



SCHEME: 2023
SEM: III

AUTONOMOUS SCHEME (Tentative) UG - BE 2nd Year ECE
Aca. Year.: 2024-25

Date: 17/11/2023

SL No	Course Type	Course type Count	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	Teaching Hrs/Week				Examinations					
								L	T	P	S	CIE Marks	SEE			Tot. Marks	
								Lecture	Tutorial	Practical	PBL/ABL/SL/others.		Dur.	Th. Mrks	Lab. Mrks.		
1	IBSC	3	23MAI301	Maths-III													
2	PCC	1	23ECT302	Network Analysis	Maths	Maths	4	2	2	2	-	50	3	50	-	100	
3	IPCC	1	23ECT303	Analog Electronics Circuits	ECE	ECE	3	2	2	0	-	50	3	50	-	100	
4	IPCC	2	23ECT304	Digital systems Design using verilog	ECE	ECE	4	3	0	2	-	50	3	50	-	100	
5	PCCL	1	23ECL305	Analog & Digital Electronics Lab	ECE	ECE	4	2	2	2	-	50	3	50	-	100	
6	ETC	1	23ECE31y	Emerging Technology Course - 1	ECE	ECE	1	0	0	2	-	50	3	-	50	100	
7	AEC	1	23ECAE31	Skill development Course - 1 (EWDP)	ECE	ECE	3	3	0	0	-	50	3	50	-	100	
8	NCMC	3	23PDSN03	Personality Development-3 (HRD Training)	I.E.	I.E.	1	1	0	0	3	50	2	50	-	100	
							PP/ NP	0	0	0	2	50	-	-	-	50	
Total							20	13	6	8	5	400		300	50	750	

BSC: Basic Science Course; PCC: Professional Course; IPCC: Integrated Professional Core Course; PCCL: Professional Core Course Laboratory; ETC: Emerging Technology Course;
AEC: Ability Enhancement Course; NCMC: Non Credit Mandatory Course {I.E.-Industry Experts}

Note: For the fulfillment of successful completion of degree, lateral entry students, shall study & complete additional courses of Additional mathematics, Language Courses, Environmental studies, Constitution of India & professional Ethics as per the guidelines released time to time.

Emerging Technology Course - 1	
Course Code	Course Title
23ECE311	Sensors & Instrumentation
23ECE312	Introduction to IOT
23ECE313	Introduction to Cyber Security
23ECE314	Programming in C++

HOD

Academic Dean
DR. BABU. N.V
Prof & Academic Dean
SJB Institute of Technology
BGS Health & Education City
Kengeri Bengaluru-560060

Principal
Principal
SJB Institute of Technology
67, BGS Health & Education City,
Dr. Vishnuvardhan Road,
Kengeri, Bengaluru - 560 060.



AUTONOMOUS SCHEME (Tentative) UG - BE 2nd Year ECE

SCHEME: 2023

Aca. Year.: 2024-25

Date:


SEM: IV

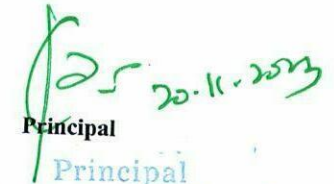
SL No	Course Type	Course type Count	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	Teaching Hrs/Week				Examinations				
								L	T	P	S	CIE Marks	SEE			Tot. Marks
								Lecture	Tutorial	Practical	PBL/ABL/SL/others.		Dur.	Th. Mrks	Lab. Mrks.	
1	IBSC	4	23MAI401	Maths-IV	Maths	Maths	3	2	0	2	-	50	3	50	-	100
2	PCC	2	23ECT402	Microcontrollers	ECE	ECE	3	3	0	0	-	50	3	50	-	100
3	IPCC	3	23ECT403	Signals & Systems	ECE	ECE	4	3	0	2	-	50	3	50	-	100
4	IPCC	4	23ECT404	Control system	ECE	ECE	4	3	0	2	-	50	3	50	-	100
5	PCCL	2	23ECL405	Microcontroller lab	ECE	ECE	1	0	0	2	-	50	3	-	50	100
6	ETC	2	23ECE42y	Emerging Technology Course – 2	ECE	ECE	3	3	0	0	-	50	3	50	-	100
7	HSMC	5	23SFHH06/ 23UHVH07	SFH or UHV	any dept	any dept	1	0	2	0	@	50	2	50	-	100
8	AEC	2	23ECAE41	Skill Development Course - 4	I.E.	I.E.	1	1	0	0	3	50	2	50	-	100
9	NCMC	4	23PASN01	Phy. Education (Sports & Phy. Activities)	PED	PED	PP/ NP	-	-	-	2	50	-	-	-	50
			23YOGN02	Yoga	PED	PED										
			23NSSN03	NSS	NSS	NSS										
			23NCCN04	NCC	NCC	NCC										
			23IKSN05	Indian Knowledge System	HSS	HSS										
10	NCMC	5	23PDSN04	Personality Development-4 (HRD Training)	I.E.	I.E.	PP/	0	0	0	2	50	-	-	-	50
Total							20	15	2	8	7	500		350	50	900

