)	
a) Humanities, Social Sciences and Management Courses (HSMC)	12
b) Basic Science Courses (BSC)	28
c) Engineering Science Courses (ESC)	16
Professional Core Courses (PCC)	58
Professional Elective Courses (PEC)	18
Open Elective Courses (OEC)	12
Employability Enhancement Courses (EEC)	21
Mandatory Courses (MC)	No Credit
TOTAL MINIMUM CREDITS	165

COURSE TYPOLOGY

REFERENCE	COURSE TYPE
T	Theory
TP	Theory-cum-Practical
P	Practical

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Semester I

Sl. No	Course Code	Course Name	Category	Type	Contact Periods / Week	L	T	P	Credits
1.	24HSM101	Professional English I	HSMC	T	3	3	0	0	3
2.	24BSC101	Matrices and Calculus	BSC	T	4	3	1	0	4
3.	24BSC102	Engineering Physics	BSC	T	3	3	0	0	3
4.	24ESC102	Basic Civil and Mechanical Engineering	ESC	T	3	3	0	0	3
5.	24ESC103	Engineering Graphics	ESC	T	6	2	4	0	4
6.	24HSM102	Heritage of Tamils	HSMC	T	1	1	0	0	1
7.	24BSC121	Engineering Physics Laboratory	BSC	P	4	0	0	4	2
8.	24CDC101	Career Development Skills I	EEC	T	1	1	0	0	1
9.	24INP101	Induction Programme	-	-	-	-	-	-	0
Total					25	16	5	4	21

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Semester II

Sl. No	Course Code	Course Name	Category	Type	Contact Periods / Week	L	T	P	Credits
1.	24HSM103	Professional English II	HSMC	T	3	3	0	0	3
2.	24BSC104	Random Process and Linear Algebra	BSC	T	4	3	1	0	4
3.	24BSC103	Engineering Chemistry	BSC	T	3	3	0	0	3
4.	24ESC111	Problem Solving and Python Programming	ESC	TP	5	3	0	2	4
5.	24EEC111	Electric Circuit Analysis	PCC	TP	5	3	0	2	4
6.	24HSM104	Tamils and Technology	HSMC	T	1	1	0	0	1
7.	24BSC122	Engineering Chemistry Laboratory	BSC	P	4	0	0	4	2
8.	24ESC121	Engineering Practices Laboratory	ESC	P	4	0	0	4	2
9.	24CDC102	Career Development Skills II	EEC	T	1	1	0	0	1
Total					30	17	1	12	24

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Semester III

Sl. No	Course Code	Course Name	Category	Type	Contact Periods / Week	L	T	P	Credits
1.	24BSC201	Transforms and Partial Differential Equations	BSC	T	4	3	1	0	4
2.	24EEC201	Electromagnetic Theory	PCC	T	4	3	1	0	4
3.	24EEC202	Digital Logic Circuits	PCC	T	3	2	1	0	3
4.	24EEC211	Electron Devices and Circuits	PCC	TP	5	3	0	2	4
5.	24EEC212	Electrical Machines I	PCC	TP	5	3	0	2	4
6.	24ESC214	Data Structures and OOPS	ESC	TP	4	2	0	2	3
7.	24CDC201	Career Development Skills III	EEC	T	1	1	0	0	1
8.	24CDC221	Mini Project I	EEC	P	2	0	0	2	1
9.	24MAC***	Mandatory Course I*	MC	T	1	1	0	0	0
Total					29	18	3	8	24

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Semester IV

Sl. No	Course Code	Course Name	Category	Type	Contact Periods / Week	L	T	P	Credits
1.	24BSC203	Statistics and Numerical Methods	BSC	T	4	3	1	0	4
2.	24BSC207	Environmental Science and Sustainability	BSC	T	2	2	0	0	2
3.	24EEC203	Measurements and Instrumentation	PCC	T	3	3	0	0	3
4.	24EEC213	Microprocessors and Microcontrollers	PCC	TP	5	3	0	2	4
5.	24EEC214	Linear Integrated Circuits and Applications	PCC	TP	5	3	0	2	4
6.	24EEC215	Electrical Machines II	PCC	TP	5	3	0	2	4
7.	24CDC202	Career Development Skills IV	EEC	T	1	1	0	0	1
8.	24CDC222	Mini Project II	EEC	P	2	0	0	2	1
9.	24MAC221	Summer Internship I	MC	P	0	0	0	0	0
Total					27	18	1	8	23

