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

SCHEME: 2023
SEM: III

Aca. Year.: 2024-25

Date:16/11/2023

SL No	Course Type	Course type Count	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	Teaching Hrs/Week				CIE Marks	Examinations				Tot. Marks
								L Lecture	T Tutorial	P Practical	S PBL/AB L		SEE				
													Dur.	Th. Mrks	Lab. Mrk		
1	IBSC	3	23MAI301	Mathematics-III	Maths	Maths	4	2	2	2		50	03	50	-	100
2	PCC	1	23IST302	Data Structure using C	ISE	ISE	3	2	2	0		50	03	50	-	100
3	IPCC	1	23ISI303	Computer Organization & ARM microcontroller	ISE	ISE	4	3	0	2		50	03	50	-	100
4	IPCC	2	23ISI304	OOPS with C++	ISE	ISE	4	2	2	2		50	03	50	-	100
5	PCCL	1	23ISL305	Data Structure Lab with C	ISE	ISE	1	0	0	2		50	03	-	50	100
6	ETC	1	23ISE31Y	Emerging Technology Course - 1	ISE	ISE	3	3	0	0		50	03	50	-	100
7	AEC	3	23ISAE31	Skill development Course - 3 (EWDP)	I.E.	I.E.	1	1	0	0	3	50	02	50	-	100
8	NCMC	3	23PDSN03	Personality Development-3 (HRD Training)	I.E.	I.E.	PP/NP	0	0	0	2	50	-	-	-	50
						Total	20	13	6	8	5	400	0	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 fulillment 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**
23ISE311	Mobile Computing
23ISE312	Visualization and Computational foundations for data science
23ISE313	Fuzzy Logic and Neural Networks
23ISE314	The Fundamentals of Block Chain Technology

H.N 16/11/2023

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18-11-2023

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

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

SCHEME: 2023
SEM: IV

Aca. Year.: 2024-25

Date:16/11/2023

SL No	Course Type	Course type Count	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	Teaching Hrs/Week				Examinations				Tot. Marks
								L Lecture	T Tutorial	P Practical	S PBL/AB L/	CIE Marks	SEE Dur.	SEE Th. Mrks	SEE Lab. Mrk	
1	IBSC	4	23MAI401	Mathematicss-IV	Maths	Maths	3	2	0	2		50	03	50	-	100
2	PCC	2	23IST402	Design and Analysis of Alogorithm	ISE	ISE	3	3	0	0		50	03	50	-	100
3	IPCC	3	23ISI403	Software Engineering & Project Management	ISE	ISE	4	3	0	2		50	03	50	-	100
4	IPCC	4	23ISI404	Operating System	ISE	ISE	4	3	0	2		50	03	50	-	100
5	PCCL	2	23ISL405	DAA Lab using JAVA	ISE	ISE	1	0	0	2		50	03	-	50	100
6	ETC	2	23ISE42Y	Emerging Technology Course - 2	ISE	ISE	3	3	0	0		50	03	50	-	100
7	HSMC	5	23SFHH06/ 23UHVH07	SFH or UHV	any dept	any dept	1	0	2	0	@	50	02	50		100
8	AEC	4	23ISAE41	Skill Development Course - 4 (EWDP)	I.E.	I.E.	1	1	0	0	3	50	02	50		100
9	NCMC	4	23PASN01	Phy. Education (Phy. Activities & Sports)	PED	PED	PP/NP	-	-	-	2	50	-	-	-	50
			23YOGN02	Yoga	PED	PED										
			23NSSN03	NSS	NSS	NSS										
			23NCCN04	NCC	NCC	NCC										
			23IKSN05	Inidan Knowledge System	HSS	HSS										
10	NCMC	5	23PDSN04	Personality Development-4 (HRD Training)	I.E.	I.E.	PP/NP	0	0	0	2	50	-	-	-	50
				Total			20	15	2	8	7	500	0	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**
23ISE421	Cyber Security and Cyber laws
23ISE422	Business Intelligence and applications
23ISE423	Quantum information and computing
23ISE424	Block chain for business

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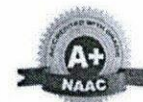Dr. Vishnuvardhan Road,
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AUTONOMOUS SCHEME (Tentative) UG - BE 3rd Year ISE

