SGT University, Chandu-Budhera, Gurugram Faculty of Engineering & Technology Department of Computer Science & Engineering





B. Tech. Computer Science & Engineering

(B.Tech in CSE with Specialization in AI/ML, Full Stack Web Development and Cloud Computing, Cyber Security & Block Chain, iOS and Mobile Application Development, Gaming & Augmented Reality (Immersive Experience))

Scheme & Syllabus (2021-22 Onwards)

Vision of SGT University

"Driven by Research & Innovation, we aspire to be amongst the top ten Universities in the Country by 2022"

B-Tech Computer Science & Engineering

S. No.	Subject Code	Subject Name	Semester	6.00	т	P	c	Category A (Core/ ID/ VAC	Category B (Compulsory/ DE/ BSC/ EAS/ OE/ MC/ II/ MOOC)	Internal	External	Theory/ Practical
1		Applied Physics	1st	3	0	0	3	ID	BSC	40	60	Theory
2	in the second	Design Thinking	1st	3	0	0	3	ID	EAS	40	60	Theory
3	17	Computer Fundamental	1st	3	0	0	3	Core	Compulsory	40	60	Theory
4		Communication Skills-I	1st	2	0	0	2	ID	EAS	40	60	Theory
5		Object Oriented Programming	1st	3 '	0	0	3	Core '	Compulsory *	40	60	Theory
6		Value Addition Course-I	1st	2	0	0	2	VAC	VAC	40	60	Theory
7		Computer Fundamental Lab	1st	0	0	2	1	Core	Compulsory	60	40	Practical
8		Object Oriented Programming Lab	1st	0	0	2	1	Core	Compulsory	60	40	Practical
9		Communication Skills-I Lab	1st	0	0	2	1	ID	EAS	60	40	Practical
10		Ability Enhancement Mandatery Course 1	1st	2	0	0	2	ID	MC	40	60	Theory
		Total	1st	18	0	6	21					
1		Applied Mathematics	2nd	3	0	0	3	ID	BSC	40	60	Theory
2		Java Programming	2nd	2	0	0	2	Core	Compulsory	40	60	Theory
3		Basics of Data Structure	2nd	3	0	0	3	Core	Compulsory	40	60	Theory
4		Web Development	2nd	3	0	0	3	Core	Compulsory	40	60	Theory
5		Computer Architecture	2nd	3	0	0	3	Core	Compulsory	40	60	Theory
6	2 4 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Java Programming Lab	2nd	0	0	4	2	Core	Compulsory	60	40	Practical
7		Basics of Data Structure Lab	2nd	0	0	2	1	Core	Compulsory	60	40	Practical
8		Web Development Lab	2nd	0	0	2	1	Core	Compulsory	60	40	Practical
9		Design Lab	2nd	0	0	2	1	ID	EAS	60	40	Practical
10	,	Ability Enhancement Mandatery Course II	2nd	2	0-	0 .	2	D	/ MC	40	60	Theory
		Total	2nd	16	0	10	21	100		No. of the last		
1			3rd	3	0	0	3	Core	Compulsory	40	60	Theory
2		Database Management Systems	3rd	3	0	0	3	Core	Compulsory	40	60	Theory
3			3rd	3	0	0	(3)	Core	DE	40	60	Theory
4			3rd	3	0	0	(3)	Core	DE	40	60	Theory
5			3rd	4	0	0	4	(D)	OE	40	60	Theory
6		Operating System Lab	3rd	0	0	2	1	Core	Compulsory	60	40	Practical
7	•	Systems Lab	3rd	0	. 0	2	- 1	Core	Compulsory	60	40 ·	Practical
8			3rd	0	0	2	(1)	Core	DE	60	40	Practical
9			3rd	0	0	4w	2	Core	П	60	40	Practical
10			3rd	2	0	0 .	2	VAC	VAC .	60	40	Theory
11		Ability Enhancement Mandatery Course III	3rd	2	0	0	2	ID	МС	40	60	Theory
The state of the s		Total	3rd	20	0	6	25					

