

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 Electronics and Communication Engineering
(CHOICE BASED CREDIT SYSTEM)

CURRICULUM & SYLLABI

REGULATION 2024

(For students admitted in 2024 – 2025)

SREE SAKTHI ENGINEERING COLLEGE

(Autonomous)

Vision:

To emerge as a center of excellence in engineering education, research, innovation, and entrepreneurship by fostering industry collaboration, practical skills, and ethical values, thereby empowering students to address global challenges with creativity, sustainability, and social responsibility.

Mission:

1. To nurture competent professionals and future leaders through learner-centric, innovative teaching and experiential learning practices.
2. To cultivate a scientific temperament that empowers students to provide sustainable solutions to real-world problems.
3. To promote ethical values, social responsibility, and inclusive development through holistic education.
4. To create a dynamic research ecosystem by building strong collaborations with industry, academia and research institutions.
5. To encourage entrepreneurship through structured support systems, incubation centers, and start-up development initiatives

Department of Electronics and Communication Engineering

Vision:

To be a center of excellence in Electronics and Communication Engineering by fostering innovation in intelligent electronic systems, promoting interdisciplinary research and upholding ethical practices to address global communication and automation challenges.

Mission:

The department strives to continually engage

- To deliver outcome-based education with a strong foundation in analog/digital electronics, signal processing, embedded systems and communication engineering.
- To promote innovation in areas such as VLSI design, IoT, wireless networks, and autonomous systems.

- To nurture ethical engineering practice, leadership, and lifelong learning through projects and professional engagements.
- To foster collaborations with EDA tool providers, communication industries, and research bodies for domain-relevant problem-solving.
- To encourage technology entrepreneurship in electronics, automation and intelligent systems through incubation support.

**B. E (DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING)**

PROGRAMME EDUCATIONAL OBJECTIVE (PEO's)

The 4-year rigorous B. E Electronics and Communication Engineering programme enables a graduate with the following

PEO	OBJECTIVE
PEO1	Graduates will have a strong foundation in Mathematics, Science and Engineering fundamentals to enable them to deliver efficient solutions to challenging problems in Electronics and Communication and allied disciplines.
PEO2	Graduates will attain successful professional careers by applying their Engineering skills to develop initiatives and innovative ideas for R&D, Industry and Higher Education.
PEO3	Graduates will engage in life-long learning, adapt to evolving technology, work in interdisciplinary area to design innovative products for society and become Entrepreneurs.

**B. E (DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING)**

PROGRAMME OUTCOMES (PO's)

On completion of the programme, the Engineering graduate shall acquire the following:

PO1	Engineering Knowledge: Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified in WK1 to WK4 respectively to develop to the solution of complex engineering problems.
PO2	Problem Analysis: Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development.
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 & IT tools, including prediction and modelling recognizing their limitations to solve complex engineering problems.
PO6	The Engineer And The World: Analyze and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal framework, culture and environment.
PO7	Ethics: Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws.
PO8	Individual And Collaborative Team Work: Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams.

PO9	Communication: Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences
P10	Project Management And Finance: Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects and in multidisciplinary environments.
PO11	Life-Long Learning: Recognize the need for, and have the preparation and ability for i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change.

**B. E (DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING)**

PROGRAMME SPECIFIC OUTCOMES (PSO's)

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

PSO	OBJECTIVE
1	Design, develop and analyze electronic systems through application of relevant electronics, mathematics and engineering principles.
2	Design, develop and analyze communication systems through application of fundamentals from communication principles, signal processing, and RF System Design & Electromagnetics.
3	Adapt to emerging electronics and communication technologies and develop innovative solutions for existing and newer problems.