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Semester V

Sl. No	Course Code	Course Name	Category	Type	Contact Periods / Week	L	T	P	Credits
1.	24EEC301	Control Systems	PCC	T	4	3	1	0	4
2.	24EEC302	Transmission and Distribution	PCC	T	4	3	1	0	4
3.	24EEC311	Power Electronics	PCC	TP	4	2	0	2	3
4.	24EEP***	Professional Elective I*	PEC	T/TP	3	3	0	0	3
5.	24EEP***	Professional Elective II*	PEC	T/TP	3	3	0	0	3
6.	24\$\$\$***	Open Elective I*	OEC	T/TP	3	3	0	0	3
7.	24EEC321	Control Systems Laboratory	PCC	P	4	0	0	4	2
8.	24CDC301	Career Development Skills V	EEC	T	1	1	0	0	1
9.	24CDC321	Mini Project III	EEC	P	2	0	0	2	1
10.	24MAC***	Mandatory Course II*	MC	T	1	1	0	0	0
Total					29	19	2	8	24

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Semester VI

Sl. No	Course Code	Course Name	Category	Type	Contact Periods / Week	L	T	P	Credits
1.	24EEC303	Power System Analysis	PCC	T	3	3	0	0	3
2.	24EEC304	Power System Operation Control	PCC	T	4	3	1	0	4
3.	24\$\$\$***	Open Elective II*	OEC	T/TP	3	3	0	0	3
4.	24EEP***	Professional Elective III*	PEC	T/TP	3	3	0	0	3
5.	24EEP***	Professional Elective IV*	PEC	T/TP	3	3	0	0	3
6.	24HSM3**	Management Elective*	HSMC	T	2	2	0	0	2
7.	24EEC322	Power System Laboratory	PCC	P	4	0	0	4	2
8.	24CDC302	Career Development Skills VI	EEC	T	1	1	0	0	1
9.	24CDC322	Mini Project IV	EEC	P	2	0	0	2	1
10.	24MAC321	Summer Internship II	MC	P	0	0	0	0	0
11.	24MAC***	Mandatory Course III*	MC	T	1	1	0	0	0
Total					26	19	1	6	22

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Semester VII

Sl. No	Course Code	Course Name	Category	Type	Contact Periods / Week	L	T	P	Credits
1.	24EEC401	Industrial Automation using PLC and SCADA	PCC	T	3	3	0	0	3
2.	24HSM402	Professional Ethics and Human Values	HSMC	T	2	2	0	0	2
3.	24EEP***	Professional Elective V*	PEC	T/TP	3	3	0	0	3
4.	24\$\$\$***	Open Elective III*	OEC	T	3	3	0	0	3
5.	24\$\$\$***	Open Elective IV*	OEC	T	3	3	0	0	3
6.	24CDC401	Career Development Skills VII	EEC	T	1	1	0	0	1
7..	24CDC422	Project work Phase I	EEC	P	8	0	0	8	4
Total					23	15	0	8	19

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Semester VIII

Sl. No	Course Code	Course Name	Category	Type	Contact Periods / Week	L	T	P	Credits
1.	24EEP***	Professional Elective VI*	PEC	T	3	3	0	0	3
2.	24CDC423	Project work Phase II	EEC	P	12	0	0	12	6
Total					15	3	0	12	9

PROFESSIONAL ELECTIVE COURSES**PROFESSIONAL ELECTIVE COURSES I, II, III**

Sl. No	Course Code	Course Name	Category	Type	Contact Periods / Week	L	T	P	Credits
1.	24EEP001	Embedded Control for Electric Drives	PEC	T	3	3	0	0	3
2.	24EEP002	Digital Signal Processing	PEC	T	3	3	0	0	3
3.	24EEP003	VLSI Design	PEC	T	3	3	0	0	3
4.	24EEP004	Protection and Switchgear	PEC	T	3	3	0	0	3
5.	24EEP005	Analysis of Electrical Machines	PEC	T	3	3	0	0	3
6.	24EEP006	HVDC and FACTS	PEC	T	3	3	0	0	3
7.	24EEP007	Smart System Automation	PEC	T	3	3	0	0	3
8.	24EEP101	MEMS & NEMS	PEC	TP	4	2	0	2	3
9.	24EEP102	Electric Vehicle Design, Mechanics and Control	PEC	TP	4	2	0	2	3
10.	24EEP103	Electrical Drives	PEC	TP	4	2	0	2	3
11.	24EEP104	Embedded System Design	PEC	TP	4	2	0	2	3
12.	24EEP105	Embedded C programming	PEC	TP	4	2	0	2	3
Total					41	31	0	10	36

