

Semester wise Credit Breakdown for B.E Degree Curriculum Batch 2025-2029

Sl. No	Category	Credits Per Semester								Total Credits	Credits in %
		I	II	III	IV	V	VI	VII	VIII		
1	HSMC		1			3				4	3%
2	PLC/ETC	7								7	4%
3	BSC/ASC	8	8	4						20	12%
4	IPCC			4	4	4	4	4		20	12%
5	PCC		4	6	9	4	3	8		34	21%
6	PEC					7	4	4		15	9%
7	OEC						3	4		7	4%
8	PCCL			1	1	1	1	1		5	3%
9	ESC	3	6	3	3					15	9%
10	AEC/ SEC/ SDC/ UHV	2	1	0	3	1	3			12	7%
11	INT								5	5	3%
12	PROJ						2	2	12	16	10%
13	SK			1	1	1	1	1		5	3%
Total		20	20	20+1	20+1	20+1	20+1	23+1	17	160+5	100%

ASC-Applied Science Course, BSC-Basic Science Course, ESC-Engineering Science Course
ETC-Emerging Technology Course, PLC-Programming Language Course, AEC-Ability Enhancement Course, SEC-Skill Enhancement Course, SDC-Skill Development Course, UHV Universal Human Values, CIE-Continuous Internal Evaluation, SEE-Semester End Examination, IC-Integrated Course, IPCC-Integrated Professional Core Course, MC-Mandatory Course (Non-credit), HSMC- Humanity Social Science & Management Course, BSC-Basic Science Course, PP-Pass/Progression, CMC-Non-Credit Mandatory Course, SEC-Skill Enhancement Course, PCC-Professional Core Course, PCCL-Professional Core Course Laboratory, PEC-Professional Elective Course, OEC-Open Elective Course, INT-Internship, PROJ-Project, SK-Skill Lab

III Semester

		BE in CSE(IOT&CSBT) Scheme of Teaching III Semester Outcome Based Education and Choice Based Credit System (CBCS) Effective from the academic year Batch - 2025-2029											
Sl. No	Course	Course Code	Course Title	Teaching Department (TD)/ Board	Teaching Hours /Week			TW	TH/ S	Examination			
					Theor y	Tutor ial	Practi cal			CIE Ma rks	SE E Ma rks	Total Marks	Credits
					L	T	P						
1	BSC	25IC31	Probability, Distributions and Statistics	Mathematics	3	2	0	50	120	50	50	100	4
2	PCC	25IC32	Operating Systems	IoT	3	0	0	48	90	50	50	100	3
3	PCC	25IC33	Data Structure & Applications	IoT	3	0	0	48	90	50	50	100	3
4	IPCC	25IC34	Digital Design & Computer Organization	IoT	3	0	2	50	120	50	50	100	4
5	PCCL	25ICL35	Data Structure & Applications lab	IOT	0	0	2	02	30	50	50	100	1
6	ESC/PLC	25IC36X	ESC/PLC	IoT	2	0	2	34	90	50	50	100	3
7	AEC	25IC37X	Ability Enhancement Course - III	IoT dept/IT Industry	0	0	2	02	30	50	50	100	1
8	NCMC	25NS38/ 25PE38/ 25YO38	NSS/ PE/ YOGA	NSS/YOGA/ PE coordinator	0	0	2	28	28	100	-	100	PP
9	SDC	25SC39	Community Project (Project based Learning) / Societal Project		0	0	2	30	30	50	50	100	1
Total									628	500	400	900	20
10	NCMC	25MDIP310	Mathematics course for Lateral Entry Students	Maths Dept	1	0	0	14	28	100	-	100	-
11	SK	25ICSK311	Skill Lab-1	IOT	0	0	2	02	30	50	50	100	1
Total									686	650	450	1100	20+1

NOTE: Minimum of 1 subject should have a tutorial component.

TW&SL – Term work

TH/S – Total Hours per semester

Engineering Science Course

ESC/ /PLC Courses

Course code	Course
25IC36A	Object Oriented Programming with Java
25IC36B	Object Oriented Programming with C++
25IC36C	Python for Data Science

Ability Enhancement Course

Course code	Course
25IC37A	IOT Case Studies and Future Trends
25IC37B	Project Management (With Git)

Skill Lab Courses

Course code	Course
25ICSK311	AI-Driven Internet of Things (AIoT)