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1	Design and Analysis of Algorithm	4th	3	0	0	3	Core	Compulsory	40	60	Theory
2	Software Engineering	4th	3	0	0	3	Core	Compulsory	40	60	Theory
3	Department Electives-III	4th	3	0	0	3	Core	DE	40	60	Theory
4	Department Electives-IV	4th	3	0	0	3	Core	DE	40	60	Theory
5	Medical imaging techniques	4th	3	0	0	3	ID	EAS	40	60	Theory
6	Open Elective-II	4th	4	0	0	4	(ID)	OE	40	60	Theory
7 .	Design and Analysis of Algorithm Lab	4th	0	. 0	2	. 1	Core .	Compulsory .	60	40 .	Practical
8	Department Electives Lab-III	4th	0	0	2	0	Core	DE)	60	40	Practical
9	Research Methodology	4th	3	0	0	3	ID	EAS	60	40	Theory
	Total	4th	22	0	4	24					
1	Theory of Computation	5th	3	0	0	3	Core	Compulsory	40	60	Theory
2	Data Communication & Networking	5th	3	0	. 0	3	Core	Compulsory	40	60	Theory
3	Department Electives-V	5th	3	0	0	3	Core	DE	40	60	Theory
4	Department Electives-VI	5th	3	0	0	3	Core	DE	40	60	Theory
15	Open Elective-III	5th	4	0	0/	4	ID:	OE /	40	/ 60	Theory
6	Medical informatics	5th	3	0	0	3	ID	EAS	40	60	Theory
7.	Data Communication & Networking Lab	5th	0 .	0	2	. 1	Core .	Compulsory .	60	40	Practical
8	Department Electives Lab-VI	5th	0	0	2	1	Core	DE	60	40	Practical
9	Ability Enhancement Mandatery Course IV	5th	2	0	0	2	ID	мс	40	60	Theory
10	Industrial Training-I	5th	0	0	4w	2	Core	II	60	40	Practical
R. August Age	Total	5th	21	0	4	25					
1	Compiler Design	6th	3	0	0	3	Core	Compulsory	40	60	Theory
2	Artificial Intelligence	6th	3	0	0	3	Core	Compulsory	40	60	Theory
3	Department Electives-VII	6th	(3)	0	0	(3)	Core	DE	40	60	Theory
4	Department Electives-VIII	6th	3	0	0	(3)	Core	DE	40	60	Theory
5	Open Elective-IV	6th	4	0	0	(4)	(ID)	OE	40	60	Theory
6	Compiler Design Lab	6th	0	0	2	1	Core	Compulsory	60	40	Practical
7	Artificial Intelligence Lab	6th	0	0	2	1	Core	Compulsory	60	40	Practical
8	Value Addition Course-III	6th	2	0	0	2	VAC	VAC	60	40	Theory
	Total	6th	18	0	4	20				100	

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1		Department Electives-IX	7th	3	0	0	3	Core	DE	40	60	Theory
2		Embedded system and its Biomedical applications	7th	3	0	0	3	Core	Compulsory	40	60	Theory
3	Strain and	Department Electives-X	7th	3	0	0	3	Core	DE	40	60	Theory
4		Department Electives Lab-IX	7th	0	0	2	1	Core	DE	60	40	Practica
5		Capstone Project	7th	0	0	4	2	Core	Compulsory	60	40	Practical
6		Industrial Training-II	7th	0	0	6w	3	Core	II	60	40	Practical
7		Value Addition Course-IV	7th	2	0	0	2	VAC	VAC	40	60	Theory
		Total	7th	11	0	6	17					-
1		Industrial Internship with Project (Industrial oriented/Research oriented)	8th.		•	20W	10.	Core	. п	. 100	100	. Practical
		Total	8th				10					
	1 Sec. 19	Overall Total	1st to 8th			1,200	163					

Note:

- 1. Mooc Course: Student will be offered various available SWAYAM MOOC Courses in leiu of various regular core (Compulsary and Department Electives) courses. A student can opt maximum of 2 MOOC courses in a semester for credit transfer with prior permissin and out of the list published by the department prior to start of the semester.
- 2. Student can opt for Honours degree by earning 18 20 additional credits through SWAYAM MOOC courses but with prior permission of the department and limit to the courses related to the Discipline.
- 3. A student can have Honours degree WITH SPECIALIZATION in the particular of his/her branch by earning 18-20 additional credits in particular specialization through MOOC or Departmental Elective bucket with Permission of the Department
- 4. Courses Highlighted in green need to be fixed according to the group (ME+CE in one group and CSE+ECE other group. Value added, RM and Mandatory courses also need to be fixed in numbers but department can put in any semester as per requirement (In order to balance the courses and credits in a semester. Internship credits need to be fixed as shown above.