PROFESSIONAL ELECTIVE COURSES IV, V, VI

Sl. No	Course Code	Course Name	Category	Type	Contact Periods / Week	L	T	P	Credits
1.	24EEP008	Power System Transients	PEC	T	3	3	0	0	3
2.	24EEP009	Smart Grid	PEC	T	3	3	0	0	3
3.	24EEP010	Intelligent control of Electric	PEC	T	3	3	0	0	3
4.	24EEP011	Under Ground Cable Engineering	PEC	T	3	3	0	0	3
5.	24EEP012	Special Electrical Machines	PEC	T	3	3	0	0	3
6.	24EEP013	EHVAC Transmission	PEC	T	3	3	0	0	3
7.	24EEP014	Principles of Robotics	PEC	T	3	3	0	0	3
8.	24EEP015	High Voltage Engineering	PEC	T	3	3	0	0	3
9.	24EEP106	Design of Motor and Power Converters for Electric Vehicles	PEC	TP	4	2	0	2	3
10.	24EEP107	Control of Power Electronic Circuits	PEC	TP	4	2	0	2	3
11.	24EEP108	IoT Concepts and Applications	PEC	TP	4	2	0	2	3
12.	24EEP109	Power Electronics for Renewable Energy Systems	PEC	TP	4	2	0	2	3
Total					40	32	0	8	36

OPEN ELECTIVE COURSES**OPEN ELECTIVES OFFERED BY THE PARENT DEPARTMENT: (B. E- ELECTRICAL AND ELECTRONICS ENGINEERING)**

Sl. No	Course Code	Course Name	Category	Type	Contact Periods / Week	L	T	P	Credits
1.	24EE0001	Sustainable and Environmental Friendly HV Insulation System	OEC	T	3	3	0	0	3
2.	24EE0002	Smart Grid	OEC	T	3	3	0	0	3
3.	24EE0003	Hybrid Energy Technology	OEC	T	3	3	0	0	3
4.	24EE0004	Renewable Energy System	OEC	T	3	3	0	0	3
5.	24EE0005	Flexible AC Transmission Systems	OEC	T	3	3	0	0	3

OPEN ELECTIVES OFFERED BY DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

Sl. No	Course Code	Course Name	Category	Type	Contact Periods / Week	L	T	P	Credits
1.	24CSO001	Generative AI	OEC	T	3	3	0	0	3
2.	24CSO002	Game Programming	OEC	T	3	3	0	0	3
3.	24CSO003	Neural Networks and Deep Learning	OEC	T	3	3	0	0	3
4.	24CSO004	Introduction to Augmented Reality (AR) / Virtual Reality (VR)	OEC	T	3	3	0	0	3
5.	24CSO005	High Speed Networks	OEC	T	3	3	0	0	3

OPEN ELECTIVES OFFERED BY DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Sl. No	Course Code	Course Name	Category	Type	Contact Periods / Week	L	T	P	Credits
1	24ECO001	Introduction to Control Engineering	OEC	T	3	3	0	0	3
2	24ECO002	Semiconductor Manufacturing	OEC	T	3	3	0	0	3
3	24ECO003	Mechatronics	OEC	T	3	3	0	0	3
4	24ECO004	Sensors and Actuators	OEC	T	3	3	0	0	3
5	24ECO005	Wireless Network	OEC	T	3	3	0	0	3

OPEN ELECTIVES OFFERED BY DEPARTMENT OF MECHANICAL ENGINEERING

Sl. No	Course Code	Course Name	Category	Type	Contact Periods / Week	L	T	P	Credits
1.	24MEO001	Drone Technologies	OEC	T	3	3	0	0	3
2.	24MEO002	Introduction to Six Sigma	OEC	T	3	3	0	0	3
3.	24MEO003	Sustainable Engineering	OEC	T	3	3	0	0	3
4.	24MEO004	Foundation Skills in Integrated Product Development	OEC	T	3	3	0	0	3
5.	24MEO005	Maintenance Engineering	OEC	T	3	3	0	0	3