BSC: Basic Science Course; PCC: Professional Course; IPCC: Integrated Professional Core Course; PCCL: Professional Core Course Laboratory; ETC: Engineering Technology Course; AEC: Ability Enhancement Course; HSMC: Humanities, Social Sciences & Management Course; NCMC: Non Credit Mandatory Course; {@ - Compulsory one activity during the semester} {\$ - Activity based (2 Hrs/week)} {I.E.-Industry Experts}

Emerging Technology Course - 2	
Course Code	Course Title
23ECE421	Linear Integrated Circuits
23ECE422	Operating Systems
23ECE423	Labview
23ECE424	Engineering Statistics & Linear Algebra


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Dr. BABU
Academic Dean
Prof & Academic Dean
SJB Institute of Technology
BGS Health & Education City
Kengeri Bengaluru-560060


Principal
Principal
SJB Institute of Technology
67, BGS Health & Education City,
Dr. Vishnuvardhan Road,
Kengeri, Bengaluru - 560 060.



|| Jai Sri Gurudev ||
Sri Adichunchanagiri Shikshana Trust (R)

SJB Institute of Technology

BGS Health and Education City, Dr. Vishnuvardhana Road, Kengeri, Bengaluru-560060

Approved by AICTE, New Delhi.

Autonomous Institute affiliated to Visvesvaraya Technological University, Belagavi

Accredited by NAAC with 'A+' grade, Certified by ISO 9001 - 2015

Recognized by UGC, New Delhi with 2(f) & 12 (B)



AUTONOMOUS SCHEME (Tentative) UG - BE 3rd Year ECE

SCHEME: 2023

Aca. Year.: 2025-26

Date:


SEM: V


SL No	Course Type	Course type Count	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	Teaching Hrs/Week				Examinations				
								L Lecture	T Tutorial	P Practical	S PBL/ABL/ SL/others.	CIE Marks	SEE			Tot. Marks
													Dur.	Th. Mrks	Lab. Mrks	
1	PCC	3	23ECT501	Analog Communication	ECE	ECE	3	3	0	0	-	50	3	50	-	100
2	PCC	4	23ECT502	Electromagnetic Waves	ECE	ECE	4	3	0	0	-	50	3	50	-	100
3	IPCC	5	23ECT503	Digital Singal Processing	ECE	ECE	4	3	0	2	-	50	3	50	-	100
4	PCCL	3	23ECL504	Analog Communication Lab	ECE	ECE	1	0	0	2	-	50	3	-	50	100
5	PEC	1	23ECP51y	Professional Elective Course - 1	ECE	ECE	3	3	0	0	-	50	3	50	-	100
6	ETC	3	23ECE53y	Emerging Technology Course - 3	ECE	ECE	3	3	0	0	-	50	3	50	-	100
7	HSMC	6	23SFHH06/ 23UHVH07	SFH or UHV	any dept	any dept	1	0	2	0	@	50	2	50	-	100
8	AEC	3	23ECAE51	Skill Development Course - 5	I.E.	LE.	1	1	0	0	3	50	2	50	-	100
9	NCMC	6	23PASN01	Phy. Education (Sports & Phy. Activities)	PED	PED	PP/ NP	-	-	-	2	50	-	-	-	50
			23YOGN02	Yoga	PED	PED										
			23NSSN03	NSS	NSS	NSS										
			23NCCN04	NCC	NCC	NCC										
			23IKSN05	Indian Knowledge System	HSS	HSS										
10	NCMC	7	23PDSN04	Personality Development-5 (HRD Training)	I.E.	I.E.	PP/NP	0	0	0	2	50	-	-	-	50
Total							20	16	2	4	7	500		350	50	900

PCC: Professional Course; IPCC: Integrated Professional Core Course; PCCL: Professional Core Course Laboratory; ETC: Engineering Technology Course; AEC: Ability Enhancement Course; HSMC: Humanities, Social Sciences & Management Course; NCMC: Non Credit Mandatory Course; {@ - Compulsory one activity during the semester} {\$ - Activity based (2 Hrs/week)} {I.E.-Industry Experts}

Professional Elective Course - 1		Emerging Technology Course - 3	
Course Code	Course Title	Course Code	Course Title
23ECP511	Data Structure using C++	23ECE531	Machine Learning using Python
23ECP512	Introduction to Python	23ECE532	Detection & Estimation Theory
23ECP513	Artificial Neuro Networks	23ECE533	Adv. Computer Architecture
23ECP514	Cloud Computing & IoT Analytics	23ECE534	Advanced Labview


HOD


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Kengeri, Bengaluru-560060


Principal
Principal
SJB Institute of Technology
67, BGS Health & Education City,
Dr. Vishnuvardhan Road,
Kengeri, Bengaluru - 560 060.