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

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

(1 – Low, 2 – Medium, 3 – High)



Mapping of Programme Specific Outcomes (PSO) and Programme Outcome (PO):

Course Code	Subject Code & Name	Program Outcomes (POs)											Program Specific Outcomes (PSOs)		
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
C101	24HSM101 Professional English - I						2.8	1	3	3	2.4	3	1.8		1.8
C102	24BSC101 Matrices and Calculus	2.6	2.6	2	2	1.6						1	1	1.8	1
C103	24BSC102 Engineering Physics	3	1.8	1.8	1.8	2	1.8				1	1	2	1	
C104	24ESC101 Basic Electrical and Electronics Engineering	2	2	2.2	1.8	1							1	1.6	1.6
C105	24ESC103 Engineering Graphics	2	1	2	1	1					1	1	1	1	1
C107	24BSC121 Engineering Physics Laboratory	2	1	1	1								1		1
C110	24HSM103 Professional English II						2.8	1	3	3	2.4	1	1.8		1.8
C111	24BSC104 Random Process and Linear Algebra	2	1.6	1.8	1							1	1.4	0.8	
C112	24BSC103 Engineering Chemistry	1.6	0.8		0.6		1.6					1	1	0.4	0.4
C113	24ESC111 Problem Solving and Python Programming	1.8	2.6	2		1.6				1		1			
C114	24EEC111 Electric Circuit Analysis	3	2	1.2						1		1	1.5	0.8	0.4
C116	24BSC122 Engineering Chemistry Laboratory	0.6								1					
C117	24ESC121 Engineering Practices Laboratory	2	2	1						1.2		1	2		0.4
C201	24BSC201 Transforms and Partial Differential Equations	3	0.9	1.2	1.6							1.6	3	1.6	
C202	24ESC211 C Programming and Data Structures	3	2	1.6	1	1.6					1.2	1.2	3	2.2	
C203	24ECC211 Electronic Devices and Circuits	3	2.4	2	1.4	1.6						1.6	3	1.8	1.6
C204	24ECC201 Electromagnetic Fields and Transmission Lines	3	2.4	2.2	2	1.8						2	2.6	2.6	
C205	24ECC202 Signals and Systems	3	2.6	1	1								0.8	0.8	
C206	24ECC212 Digital System Design	3	2.6	2.6	1.6	1.6							2		
C208	24CDC221 Mini Project I	2	3	3	3	3	1	1	2	2	3	2	3	3	2
C210	24BSC203 Statistics and Numerical Methods	3	2.6	1.6	2.4	1.6							2.6	2.4	
C211	24BSC207 Environmental Science and Sustainability	2	1.4	0.4	1.6	0.6	3	2.6				2	1.4	0.8	
C212	24ECC213 Linear Integrated Circuits	3	3	1.2	2.6	2							2.6	2.6	
C213	24ECC214 Analog and Digital Communication Systems	3	2.8	2.4	1.6	2.2							3	2.8	1.6
C214	24ECC215 Digital	3	2.2	2.6	1.4	2.8							2.8	2.8	

B.E.,- ELECTRONICS AND COMMUNICATION ENGINEERING

	Signal Processing														
C215	24ECC203 Control System Engineering	2.8	2.4	3	2	1.6					1.6	1.8	2	1.6	
C217	24CDC222 Mini Project II	2	3	3	3	3	1	1	2	2	3	2	3	3	2
C218	24MAC221 Summer Internship I	2	2	1	1	1	2	2	2	2	1	1	2	1	1
C301	24ECC311 Microprocessors and Microcontrollers	2	1	2	1	1						0.8		1.2	0.4
C302	24ECC301 Antenna and Wave Propagation	2	1	1.6	1.8							0.4		0.2	
C303	24ECC312 VLSI Design	1.4	1.6	1.6	1	2						0.8		1.8	0.8
C304	24ECP103 Computer Architecture and Networks	2	1.6	1.6	1.6								1.6	1.4	1
C305	24ECP001 Image Processing	1.6	1.8	2	1.8								1.8	1.6	
C306	24ECP004 Introduction to Artificial Intelligence and Machine Learning	1.6	2	1.2	1.4								1.2	1.4	0.4
C308	24CDC321 Mini Project III	2	3	3	3	3	1	1	2	2	3	2	3	3	2



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B. E (ELECTRONICS AND COMMUNICATION ENGINEERING)

CURRICULUM STRUCTURE

CATEGORY	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
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B.E.,- ELECTRONICS AND COMMUNICATION ENGINEERING

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	24ESC101	Basic Electrical and Electronics Engineering	ESC	T	3	3	0	0	3
5	24ESC103	Engineering Graphics	ESC	T	6	2	0	4	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	1	08	21