OPEN ELECTIVES OFFERED BY DEPARTMENT OF CIVIL ENGINEERING

Sl. No	Course Code	Course Name	Category	Type	Contact Periods / Week	L	T	P	Credits
1.	24CEO001	Environment and Agriculture	OEC	T	3	3	0	0	3
2.	24CEO002	Green Building Design	OEC	T	3	3	0	0	3
3.	24CEO003	Geographical Information System	OEC	T	3	3	0	0	3
4.	24CEO004	Climate Change and its Impacts	OEC	T	3	3	0	0	3
5.	24CEO005	Disaster Management	OEC	T	3	3	0	0	3

MANDATORY COURSES (Offered as Non – Credit Courses)**MANDATORY COURSES I, II, III**

Sl. No	Course Code	Course Name	Category	Type	Contact Periods / Week	L	T	P	Credits
1	24MAC001	Constitution of India	MC	T	1	1	0	0	0
2	24MAC002	Industrial Safety	MC	T	1	1	0	0	0
3	24MAC003	Entrepreneurship	MC	T	1	1	0	0	0
4	24MAC004	Film Appreciation	MC	T	1	1	0	0	0
5	24MAC005	Well Being with Traditional Practices - Yoga, Ayurveda and Siddha	MC	T	1	1	0	0	0
6	24MAC006	Introduction to Women and Gender Studies	MC	T	1	1	0	0	0
7	24MAC007	Elements of Literature	MC	T	1	1	0	0	0

MANDATORY COURSES INTERNSHIP I, II

Sl. No	Course Code	Course Name	Category	Type	Contact Periods / Week	L	T	P
1.	24MAC221	Summer Internship I	MC	P	0	0	0	0
2.	24MAC321	Summer Internship II	MC	P	0	0	0	0

MANAGEMENT ELECTIVE COURSES

Sl. No	Course Code	Course Name	Category	Type	Contact Periods / Week	L	T	P	Credits
1.	24HSM301	Principles of Management	HSMC	T	2	2	0	0	2
2.	24HSM302	Total Quality Management	HSMC	T	2	2	0	0	2
3.	24HSM303	Engineering Economics and Financial Accounting	HSMC	T	2	2	0	0	2
4.	24HSM304	Human Resource Management	HSMC	T	2	2	0	0	2
5.	24HSM405	Knowledge Management	HSMC	T	2	2	0	0	2
6.	24HSM306	Industrial Management	HSMC	T	2	2	0	0	2

SREE SAKTHI ENGINEERING COLLEGE**(Autonomous)****REGULATIONS 2024****CHOICE BASED CREDIT SYSTEM****B. E- ELECTRICAL AND ELECTRONICS ENGINEERING****CREDIT SUMMARY – SEMESTER BASIS**

Category / Semester	I	II	III	IV	V	VI	VII	VIII	Total Credits
HSMC	4	4	-	-	-	2	2	-	12
BSC	9	9	4	6	-	-	-	-	28
ESC	7	6	3	-	-	-	-	-	16
PCC	-	4	15	15	13	4	7	-	58
PEC	-	-	-	-	6	6	3	3	18
OEC	-	-	-	-	3	3	6	0	12
EEC	1	1	2	2	2	2	5	6	21
MC	-	-	-	-	-	-	-	-	-
Total Credits	21	24	24	23	24	17	23	9	165

SREE SAKTHI ENGINEERING COLLEGE
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B. E- ELECTRICAL AND ELECTRONICS ENGINEERING
CATEGORY-WISE COURSE LIST

Humanities, Social Sciences and Management Courses (HSMC)

Sl. No	Course Code	Course Name	Type	Contact Periods / Week	L	T	P	Credits
1	24HSM101	Professional English - I	T	3	3	0	0	3
2	24HSM102	Heritage of Tamils	T	1	1	0	0	1
3	24HSM103	Professional English - II	T	3	3	0	0	3
4	24HSM104	Tamils and Technology	T	1	1	0	0	1
5	24HSM401	Professional Ethics and Human Values	T	2	2	0	0	2
6	24HSM3**	Management Elective*	T	2	2	0	0	2

Total Credits: 12

Basic Science Courses (BSC)