	Abbrevation Used:
ID	Interdisciplinary
VAC	Value Addition Course
DE	Department Electives
BSC	Basic Science Courses
EAS	Engineering Applied Science
п	Industrial Internship
мс	Mandatory Courses (Non- Credit

Credit Distribution

Core Credits

Other Credits

Interdisciplinary Credits

Core	109
Other	
(Interdisci plinary + VAC)	54
Total	163

Compulso ry	58
Departme nt Electives	34
Industrial Internship	17
Total	109

Interdisci plinary	46			
VAC	8			
Total	54			

Basic Science Courses	6
Engineering Applied	16
Science	
Open Elective	. (16)
Mandatory Courses - 4 Courses (Non-Credit))	8
Total	46

B-Tech Computer Science & Engineering (Reasearch)

S. No.	Subject Code	Subject Name	Semester	L	Т	P	c	Category A (Core/ ID/ VAC	Category B (Compulsory/ DE/ BSC/ EAS/ OE/ MC/ II/	Internal	External	Theory/ Practica
1		Applied Physics	1st	3	0	0	3	ID	BSC	40	60	Theory
2		Design Thinking	1st	3	0	0	3	ID	EAS	40	60	Theory
3	100	Computer Fundamental	1st	3	0	0	3	Core	Compulsory	40	60	Theory
4		Communication Skills-I	1st	2	0	0	2	ID	EAS	40	60	Theory
5		Object Oriented Programming	lst	3	0	. 0	3	Core	Compulsory	40	60	Theory
6		Value Addition Course-I	1st	2	0	0	2	VAC	VAC	40	60	Theory
7		Computer Fundamental Lab	1st	0	0	2	1	Core	Compulsory	60	40	Practical
8		Object Oriented Programming Lab	1st	0	0	2	1	Core	Compulsory	60	40	Practical
9		Communication Skills-I Lab	lst	0	0	2	1	ID	EAS	60	40	Practical
10		Ability Enhancement Mandatory Course 1	1st	2	0	0	2	ID	MC	40	60	Theory
		Total	1st	18	0	6	21		APPLE D			
1		Applied Mathematics	2nd	3	0	0	3	ID	BSC	40	60	Theory
2		Java Programming	2nd	2	0	0	2	Core	Compulsory	40	60	Theory
3		Basics of Data Structure	2nd	3	0	0	3	Core	Compulsory	40	60	Theory
4		Web Development	2nd	3	0	0	3	Core	Compulsory	40	60	Theory
5		Computer Architecture	2nd	3	0	0	3	Core	Compulsory	40	60	Theory
6		Java Programming Lab	2nd	0	0	4	2	Core	Compulsory	60	40	Practical
7		Basics of Data Structure Lab	2nd	0	0	2	1	Core	Compulsory	60	40	Practical
8		Web Development Lab	2nd	0	0	2	1	Core	Compulsory	60	40	Practical
9		Engineering Graphics and Design Lab	2nd	0	0	2	1	ID	EAS	60	40	Practical
10		Ability Enhancement mandatory Course II	2nd	2	0	0	2	ID	МС	40	60	Theory
		Total	2nd	16	0	10	21		,		-	
1		Operating System	3rd	3	0	0	3	Core	Compulsory	40	60	Theory
2		Database Management Systems	3rd	3	0	0	3	Core	Compulsory	40	60	Theory
3		Department Electives-I	3rd	3	0	0	(3)	Core	DE	40	60	Theory
4	100	Department Electives-II	3rd	3	(0)	(0)	(3)	Core	DE	(40)	60	Theory
5		Open Elective-I	3rd	4	0	0	4	ID	OE	40	60	Theory
6		Operating System Lab	3rd	0	0	2	1	Core	Compulsory	60	40	Practical
7		Database Management Systems Lab	3rd	0	0	2	1	Core	Compulsory	- 60	40	Practical
8		Department Electives Lab-I	3rd	0	0	2	0	Core	DE	60	40	Practical
9		Industrial Internship	3rd	0	0	4w	2	Core	п	60	40	Practical
10		Value Addition Course-II	3rd ·	2	0 .	0	2	·VAC	VAC	- 60	40	Theory
11		Ability Enhancement mandatory Course III	3rd	2	0	0	2	ID	мс	40	60	Theory
	SALES ACCOUNTS AND MADE	Total	3rd	20	0	6	25	335				