SCHEME: 2023
SEM: VI

AUTONOMOUS SCHEME (Tentative) UG - BE 3rd Year ECE
Aca. Year.: 2025-26

Date:

SL No	Course Type	Course type Count	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	Teaching Hrs/Week				Examinations				
								L	T	P	S	CIE Marks	SEE			Tot. Marks
								Lecture	Tutorial	Practical	PBL/ABL/SL/others.		Dur.	Th. Mrks	Lab. Mrks	
1	PCC	5	23ECT601	Digital Communication	ECE	ECE	3	3	0	0	-	50	3	50	-	100
2	IPCC	6	23ECT602	Embedded System & RTOs	ECE	ECE	4	3	0	2	-	50	3	50	-	100
3	PCCL	4	23ECL603	Digital Communication Lab	ECE	ECE	1	0	0	2	-	50	3	-	50	100
4	PEC	2	23ECP62y	Professional Elective Course – 2	ECE	ECE	3	3	0	0	-	50	3	50	-	100
5	OEC	1	23ECO61y	Open Elective Course – 1	ECE	ECE	3	3	0	0	-	50	3	50	-	100
6	ETC	4	23ECE64y	Emerging Technology Course – 4	ECE	ECE	3	2	0	2	-	50	3	50	-	100
7	AEC	4	23ECAE61	Innovation & Design Thinking	ECE	ECE	1	0	2	0	@	50	2	50	-	100
8	PRJ	1	23ECPRJ1	Mini Project	ECE	ECE	2	0	0	4	@	50	3	-	50	100
9	AEC	5	23ECAE62	Skill Development Course - 6	I.E.	I.E.	1	1	0	0	3	50	2	50	-	100
10	NCMC	8	23PDSN04	Personality Development-5 (HRD Training)	I.E.	I.E.	PP/NP	0	0	0	2	50	-	-	-	50
Total							21	15	2	10	5	500		350	0	0

PCC: Professional Course; IPCC: Integrated Professional Core Course; PCCL: Professional Core Course Laboratory; PEC: Professional Elective Course; OEC: Open Elective Course; ETC: Engineering Technology Course; HSMC: Humanities, Social Sciences & Management Course; AEC: Ability Enhancement Course; {@ - Compulsory one activity during the semester}; {I.E.-Industry Experts}; {Open Electives listed here are for other department students, stdnts shall select from separate list published}

Professional Elective Course - 2		Open Elective Course - 1		Emerging Technology Course - 4	
Course Code	Course Title	Course Code	Course Title	Course Code	Course Title
23ECP621	Satellite Communication	23ECO611	Communication Theory	23ECE641	Cryptography
23ECP622	Machine Learning	23ECO612	Basic VLSI	23ECE642	DSPAA
23ECP623	Networks & Cybersecurity	23ECO613	Biomedical Signal Processing	23ECE643	Deep Learning Using Matlab
23ECP624	Digital Image Processing	23ECO614	Speech Processing	23ECE644	Nano Technology

HOD

Academic Dean

Principal
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Dr. BABU. N.V
Prof. & Academic Dean
SJB Institute of Technology
BGS Health & Education City
Kengeri, Bengaluru-560060

-518-

SJB Institute of Technology
67, BGS Health & Education City,
Dr. Vishnuvardhan Road,
Kengeri, Bengaluru-560060



SCHEME: 2023
SEM: VII

AUTONOMOUS SCHEME (Tentative) UG - BE 4th Year ECE
Aca. Year.: 2026-27

Date:

SL No	Course Type	Course type Count	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	Teaching Hrs/Week				Examinations				
								L	T	P	S	CIE Marks	SEE			Tot. Marks
								Lecture	Tutorial	Practical	PBL/ABL/SL/others.		Dur.	Th. Mrks	Lab. Mrks	
1	PCC	6	23ECT701	Wireless Communication	ECE	ECE	3	3	0	0		50	3	50	-	100
2	IPCC	7	23ECT702	VLSI Design & Testing	ECE	ECE	4	3	0	2		50	3	50	-	100
3	IPCC	8	23ECT703	Microwave & Antennas	ECE	ECE	4	3	0	2		50	3	50	-	100
4	PEC	3	23ECP73y	Professional Elective Course – 3	ECE	ECE	3	3	0	0		50	3	50	-	100
5	OEC	2	23ECO72y	Open Elective Course – 2	Dept.	Dept.	3	3	0	0		50	3	50	-	100
6	HSMC	7	23ECT704	Management & Entrepreneurship	Dept.	Dept.	2	2	0	0		50	3	50	-	100
7	PRJ	2	23ECP72	Major Project - Phase I			2	0	0	0	@	50	3	-	50	100
Total							21	17	0	6		350		300	50	700