Sl. No	Course Code	Course Name	Type	Contact Periods / Week	L	T	P	Credits
1.	24BSC101	Matrices and Calculus	T	4	3	1	0	4
2.	24BSC102	Engineering Physics	T	3	3	0	0	3
3.	24BSC121	Engineering Physics Laboratory	P	4	0	0	4	2
4.	24BSC104	Random Process and Linear Algebra	T	4	3	1	0	4
5.	24BSC103	Engineering Chemistry	T	3	3	0	0	3
6.	24BSC122	Engineering Chemistry Laboratory	P	4	0	0	4	2
7.	24BSC201	Transforms and Partial Differential Equations	T	4	3	1	0	4
8.	24BSC203	Statistics and Numerical Methods	T	4	3	1	0	4
9.	24BSC207	Environmental Science and Sustainability	T	2	2	0	0	2

Total Credits:28

Engineering Science Courses (ESC)

Sl. No	Course Code	Course Name	Type	Contact Periods / Week	L	T	P	Credits
1.	24ESC102	Basic Civil and Mechanical Engineering	T	3	3	0	0	3
2.	24ESC103	Engineering Graphics	T	6	2	0	4	4
3.	24ESC121	Engineering Practices Laboratory	P	4	0	0	4	2
4.	24ESC111	Problem Solving and Python Programming	TP	5	3	0	2	4
5.	24ESC214	Data Structures and OOPS	TP	4	2	0	2	3

Total Credits:16

Professional Core Courses (PCC)

Sl. No	Course Code	Course Name	Type	Contact Periods / Week	L	T	P	Credits
1.	24EEEC111	Electric Circuit Analysis	TP	5	3	0	2	4
2.	24EEEC201	Electromagnetic Theory	T	4	3	1	0	4
3.	24EEEC202	Digital Logic Circuits	T	3	2	1	0	3
4.	24EEEC211	Electron Devices and Circuits	TP	5	3	0	2	4
5.	24EEEC212	Electrical Machines - I	TP	5	3	0	2	4
6.	24EEEC203	Measurements and Instrumentation	T	3	3	0	0	3
7.	24EEEC213	Microprocessors and Microcontrollers	TP	5	3	0	2	4
8.	24EEEC214	Linear Integrated Circuits & Applications	TP	5	3	0	2	4
9.	24EEEC215	Electrical Machines II	TP	5	3	0	2	4
10.	24EEEC301	Control Systems	T	4	3	1	0	4
11.	24EEEC302	Transmission & Distribution	T	4	3	1	0	4
12.	24EEEC311	Power Electronics	TP	5	3	0	2	3
13.	24EEEC321	Control Systems Laboratory	P	4	0	0	4	2
14.	24EEEC303	Power System Analysis	T	3	3	0	0	3
15.	24EEEC402	Power System Operation and Control	T	3	3	0	0	3
16.	24EEEC322	Power System Laboratory	P	4	0	0	4	2
17.	24EEEC401	Industrial Automation using PLC & SCADA	T	3	3	0	0	3

Total Credits: 58

Employability Enhancement Courses (EEC)

Sl. No	Course Code	Course Name	Type	Contact Periods / Week	L	T	P	Credits
1.	24CDC101	Career Development Skills I	T	1	1	0	0	1
2.	24CDC102	Career Development Skills II	T	1	1	0	0	1
3.	24CDC201	Career Development Skills III	T	2	2	0	0	1
4.	24CDC221	Mini Project I	P	2	0	0	2	1
5.	24CDC202	Career Development Skills IV	T	1	1	0	0	1
6.	24CDC222	Mini Project II	P	2	0	0	2	1
7.	24CDC301	Career Development Skills V	T	1	1	0	0	1
8.	24CDC321	Mini Project III	P	2	0	0	2	1
9.	24CDC302	Career Development Skills VI	T	1	1	0	0	1
10.	24CDC322	Mini Project IV	P	2	0	0	2	1
11.	24CDC421	Career Development Skills VII	P	2	0	0	2	1
12.	24CDC422	Project work Phase I	P	8	0	0	8	4
13.	24CDC423	Project work Phase II	P	12	0	0	12	6

Total Credits:21

VERTICAL 1: FINTECH AND BLOCKCHAIN

Sl. No.	Course Code	Course Name	Type	Total Contact Periods	Periods Per Week			Credits
					L	T	P	
1	24HOF001	Financial Management	T	3	3	0	0	3
2	24HOF002	Fundamentals of Investment	T	3	3	0	0	3
3	24HOF003	Banking Financial Services and Insurance	T	3	3	0	0	3
4	24HOF004	Introduction to Block Chain and its Applications	T	3	3	0	0	3
5	24HOF005	Introduction to Fintech	T	3	3	0	0	3
6	24HOF006	Fintech Personal Finance and Payments	T	3	3	0	0	3