IV Semester

BE in CSE (IOT&CSBT) Scheme of Teaching IV Semester Outcome Based Education and Choice Based Credit System (CBCS) Effective from the academic year Batch - 2025-2029													
Sl. No	Course	Course Code	Course Title	Teaching Department (TD)/ Board	Teaching Hours /Week			TW	TH/S	Examination			
					Theor y	Tutor ial	Practi cal			CIE Marks	SE E Marks	Tot al Marks	Credits
					L	T	P						
1	PCC	25IC41	Design and Analysis Algorithm	IoT	3	0	0	48	90	50	50	100	3
2	PCC	25IC42	Database Management System	IoT	3	0	0	48	90	50	50	100	3
3	PCC	25IC43	Introduction to Cyber Security	IoT	3	0	0	48	90	50	50	100	3
4	IPCC	25IC44	Microcontroller And IoT	IoT	3	0	2	50	120	50	50	100	4
5	PCCL	25ICL45	Design and Analysis Algorithm Lab	IoT	0	0	2	02	30	50	50	100	1
6	BSC/ESC	25IC46X	BSC/ESC	IoT Dept./ Mathematics Dept.	2	2	0	34	90	50	50	100	3
7	AEC	25IC47X	Ability Enhancement Course	IoT Dept./IT Industry	0	0	2	02	30	50	50	100	1
8	UHV	25UH48	Universal Human Values	Any Dept.	1	0	0	16	30	50	50	100	1
9	NCMC	25NS49/ 25PE49/ 25YO49	NSS/PE/YOGA	NSS/YOG A/ PE coordinator	0	0	2	28	28	100	-	100	PP
10	SDC	25SC410	Environmental Science Project	IOT	0	0	0	30	30	50	50	100	1
Total									628	550	450	1000	20
11	NCMC	25MDIP411	Mathematics course for Lateral Entry Students	Maths Dept	1	0	0	14	28	100	-	100	PP
12	SK	25ICSK412	Skill Lab-2		0	0	2	02	30	50	50	100	1
Total									686	700	500	1200	20+1

NOTE: Minimum of 1 subject should have a tutorial component.

TW&SL – Term work

TH/S – Total Hours per semester

**Engineering Science Course
(ESC/ETC/PLC)**

PLC courses

Course Code	Course
25IC46A	Linear Algebra
25IC46B	Discrete Mathematics Structures
25IC46C	Graph Theory
25IC46D	Optimization Technique

Ability Enhancement Course

Course Code	Course
25IC47A	Work place Security Practices
25IC47B	DBMS with SQL and Mango DB
25IC47C	Data Analytics for IoT
25IC47D	Problem Management in Cybersecurity

Skill Lab Courses

Course code	Course
25ICSK412	Cyber Security and its Applications

V Semester

BE in CSE (IOT&CSBT) Scheme of Teaching V Semester Outcome Based Education and Choice Based Credit System (CBCS) Effective from the academic year Batch (2025-2029)													
Sl. No	Course	Course Code	Course Title	Teaching Department (TD)/ Board	Teaching Hours /Week			TW	TH/S	Examination			
					Theory	Tutorial	Practical			CIE Marks	SEE Marks	Total Marks	Credits
					L	T	P						
1	HSMC	25IC51	Software Engineering & Project Management	IoT	3	0	0	48	90	50	50	100	3
2	PCC	25IC52	Theory of Computation	IoT	3	2	0	50	120	50	50	100	4
3	IPCC	25IC53	Computer Networks	IoT	3	0	2	50	120	50	50	100	4
4	PCCL	25ICL54	Vulnerability Assessment and Penetration Testing Laboratory	IoT	0	0	2	02	30	50	50	100	1
5	PEC	25IC55X	Professional Elective Course-I	IoT	3	0	0	48	90	50	50	100	3
6	PEC	25IC56X	Professional Elective Course-II	IoT	4	0	0	64	120	50	50	100	4
7	NCMC	25ES57	Environmental Studies and E-waste Management	CIVIL	1	0	0	14	28	100	-	100	PP
8	NCMC	25NS58 / 25PE58 / 25YO58	NSS/PE/ YOGA	NSS/P E/YO GA Coordinator	0	0	0	28	28	100	-	100	PP
9	SDC	25SC59	Hackathon Based Project	IOT	0	0	0	30	30	50	50	100	1
10	SK	25ICSK510	Skill Lab-3	IOT	0	0	2	02	30	50	50	100	1
Total									686	600	400	1000	20+1

NOTE: Minimum of 1 subject should have a tutorial component.