PCC: Professional Core Course; IPCC: Integrated Professional Core Course; PEC: Professional Elective Course; OEC: Open Elective Course; PRJ-P1W: Major Project Phase Wise.
{Open Electives listed here are for other department students, stdnts shall select from separate list published}

Professional Elective Course - 3		Open Elective Course - 2	
Course Code	Course Title	Course Code	Course Title
23ECP731	Sensors & Actuators MMC	23ECO721	Automotive Electronics
23ECP732	5G Fundamental & Architecture	23ECO722	Radar Engineering
23ECP733	Real Time Systems	23ECO723	IoT/Embedded Systems
23ECP734	Optical Fibre Communication/Optimization Techniques	23ECO724	CAD for VLSI

HOD

Academic Dean

Dr. BABU. N.V
Prof & Academic Dean
SJB Institute of Technology
BGS Health & Education City
Kengeri, Bengaluru-560060

-718-

Principal
Principal

SJB Institute of Technology
67, BGS Health & Education City,
Dr. Vishnuvardhan Road,
Kengeri, Bengaluru - 560 060.



SCHEME: 2023
SEM: VIII

AUTONOMOUS SCHEME (Tentative) UG - BE 4th Year ECE
Aca. Year.: 2026-27

Date:

SL No	Course Type	Course type Count	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	Teaching Hrs/Week				Examinations				
								L	T	P	S	CIE Marks	SEE			Tot. Marks
								Lecture	Tutorial	Practical	PBL/ABL/SL/others.		Dur.	Th. Mrks	Lab. Mrks	
1	SLC	1	23ECSL1y	Self-Learning Course - 1 (NPTEL)			3	0	0	0	@	50	-	50	-	100
2	SLC	2	23ECSL2y	Self-Learning Course - 2 (NPTEL)			3	0	0	0	@	50	-	50	-	100
3	PPJ	3	23ECPRJ3	Major Project - Phase II			8				@	100	-	-	100	200
4	INT	1	23ECINT1	Industrial Internship			4				@	50	-	-	50	100
Total							18	0	0	0	0	250		100	150	500

SLC: Self Learning Course; Prj-PW: Project Phase Wise; INT: Internship; After 7th SEM exams, full time for Internship & Project equally divided; SLC courses to be started from 3rd SEM and to be completed by 7th SEM and evaluated and credited in 8th SEM.

Self-Learning course - 1 (NPTEL)			Self-Learning course - 2 (NPTEL)		
Course Code	Course Title	NPTEL Code	Course Code	Course Title	NPTEL Code
23ECSL11	Advanced Computer Architecture	noc24-cs06	23ECSL21	Business Intelligence & Analytics	noc24-cs65
23ECSL12	RF Transceiver Design	noc24-ee75	23ECSL22	Introduction To Environmental Engineering And Science - Fundamental And Sustainability	noc24-ge19
23ECSL13	Blockchain and its Applications	noc24-cs15	23ECSL23	Non-conventional energy Resources	noc24-ge24
23ECSL14	Introduction To Industry 4.0 And Industrial Internet Of Things	noc24-cs34	23ECSL24	Scientific Computing using Matlab	noc24-ma41
23ECSL15	Embedded Sensing, Actuation and Interfacing Systems	noc24-ee68	23ECSL25	Design and Analysis of VLSI Subsystems	noc24-ee44
23ECSL16	Industrial Automation And Control	noc24-ee56	23ECSL26	Applied Linear Algebra	noc24-ee48
23ECSL17	Modern Computer Vision	noc24-ee21	23ECSL27	Biomedical Signal Processing	noc24-ee49
23ECSL18	Optical Fiber Sensors	noc24-ee23	23ECSL28	Optical Wireless Communications for Beyond 5G Networks and IoT	noc24-ee59
23ECSL19	Semiconductor device modeling and Simulation	noc24-ee27	23ECSL29	VLSI Physical Design with Timing Analysis	noc24-ee77

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Dr. BABU. N.V
Prof & Academic Dean
SJB Institute of Technology
BGS Health & Education City
Kengeri, Bengaluru, 560060