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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	24ESC211	C Programming and Data Structures	ESC	TP	4	2	0	2	3
3	24ECC211	Electronic Devices and Circuits	PCC	TP	5	3	0	2	4
4	24ECC201	Electromagnetic Fields and Transmission Lines	PCC	T	3	3	0	0	3
5	24ECC202	Signals and Systems	PCC	T	3	3	0	0	3
6	24ECC212	Digital System Design	PCC	TP	5	3	0	2	4
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	24MAC004	Film Appreciation (Mandatory Course I)	MC	T	1	1	0	0	0
Total					28	19	1	08	23

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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	24ECC213	Linear Integrated Circuits	PCC	TP	5	3	0	2	4
4	24ECC214	Analog and Digital Communication Systems	PCC	TP	5	3	0	2	4
5	24ECC215	Digital Signal Processing	PCC	TP	5	3	0	2	4
6	24ECC203	Control System Engineering	PCC	T	3	3	0	0	3
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	01	08	23

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Sl. No	Course Code	Course Name	Category	Type	Contact Periods / Week	L	T	P	Credits
1	24ECC311	Microprocessors and Microcontrollers	PCC	TP	5	2	0	2	4
2	24ECC301	Antenna and Wave Propagation	PCC	T	3	3	0	0	3
3	24ECC312	VLSI Design	PCC	TP	5	2	0	2	4
4	24ECP101	Low Power IC Design (Professional Elective I)	PEC	TP	4	2	0	2	3
5	24ECP001	Image Processing (Professional Elective II)	PEC	T	3	3	0	0	3
6	24ECP004	Introduction to Artificial Intelligence and Machine Learning (Professional Elective III)	PEC	T	3	3	0	0	3
7	24CDC301	Career Development Skills V	EEC	T	1	1	0	0	1
8	24CDC321	Mini Project III	EEC	P	2	0	0	2	1
9	24MAC002	Industrial Safety (Mandatory Courses II)	MC	T	1	1	0	0	0
Total					27	17	0	8	22

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Sl. No	Course Code	Course Name	Category	Type	Contact Periods / Week	L	T	P	Credits
1	24ECC302	Microwave and Optical Communication	PCC	T	3	3	0	0	3
2	24ECC313	Embedded System and IoT Design	PCC	TP	5	2	0	2	4
3	24ECP006	Bio Medical Instrumentation (Professional Elective IV)	PEC	T	3	3	0	0	3
4	24ECP010	Satellite Communication (Professional Elective V)	PEC	T	3	3	0	0	3
5	24ECO005	Wireless Network (Open Elective I)	PEC	T	3	3	0	0	3
6	24HSM301	Principles of Management (Management Elective)	HSMC	T	2	2	0	0	2
7	24CDC302	Career Development Skills VI	EEC	T	1	1	0	0	1
8	24CDC322	Mini Project IV	EEC	P	2	0	0	2	1
9	24MAC321	Summer Internship II	MC	P	0	0	0	0	0
10	24MAC003	Entrepreneurship(Mandatory Courses III)	MC	T	1	1	0	0	0
Total					23	18	0	4	20

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Semester VII

Sl. No	Course Code	Course Name	Category	Type	Contact Periods / Week	L	T	P	Credits
1	24ECC411	Wireless Communication	PCC	TP	5	2	0	2	4
2	24ECC401	MEMS Design	PCC	T	3	3	0	0	3
3	24HSM401	Professional Ethics and Human Values	HSMC	T	2	2	0	0	2
4	24CSO005	High Speed Networks (Open Elective III)	OEC	T	3	3	0	0	3
5	24EEO004	Introduction to PLC Programming (Open Elective III)	OEC	T	3	3	0	0	3
6	24CDC421	Career Development Skills VII	EEC	P	2	0	0	2	1
7	24CDC422	Project Work Phase I	EEC	P	4	0	0	4	2
Total					22	13	0	8	18