Aca. Year.: 2025-26

SCHEME: 2023
SEM: V

Date:16/11/2023

SL No	Course Type	Course type Count	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	L Lecture	T Tutorial	P Practical	S PBL/ABL/SL/othrs.	CIE Marks	SEE Dur.	SEE Th. Mrks	SEE Lab. Mrks.	Tot. Marks
1	PCC	3	23IST501	Database Management System	ISE	ISE	3	3	0	0		50	03	50	-	100
2	IPCC	5	23ISI502	Python Programming	ISE	ISE	4	3	0	2		50	03	50	-	100
3	IPCC	6	23ISI503	Data Communication and Networking	ISE	ISE	4	3	0	2		50	03	50	-	100
4	PCCL	3	23ISL504	DBMS Lab with Mini Project	ISE	ISE	1	0	0	2		50	03	-	50	100
5	PEC	1	23ISP51y	Professional Elective Course - 1	ISE	ISE	3	3	0	0		50	03	50	-	100
6	ETC	3	23ISE53y	Emerging Technology Course - 3	ISE	ISE	3	3	0	0		50	03	50	-	100
7	HSMC	6	23SFHH06/ 23UHVH07	SFH or UHV	any dept	any dept	1	0	2	0	@	50	02	50	-	100
8	AEC	5	23SAE51	Skill Development Course - 5 (EWDP)	I.E.	I.E.	1	1	0	0	3	50	02	50	-	100
9	NCMC	4	23PASN01	Phy. Education (Phy. Activities & Sports)	PED	PED	NP/PP	-	-	-	2	50	-	-	-	50
			23YOGN02	Yoga	PED	PED										
			23NSSN03	NSS	NSS	NSS										
			23NCCN04	NCC	NCC	NCC										
			23IKSN05	Indian Knowledge System	HSS	HSS										
10	NCMC	6	23PDSN04	Personality Development-5 (HRD Training)	I.E.	I.E.	PP/NP	0	0	0	2	50	-	-	-	50
				Total			**20**	**16**	**2**	**6**	**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
23ISP511	C# .Net Framework	23ISE531	Ethical Hacking
23ISP512	Storage Area Networks	23ISE532	Digital Marketing
23ISP513	Augmented reality	23ISE533	Generative AI
23ISP514	Server side -Java Script	23ISE534	Block Chain Applications

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

SCHEME: 2023
SEM: VI

Date:16/11/2023

SL No	Course Type	Course type Count	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	L Lecture	T Tutorial	P Practical	S PBL/ABL/ SL/othrs.	CIE Marks	SEE Dur.	SEE Th. Mrks	SEE Lab. Mrks.	Tot. Marks
1	PCC	4	23IST601	AI & ML	ISE	ISE	3	3	0	0		50	03	50	-	100
2	IPCC	7	23ISI602	Software Testing & Automation	ISE	ISE	4	3	0	2		50	03	50	-	100
3	PCCL	4	23ISL603	Machine Learning Lab	ISE	ISE	1	0	0	2		50	03	-	50	100
4	PEC	2	23ISP62y	Professional Elective Course - 2	ISE	ISE	3	3	0	0		50	03	50	-	100
5	OEC	1	23ISO61y	Open Elective Course - 1	any dept	any dept	3	3	0	0		50	03	50	-	100
6	ETC	4	23ISE64y	Emerging Technology Course - 4	ISE	ISE	3	2	0	2		50	03	50	-	100
7	AEC	6	23ISAE61	Innovation & Design Thinking	ISE	ISE	1	0	2	0	@	50	02	50	-	100
8	PRJ	1	23ISPRJ1	Mini Project	ISE	ISE	2	0	0	4	@	50	03	-	50	100
9	AEC	7	23ISAE62	Skill Development Course - 6 (EWDP)	I.E.	I.E.	1	1	0	0	3	50	02	50	-	100
10	NCMC	7	23PDSN04	Personality Development-6 (HRD Training)	I.E.	I.E.	PP/NP	0	0	0	2	50	-	-	-	50
				Total			21	15	2	10	5	500		350	100	950

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
23ISP621	File Structures	23ISO611	Introduction to Network Security			23ISE641	Internet of Things
23ISP622	Cloud Computing & Application	23ISO612	Introduction to Cloud Computing			23ISE642	Big Data Analytics
23ISP623	Automata Theory & Compiler Design	23ISO613	Programming in Java			23ISE643	Deep Learning
23ISP624	Mobile Application Development	23ISO614	Block Chain technologies			23ISE644	Block chain and distributed ledgers