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. [Design and Analysis of Algorithm	4th	3	0	0	3	Core	Compulsory	40	60	Theory
1	Software Engineering	4th	3	0	0	3	Core	Compulsory	40	60	Theory
2	Department Electives-III	4th	3	(0)	(6)	3	Core	DE	40	60	Theory
3	Department Electives-IV	4th	3	0	0	3	Core	DE	40	60	Theory
-	Medical imaging techniques	4th	3	0	.0	3	ID	EAS	40	60	Theory
5	Open Elective-II	4th	4	0	0	4	ID	OE	40	60	Theory
6		4th	. 0	0	2-	1	Core -	Compulsory	60 -	40	Practical
7	200.60	4th	0	0	(2)	0	Core	DE	60	40	Practical
8	Department Electives Lab-III	4th	3	0	0	3	ID	EAS	60	40	Theory
9	Research Methodology	4th	22	0	4	24					
	Total	5th	3	0	0	3	Core	Compulsory	40	60	Theory
1	Theory of Computation	5th	3	0	0	3	Core	Compulsory	40	60	Theory
2	Data Communication & Networking	5th	3	0	0	3	Core	DE	40	60	Theory
3	Department Electives-V	PRESENT.	(3)	0	0	3	Core	DE	40	60	Theory
4	Department Electives-VI	5th	4	0	0	4	1D	OE)	40	60	Theory
5	Open Elective-III	5th		100	0	3	ID	EAS	40	60	Theory
6	Medical informatics Data Communication & Networking	5th	3	0		1	Core	Compulsory	60	40	Practical
7	Lab	5th	0	0	2		AND SALES OF THE PARTY OF THE P	DE	60	40	Practical
8	Department Electives Lab-VI	5th	0	0	2	0	Core	THE SAME OF THE SA	38897	60	Theory
9	Ability Enhancement mandatory Course IV	5th	2	0	0	2	ID	МС	40	7	
10	Industrial Training-I	5th	0	0	4w	2	Core	П	60	40	Practical
	Total	5th	21	0	4	25		26.5		200	
1	Compiler Design	6th	3	0	0	3	Core	Compulsory	40	60	Theory
2	Artificial Intelligence	6th	3	0	0	3	Core	Compulsory	40	60	Theory
3	Department Electives-VII	6th	3	0	0	3	Core	DE	40	60	Theory
4	Department Electives-VIII	6th	3	0	0	(3)	Core	DE	40	60	Theory
S	Open Elective-IV	6th	4	0	(0)	4	ID	OE	40	60	Theory
6	Compiler Design Lab	6th	0	0	2	1	Core	Compulsory	60	40	Practical
7	Artificial Intelligence Lab	6th	0	0	2	1	Core	Compulsory	60	40	Practical
8	Value Addition Course-III	6th	2	0	0	2	VAC	VAC	60	40	Theory
	Total	6th	18	0	4	20					

1	Department Electives-IX	7th	3	0	0	3	Core	DE	40	60	Theory
(2)	Embedded system and its Biomedical Applications	7th	3	0	0	3	Core	Compulsory	40	60	Theory
3	Department Electives-X	7th	3	0	0	3	Core	DE	40	60	Theory
4	Department Electives Lab-IX	7th	0	0	2	0	Core	DE	40	60	Practical
(5)	Research Phase-1	7th	0	0	0	10	Core	Kesearch	60	40	Practical
6	Industrial Training-II	7th	0	0	6w	3	Core	Track	60	40	Practical
7	Value Addition Course-IV	7th	2	0	0	2	VAC	VAC	40	60	Theory
	Total	7th	11	0	2	25					Theory
1	Department Electives-XI	8th	(3)	(0)	. (0)	3	Core	DE	40	60	Theory
2	Department Electives-XII	8th	(3)	0 .	(0)	3	· Core	DE .	40	60	Theory
3	IPR and Patenting	8th	3	0	0	3	Core	EAS	60	40	Practical
4	Research Phase-II	8th		2201	- 1	10	Core	Research	60	40	Practical
	Total	8th	9	. 0	0	19		Track	-		Tractical
	Overall Total	1st to 8th		100		180					

Note:

1. Mooc Course: Student will be offered various available SWAYAM MOOC Courses in leiu of various regular core (Compulsary and Department
2. Student can opt for Honours degree by earning 18 - 20 additional credits through SWAYAM MOOC courses but with prior permission of the
3. A student can have Honours degree WITH SPECIALIZATION in the particular of his/her branch by earning 18-20 additional credits in particular
4. Courses Highlighted in green need to be fixed according to the group (ME+CE in one group and CSE+ECE other group. Value added, RM and