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Semester VIII

Sl. No	Course Code	Course Name	Category	Type	Contact Periods / Week	L	T	P	Credits
1	24ECP009	Remote Sensing (Professional Elective VI)	OEC	T	3	3	0	0	3
2	24ECO003	Mechatronics (Open Elective IV)	OEC	T	3	3	0	0	3
3	24CDC423	Project Work Phase II	EEC	P	16	0	0	16	8
Total					22	06	0	16	14

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
1	24MAC001	Constitution of India	MC	T	1	1	0	0
2	24MAC002	Industrial Safety	MC	T	1	1	0	0
3	24MAC003	Entrepreneurship	MC	T	1	1	0	0
4	24MAC004	Film Appreciation	MC	T	1	1	0	0
5	24MAC005	Well Being with Traditional Practices - Yoga, Ayurveda and Siddha	MC	T	1	1	0	0
6	24MAC006	Elements of Literature	MC	T	1	1	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

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	24ECP101	Low Power IC Design	PEC	TP	4	2	0	2	3
2	24ECP102	Validation and Testing Technology	PEC	TP	4	2	0	2	3
3	24ECP103	VLSI Testing and Design For Testability	PEC	TP	4	2	0	2	3
4	24ECP104	Analog IC Design	PEC	TP	4	2	0	2	3
5	24ECP105	Advanced Digital Signal Processing	PEC	TP	4	2	0	2	3
6	24ECP001	Image Processing	PEC	T	3	3	0	0	3
7	24ECP106	Speech Processing	PEC	TP	4	2	0	2	3
8	24ECP107	RF Transceivers	PEC	TP	4	2	0	2	3
9	24ECP002	Antenna Design	PEC	T	3	3	0	0	3
10	24ECP108	RFID System Design and Testing	PEC	TP	4	2	0	2	3
11	24ECP003	Computer Architecture and Networks	PEC	T	3	3	0	0	3
12	24ECP004	Introduction to Artificial Intelligence and Machine Learning	PEC	T	3	3	0	0	3

PROFESSIONAL ELECTIVE COURSES IV, V, VI

Sl. No	Course Code	Course Name	Category	Type	Contact Periods / Week	L	T	P	Credits
1	24ECP005	Medical Imaging Systems	PEC	T	3	3	0	0	3
2	24ECP006	Bio Medical Instrumentation	PEC	T	3	3	0	0	3
3	24ECP109	IoT Based Systems Design	PEC	TP	4	2	0	2	3
4	24ECP007	Fundamentals of Nanoelectronics	PEC	T	3	3	0	0	3
5	24ECP008	Wireless Sensor Network Design	PEC	T	3	3	0	0	3
6	24ECP110	Industrial IoT and Industry 4.0	PEC	TP	4	2	0	2	3
7	24ECP111	IoT Processors	PEC	TP	4	2	0	2	3
8	24ECP009	Remote Sensing	PEC	T	3	3	0	0	3
9	24ECP010	Satellite Communication	PEC	T	3	3	0	0	3
10	24ECP011	Wireless Broad Band Networks	PEC	T	3	3	0	0	3
11	24ECP012	4G / 5G Communication Networks	PEC	TP	4	2	0	2	3
12	24ECP112	Network and Security	PEC	TP	4	2	0	2	3

OPEN ELECTIVE COURSES

OPEN ELECTIVES OFFERED BY THE PARENT(ECE) DEPARTMENT:

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



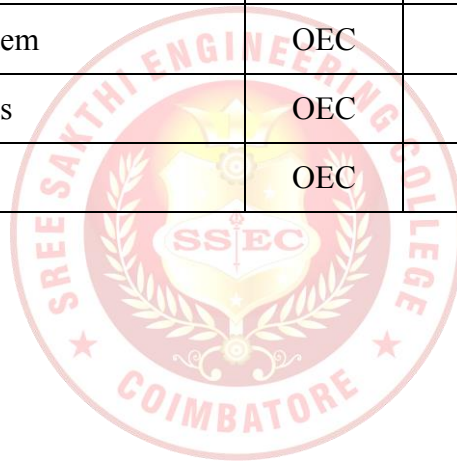
OPEN ELECTIVES OFFERED BY DEPARTMENT OF MECHANICAL ENGINEERING

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



OPEN ELECTIVES OFFERED BY DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Sl. No	Course Code	Course Name	Category	Type	Contact Periods / Week	L	T	P	Credits
1	24EEO001	Sustainable and Environmental Friendly HV Insulation System	OEC	T	3	3	0	0	3
2	24EEO002	Smart Grids	OEC	T	3	3	0	0	3
3	24EEO003	Hybrid Energy Technology	OEC	T	3	3	0	0	3
4	24EEO004	Introduction to PLC Programming	OEC	T	3	3	0	0	3
5	24EEO005	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