VERTICAL 2: ENTREPRENEURSHIP

Sl. No.	Course Code	Course Name	Type	Total Contact Periods	Periods Per Week			Credits
					L	T	P	
1	24HOE001	Foundations of Entrepreneurship	T	3	3	0	0	3
2	24HOE002	Team Building and Leadership Management for Business	T	3	3	0	0	3
3	24HOE003	Creativity and Innovation in Entrepreneurship	T	3	3	0	0	3
4	24HOE004	Principles of Marketing Management for Business	T	3	3	0	0	3
5	24HOE005	Human Resource Management for Entrepreneurship	T	3	3	0	0	3
6	24HOE006	Financing New Business Ventures	T	3	3	0	0	3

VERTICAL 3: PUBLIC ADMINISTRATION

Sl. No.	Course Code	Course Name	Type	Total Contact Periods	Periods Per Week			Credits
					L	T	P	
1	24HOP001	Principles of Public Administration	T	3	3	0	0	3
2	24HOP002	Constitution of India	T	3	3	0	0	3
3	24HOP003	Public Personnel Administration	T	3	3	0	0	3
4	24HOP004	Administrative Theories	T	3	3	0	0	3
5	24HOP005	Indian Administrative System	T	3	3	0	0	3
6	24HOP006	Public Policy Administration	T	3	3	0	0	3

VERTICAL 4: BUSINESS DATA ANALYTICS

Sl. No.	Course Code	Course Name	Type	Total Contact Periods	Periods Per Week			Credits
					L	T	P	
1	24HOB001	Statistics for Management	T	3	3	0	0	3
2	24HOB002	Data Mining for Business Intelligence	T	3	3	0	0	3
3	24HOB003	Human Resource Analytics	T	3	3	0	0	3
4	24HOB004	Marketing and Social Media Web Analytics	T	3	3	0	0	3
5	24HOB005	Operation and Supply Chain Analytics	T	3	3	0	0	3
6	24HOB006	Financial Analytics	T	3	3	0	0	3

VERTICAL 5: ENVIRONMENT AND SUSTAINABILITY

Sl. No.	Course Code	Course Name	Type	Total Contact Periods	Periods Per Week			Credits
					L	T	P	
1	24HOS001	Sustainable infrastructure Development	T	3	3	0	0	3
2	24HOS002	Sustainable Agriculture and Environmental Management	T	3	3	0	0	3
3	24HOS003	Sustainable Bio Materials	T	3	3	0	0	3
4	24HOS004	Materials for Energy Sustainability	T	3	3	0	0	3
5	24HOS005	Green Technology	T	3	3	0	0	3
6	24HOS006	Environmental Quality Monitoring and Analysis	T	3	3	0	0	3

ENROLLMENT FOR (HONOURS) MINOR DEGREE (OPTIONAL)

A student can optionally register for additional courses (18 credits) from semester V onwards and become eligible for the award of B.E / B. Tech (Honours) or Minor degree. These courses shall be from the same vertical or a combination of different verticals of the same programme of study only.

For minor degree, the student can register for courses from any one of the other programmes. Moreover, the student can register for courses from any one of the following verticals also.

Verticals for Minor Degree (In addition to all the verticals of other programmes)

Vertical I	Vertical II	Vertical III	Vertical IV	Vertical V
Fintech and Block Chain	Entrepreneurship	Public Administration	Business Data Analytics	Environment and Sustainability
Financial Management	Foundations of Entrepreneurship	Principles of Public Administration	Statistics for Management	Sustainable infrastructure Development
Fundamentals of Investment	Team Building & Leadership Management for Business	Constitution of India	Data Mining for Business Intelligence	Sustainable Agriculture and Environmental Management
Banking Financial Services and Insurance	Creativity Innovation in Entrepreneurship	Public Personnel Administration	Human Resource Analytics	Sustainable Bio Materials
Introduction to Block Chain and its Applications	Principles of Marketing Management for Business	Administrative Theories	Marketing and Social Media Web Analytics	Materials for Energy Sustainability
Introduction to Fintech	Human Resource Management for Entrepreneurship	Indian Administrative System	Operation and Supply Chain Analytics	Green Technology
Fintech Personal Finance and Payments	Financing New Business Ventures	Public Policy Administration	Financial Analytics	Environmental Quality Monitoring and Analysis

(choice of courses for Minor degree is to be made from any one vertical of other programmes or from anyone of the following verticals)