	Abbrevation Used:
ID	Interdisciplinary
VAC	Value Addition Course
DE	Department Electives
BSC	Basic Science Courses
EAS	Engineering Applied Science
II	Industrial Internship
MC	Mandatory Courses (Non- Credit)

Cr	edit
Core	123
Other (Inter discip linary	57
Total	180



Core C	redits
Compulso ry	56
Departme nt Electives	40
Industrial Internship	7
Research Track	20
Total .	123

Other C	redits
Interdisci plinary	49
VAC	8
Total	57

Interdisciplinar	y Credi
Basic Science Courses	6
Engineering Applied Science	19
Open Elective	16
Mandatory Courses - 4 Courses (Non-	8
Total	49

B-Tech Computer Science & Engineering (Integrated)

S. No.	Subject Code	Subject Name	Semester	L.	т	P	С	Category A (Core/ ID/ VAC	Category B (Compulsory/ DE/ BSC/ EAS/ OE/ MC/ II/MOOC)	Internal	External	Theory/ Practical
		A 11 d Marrian	1st	3	0	0	3	ID	BSC	40	60	Theory
1	161.0	Applied Physics	1st	3	0	0	.3	ID	EAS	. 40	60 .	Theory
· 2		Design Thinking .	1st	3	0	0	3	Core	Compulsory	40	60	Theory
3		Computer Fundamental	1st	2	0	0	2	ID	EAS	40	60	Theory
4		Communication Skills-I	1st	3	0	0	3	Core	Compulsory	40	60	Theory
5		Object Oriented Programming	1st	2	0	0	. 2	VAC	VAC	40	60	Theory
6		Value Addition Course-I	1st	0	0	2	1	Core	Compulsory	60	40	Practical
8		Computer Fundamental Lab Object Oriented Programming Lab	1st	0	0	2	1	Core	Compulsory	60	-40	Practical
9		Communication Skills-I Lab	lst	0	0	2	1	ID	EAS	60	40	Practical
10	,	Ability Enhancement Mandatery Course 1	1st.	2	0	0	, 2	ID,	MC ,	40	_ 60	Theory
		Total	1st	18	0	6	21			40	60	Theory
1		Applied Mathematics	2nd	3	0	0	. 3	ID	BSC	40	60	Theory
2		Java Programming	2nd	2	0	0	2	Core	Compulsory	40	60	Theory
3		Basics of Data Structure	2nd	3	0	0	3	Core	Compulsory		60	Theory
4		Web Development	2nd	3	0	0	3	Core	Compulsory	40	60	Theory
5		Computer Architecture	2nd	3	0	0	3	Core	Compulsory	60	40	Practical
6		Java Programming Lab	2nd	0	0	4	2	Core	Compulsory	A CONTRACTOR OF THE PARTY OF TH	40	Practical
7		Basics of Data Structure Lab	2nd	0	0	2	1	Core	Compulsory	60	40	Practical
8		Web Development Lab	2nd	0	0	2	1	Core	Compulsory	60	40	
9		Engineering Graphics and Design	2nd	0	0	2	1	ID	EAS	60	40	Practical
10		Ability Enhancement Mandatery Course II	2nd	2	0	0	2	ID	MC	40	60	Theory
		Total	2nd	16	0	10	21		0 1	40	60	Theory
1		Operating System	3rd	3	0	0	3	Core	Compulsory	The same of the same of		Company of the last of the las
2		Database Management Systems	3rd	3	0	0	3	Core	Compulsory	40	60	Theory
3		Department Electives-I	3rd	3	0	0	3	Core	DE	40	60	Theory
(4)		Department Electives-II	3rd	3	0	0	3	Core	DE	40	60	Theory
5		Open Elective-I	3rd	4	0	0	4	ID	OE	60	40	Practical
6		Operating System Lab	3rd	0	. 0	2	1	Core	Compulsory	60	The second second	
7		Database Management Systems	3rd	0	0	2	1	Core	Compulsory	60	40	Practical Practical
. 8	G 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	Department Electives Lab-I	3rd	. 0	0	. 2	1	Core	. DE	60	40	Practical
9	THE RESERVE OF THE PARTY OF THE	Industrial Internship	3rd	0	0	4w	2	Core	Ш	60	and the second second	Theory
		Value Addition Course-II	3rd	2	0	0	2	VAC	VAC	60	40	Theory
10		Ability Enhancement Mandatery	3rd	2	0	0	2	ID	мс	40	60	Theory