SREE SAKTHI ENGINEERING COLLEGE

(Autonomous)

REGULATIONS 2024

CHOICE BASED CREDIT SYSTEM

B. E ELECTRONICS AND COMMUNICATION 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	14	15	11	7	7		58
PEC					9	9			18
OEC							6	6	12
EEC	1	1	2	2	2	2	3	8	21
MC	-	-	✓	✓	✓	✓	-	-	-
Total Credits	21	24	23	23	22	20	18	14	165

SREE SAKTHI ENGINEERING COLLEGE

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REGULATIONS 2024

CHOICE BASED CREDIT SYSTEM

B. E ELECTRONICS AND COMMUNICATION 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	24HSM3**	Management Elective*	T	2	2	0	0	2
6	24HSM401	Professional Ethics and Human Values	T	2	2	0	0	2

Total Credits: 12

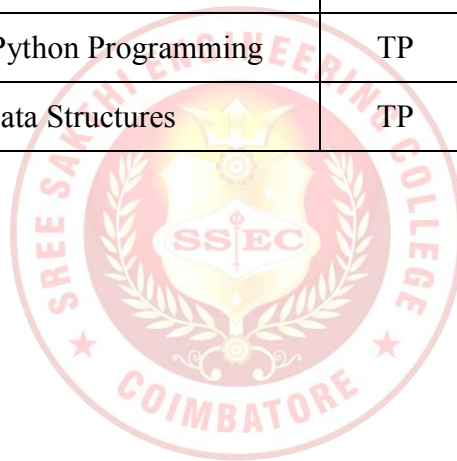
Basic Science Courses (BSC):

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	3	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	Transform and Partial Differential Equations	T	4	3	1	0	4
8	24BSC203	Statistics and Numerical Methods	T	3	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	24ESC101	Basic Electrical and Electronics 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	24ESC211	C Programming and Data Structures	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	24EEC111	Electric Circuit Analysis	TP	5	3	0	2	4
2	24ECC201	Electronic Devices and Circuits	TP	5	3	0	2	4
3	24ECC202	Electromagnetic Fields and Transmission Lines	T	3	3	0	0	3
4	24ECC203	Signals and Systems	T	3	3	0	0	3
5	24ECC211	Digital System Design	TP	5	3	0	2	4
6	24ECC204	Linear Integrated Circuits	TP	5	3	0	2	4
7	24ECC212	Analog and Digital Communication Systems	TP	5	3	0	2	4
8	24ECC213	Digital Signal Processing	TP	4	3	0	2	4
9	24ECC205	Control System Engineering	T	3	3	0	0	3
10	24ECC311	Microprocessors and Microcontrollers	TP	5	3	0	2	4
11	24ECC301	Antenna and Wave Propagation	T	3	3	0	0	3
12	24ECC302	VLSI Design	TP	5	3	0	2	4
13	24ECC303	Microwave and Optical Communication	T	3	3	0	0	3
14	24ECC312	Embedded System and IoT Design	TP	5	3	0	2	4

B.E.,- ELECTRONICS AND COMMUNICATION ENGINEERING

15	24ECC401	Wireless Communication	TP	5	3	0	2	4
16	24ECC402	MEMS Design	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	4	0	0	4	2
13	24CDC423	Project Work Phase II	P	16	0	0	16	8

Total Credits:21

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 Fintech and Block Chain	Vertical II Entrepreneurship	Vertical III Public Administration	Vertical IV Business Data Analytics	Vertical V 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)



VERTICAL1: FINTECH AND BLOCK CHAIN

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

VERTICAL2: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

VERTICAL3: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

VERTICAL4: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

VERTICAL5: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