TW&SL – Term work

TH/S – Total Hours per semester

PEC Course

Sl. No	Career Path	PEC1	PEC2
1	Cyber Security Analyst	Ethical Hacking	Cyber Security and Threat Intelligence
2	Penetration Tester	Web penetration testing	Mobile Penetration
3	IoT Engineer	IoT Platforms & System Design	IoT System Architecture

Skill Lab Courses

Course code	Course
25ICSK510	Linux Programming

VI Semester

BE in CSE (IOT&CSBT)) Scheme of Teaching VI Semester Outcome Based Education and Choice Based Credit System (CBCS) Effective from the academic year Batch (2025-2029)													
Sl. No	Course	Course Code	Course Title	Teaching Department (TD)/ Board	Teaching Hours /Week			TW	TH/S	Examination			
					Theory	Tutorial	Practical			CIE Marks	SEE Marks	Total Marks	Credits
					L	T	P						
1	PCC	25IC61	Cryptography & Network Security	IoT	3	0	0	48	90	50	50	100	3
2	IPCC	25IC62	Block Chain Technology	IoT	3	0	2	50	120	50	50	100	4
3	PCCL	25ICL63	Advanced Network Security Lab	IoT	0	0	2	02	30	50	50	100	1
4	PEC	25IC64	Research Methodology and IPR	IoT	3	2	0	50	120	50	50	100	4
5	AEC	25IC65X	Professional Elective Course-III	IoT	3	0	0	48	90	50	50	100	3
6	OEC	25XX66X	Open Elective-I	Concerned Dept.	3	0	0	48	90	50	50	100	3
7	PROJ	25XXP67	Mini Project	IoT	0	0	0	60	60	100	-	100	2
8	NCMC	25NS68 / 25PE68 / 25YO68	NSS/PE/YOGA	NSS/YOGA/PE COORDINATOR	0	0	0	28	28	100	-	100	PP
9	NCMC	25IKS69	IKS	IoT	1	0	0	14	28	100	-	100	PP
10	SK	25ICSK610	Skill Lab-4	IOT	0	0	2	02	30	50	50	100	1
Total									686	650	350	1000	20+1

NOTE: Minimum of 1 subject should have a tutorial component.

TW&SL – Term work & Self Learning

TH/S – Total Hours per semester

PEC Course

Sl. No	Career Path	PEC3
1	Cyber Security Analyst	Cyber Forensics
2	Penetration Tester	IOT Penetration Testing
3	IoT Engineer	IoT Automation

Skill Lab Courses

Course code	Course
25ICSK610	Machine Learning and its Applications

(OEC Subjects Needs to be identified)

VII Semester

BE in CSE (IOT&CSBT)) Scheme of Teaching and Examination for VII Semester Outcome Based Education and Choice Based Credit System (CBCS) Effective from the academic Batch (2025-2029)													
Sl. No	Course	Course Code	Course Title	Teaching Department (TD)/ Board	Teaching Hours /Week			TW	TH/S	Examination			
					Theory	Tutorial	Practical			CIE Marks	SEE Marks	Total Marks	Credits
					L	T	P						
1	PCC	25IC71	Machine Learning	IOT	4	0	0	64	120	50	50	100	4
2	PCC	25IC72	Big data Analytics of IOT	IOT	3	2	0	50	120	50	50	100	4
3	IPCC	25IC73	Smart Contract Solidify Distributed Ledga Technology	IOT	3	0	2	50	120	50	50	100	4
4	PCCL	25ICL74	Machine Learning Lab	IOT	0	0	2	02	30	50	50	100	1
5	PEC	25IC75X	Professional Elective Course-IV	IOT	4	0	0	64	120	50	50	100	4
6	OEC	25XX76X	Open Eective-II	Concerne d Dept.	4	0	0	64	120	50	50	100	4
7	PROJ	25XXP77	Project Work Phase - 1	IOT	0	0	0	60	60	100	-	100	2
8	SK	25ICSK78	Skill Lab-5	IOT	0	0	2	02	30	50	50	100	1
Total									720	450	350	800	23+1

NOTE: Minimum of 1 subject should have a tutorial component.

TW&SL – Term work

TH/S – Total Hours per semester

PEC Course

1	Cyber Analytics
2	AI&ML at the Edge
3	System Integration for IOT

Skill Lab Courses

Course code	Course
25ICSK78	Industry 4.0

(OEC Subjects Needs to be identified)

VIII Semester

BE in CSE (IOT&CSBT)) Scheme of Teaching and Examination for VIII Semester Outcome Based Education and Choice Based Credit System (CBCS) Effective from the academic Batch (2025-2029)													
Sl. No	Course	Course Code	Course Title	Teaching Departmen t (TD)/ Board	Teaching Hours /Week			TW	TH/ S	Examination			
					The ory	Tut orial	Prac tical			CIE Mar ks	SEE Marks	Total Marks	Credits
					L	T	P						
1	INT	25INT81	Research / Industrial Internship	IOT	0	0	0	150	150	100	100	200	05
2	PROJ	25CIP82	Project Work Phase – II	IOT	0	0	0	360	360	100	100	200	12
Total									510	200	200	400	17

TW&SL – Term work

TH/S – Total Hours per semester