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BOARD BOARD	Total	3rd	20	0	6	25	1000			No. of the last of	
1	Design and Analysis of Algorithm	4th	3	0	0	3	Core	Compulsory	40	60	Theory
2	Software Engineering	4th	3	0	0	3	Core	Russian American			
3	Department Electives-III	4th	3	0	0	3		Compulsory	40	60	Theory
4	Department Electives-IV	4th	3	0	0	3	Core	DE	40	60	Theory
5	Medical imaging techniques	4th	3	0	0		Core	DE	40	60	Theory
6	Open Elective-II	4th		0	0	3	ID	EAS	40	60	Theory
7	Design and Analysis of Algorithm			10	0	4	ID	OE	40	60	Theory
	Lab	4th	0	0	2	1	Core	Compulsory	60	40	Practical
8	Department Electives Lab-III	4th	0	0	2	1	Core	DE	60	40	
9	Research Methodology	4th	3	0	0	3	ID	EAS	60	40	Practical
And the last of th	Total	4th	22	0	4	24	950 FN436	Lito	00	40	Theory
1	Theory of Computation	5th	3	0	.0	3	Core	Compulsory	40 '	- 60	
2	Data Communication & Networking	5th	3	0	0	3	Core	Compulsory	40	60	Theory
3	Department Electives-V	5th	3	0	- 6	3		DESIGNATION OF THE PERSON OF T			Theory
4	Department Electives-VI	5th	3	0	0	3	Core	DE	40	60	Theory
5	Open Elective-III	5th	- 4	0	0	3	Core	DE	40	60	Theory
6	Medical informatics	5th	3	0	0	4	D	OE	40	60	Theory
7	Data Communication &			-	0	3	ID	EAS	40	60	Theory
Marie Santi	Networking Lab	5th	0	0	2	1	Core	Compulsory	(60)	40	Practical
8	Department Electives Lab-VI	5th	0	0	(2)	(10)	Core	January Company of the Company of th	The second second	1000	CONTRACTOR
9	Ability Enhancement Mandatery Course IV	5th	2	0	0	2	ID .	MC MC	60	60	Practical
10	Industrial Training-I	5th	0	0	4w	2	Core				Property of
	Total	5th	21	0	4	25	Core	П	60	40	Practical

		I/A	2		0	3	Core	Compulsory	40	60	Theory
1	Compiler Design	6th	3	0	0	3	Core	Compulsory	40	60	Theory
2	Artificial Intelligence	6th	3	0	0	1 2	Core	DE	40	60	Theory
3	Department Electives-VII	6th	(3)	0	V ·	2	COL	08	40	60	Theory
4	Department Electives-VIII	C(f)	9	0	0	- 9	44.9	OF	40	60	Theory
5	Open Elective-IV	6th	4	0	0	4	(ID)		60	40	Practical
6	Compiler Design Lab	6th	0	0	2	N N	Core	Compulsory	60	40	Practical
7	Artificial Intelligence Lab	6th	0	0	2	1	Core	Compulsory	60	40	Theory
8	Value Addition Course-III	6th	2	0	0	2	VAC	VAC	00	10	
	· Total	6th	18	0	- 4	20 -	ALCOHOLD .	•	40	60	Theory
1 100	Department Electives-IX	7曲	3	0	0	(3)	Core	DE	40	00	Theory
2	Embedded system and its Biomedical Applications	7th	3	0	0	3	Core	Compulsory	40	60	Theory
		7th	(3)	0	0	3	Core	DE	40	60	Theory
3	Department Electives-X	7th	0	0	2	1	Core	DE	40	60	Practical
4	Department Electives Lab-IX	CONSTRUCT	100		C CONTRACTOR	10	Core	Research Track	60	40	Practical
5	Research Phase-1	7th	0	0	6w	3	Core	П	60	40	Practical
6	Industrial Training-II	7th	-	0	0	2	VAC	VAC	40	60	Theory
7	Value Addition Course-IV	7th	2	-	2	25	1110				
DELLES COME	Total	7th	11	0		3	Core	DE	40	60	Theory
1	Department Electives-XI	8th	3	0	(0)	/(3)	Core	DE	40	60	Theory
2	Department Electives-XII	8th	3	0	0	3		EAS	60	40	Practical
3	IPR and Patenting	8th	3	0	0	3	Core		- 60	40	Practical
4	. Research Phase-II	8th	-	200-00		10	Core	Research Track	. 60	40	- Tructions
	Total	8th		9 0		0 19					
	Overall Total	1st to 8th				180					