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

SCHEME: 2023
SEM: VII

Date:16/11/2023

SL No	Course Type	Course type Count	Course Code	Course Title	Teaching Dept.	QP setting dept	Credits	Lecture (L)	Tutorial (T)	Practical (P)	PBL/ABL/ SL/othrs. (S)	CIE Marks	SEE Dur.	SEE Th. Mrks	SEE Lab. Mrks.	Tot. Marks
1	PCC	5	23IST701	Cryptography & Network Security	ISE	ISE	3	3	0	0		50	03	50	-	100
2	IPCC	8	23ISI702	Information retrieval system	ISE	ISE	4	3	0	2		50	03	50	-	100
3	IPCC	9	23ISI703	Research Methodology &Technical Writing Using Latex	ISE	ISE	4	3	0	2		50	03	50	-	100
4	PEC	3	23ISP73y	Professional Elective Course - 3	ISE	ISE	3	3	0	0		50	03	50	-	100
5	OEC	2	23ISO72y	Open Elective Course - 2	any dept.	any dept.	3	3	0	0		50	03	50	-	100
6	HSMC	7	23IST704	Management Course- Management Entrepreneurship, for IT Industry	ISE	ISE	2	2	0	0		50	03	50	-	100
7	PRJ	2	23ISPRJ2	Major Project - Phase I			2	0	0	0	@	50	03	-	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
23ISP731	Robotics and Automation	23ISO721	Introduction to Python
23ISP732	NOSQL	23ISO722	Introduction to AI &ML
23ISP733	Natural Language Processing	23ISO723	Introduction to Software Engineering
23ISP734	Angular and Node JS	23ISO724	Fundamentals of IoT

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

SCHEME: 2023
SEM: VIII

Date:16/11/2023

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/othrs.	CIE Marks	SEE Dur.	SEE Th. Mrks.	SEE Lab. Mrks.	Tot. Marks
1	SLC	1	23ISSL1y	Self-Learning Course - 1 (NPTEL)			3	0	0	0	@	50	-	50	-	100
2	SLC	2	23ISSL2y	Self-Learning Course - 2 (NPTEL)			3	0	0	0	@	50	-	50	-	100
3	PRJ	3	23ISPRJ3	Major Project - Phase II			8				@	100	-	-	100	200
4	INT	1	23ISINT1	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.

Sl. No	Self-Learning course - 1 (NPTEL)			Self-Learning course - 2 (NPTEL)		
	Course Code	Course Title	NPTEL Course Code	Course Code	Course Title	NPTEL Course Code
1	23ISSL11	Object Oriented System Development Using UML, Java And Patterns	noc24-cs40	23ISSL21	Advanced Computer Networks	noc24-cs11
2	23ISSL12	Foundations of Cryptography	noc24-cs01	23ISSL22	Artificial Intelligence : Search Methods For Problem Solving	noc23-cs92
3	23ISSL13	Reinforcement Learning	noc24-cs52	23ISSL23	Applied Accelerated Artificial Intelligence	noc23-cs104
4	23ISSL14	Social Network Analysis	noc23-cs106	23ISSL24	Advanced Distributed Systems	noc23-cs68
5	23ISSL15	Design & Implementation Of Human-Computer Interfaces	noc23-cs116	23ISSL25	Affective Computing	noc24-cs12
6	23ISSL16	Privacy And Security In Online Social Media	noc23-cs69	23ISSL26	Foundations of Cyber Physical Systems	noc24-cs27
7	23ISSL17	Introduction To Game Theory And Mechanism Design	noc23-cs117	23ISSL27	Parameterized Algorithms	noc23-cs102
8	23ISSL18	Statistical Learning For Reliability Analysis	noc23-cs84	23ISSL28	Data Structure And Algorithms Using Java	noc23-cs85
9	23ISSL19	Getting Started with Competitive Programming	noc24-cs29	23ISSL29	Artificial Intelligence: Knowledge	noc24-cs14
10	23ISSL20	Basics of Computational Complexity	noc24-cs05	23ISSL30	Circuit Complexity Theory	noc24-cs16

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