1. Mooc Course: Student will be offered various available SWAYAM MOOC Courses in leiu of various regular core (Compulsary and Department Electives) courses. A student can opt
2. Student can opt for Honours degree by earning 18 - 20 additional credits through SWAYAM MOOC courses but with prior permission of the department and limit to the courses related
3. A student can have Honours degree WITH SPECIALIZATION in the particular of his/her branch by earning 18-20 additional credits in particular specialization through MOOC or
4. Courses Highlighted in green need to be fixed according to the group (ME+CE in one group and CSE+ECE other group. Value added, RM and Mandatory courses also need to be fixed in

Abbrevation Used:
Interdisciplinary
Value Addition Course
Department Electives
Basic Science Courses
Engineering Applied Science
Industrial Internship
Mandatory Courses (Non-Credit)

Credit Dis	tribution
Core	123
Other (Interdisci plinary + VAC)	57
Total	180



Core Cr	edits
Compulsory	.56
Department Electives	40
Industrial Internship	7
Research Track	20
Total	123

Other Credits				
Interdisciplinary	49			
VAC	8			
Total	57			

Interdisciplinary (Credits
Basic Science Courses	6.
Engineering Applied Science	19
Open Elective	(16)
Mandatory Courses - 4 Courses (Non- Credit))	8
Total	49

For Five Year Integrated M. Tech. and For Candidates having B. Tech. with research track (Atleast 180 credits)

1.	Distributed Computing	9th	3	0	0	3	Core	Compulsory	40	1 60	Total .
2.	AI & Soft Computing	9th	3	0	0	3	Core	Compulsory	40	60	Theory
3.	Department Electives-XIII	9th	(3)	0	0	(3)	Core				
4.	Department Electives-XIV	9th	(3)	0	0	3	Core	DE)	40	60	Theory
5.	Department Electives-XV	9th	(3)	0	0	(3)	Core		40	60	Theory
6.	AI & Soft Computing Lab	9th	0	0	4	2	Core	DE	40	60	Theory
				V		2	Core	Compulsory	60	40	Practica
7.	Department Electives Lab-XIII	9th	0	0	2	- 0	Core	DE	60	100	
(8.)	. Department Electives Lab-XV	9th	. 0	0	2		Core	DE .		40	Practica
9.	Distributed Computing Lab	9th	0	0	2		Core	- Section 1	, 60	40	Practica
10.	Value Added Courses-V	9th	2	0		1		Compulsory	60	40	Practica
	Total	, L	17	0	10	22	VAC	VAC	40	60	Theory
1.	Dissertation	10th		U							
	2 idoorium off	Tour		•	20 W	20	Core	Research Track	100	100	Practical
		SE CHECK				42					The second lines

Overall Total Credits = I to X = 222

- 1. Mooc Course: Student will be offered various available SWAYAM MOOC Courses in leiu of various regular core (Compulsary and Department Electives) courses. A
- 2. Student can opt for Honours degree by earning 18 20 additional credits through SWAYAM MOOC courses but with prior permission of the department and limit to the 3. A student can have Honours degree WITH SPECIALIZATION in the particular of his/her branch by earning 18-20 additional credits in particular specialization through 4. Courses Highlighted in green need to be fixed according to the group (ME+CE in one group and CSE+ECE other group. Value added, RM and Mandatory courses also

Credit Di	stribution
Core	163
Other	
(Interdisci	
plinary+	Arc. S. Marie
VAC)	59
Total	222



Core Cr	edits
Compulsory	64
Department Electives	52
Industrial Internship	7/
Research Track	40
Total	163

Other Cred	its
Interdisciplinary	49
VAC	10
Total	59

Interdisciplinary	Credits
Basic Science Courses	6
Engineering Applied Science	19
Open Elective	16
Mandatory Courses - 4 Courses (Non- Credit))	8
Total	49

Budhei	SG	Reg
heila,	5	istha
Gurugrai	niversity	-
11 (1964)		

1000	Print tons				0	3	Core	Compulsory	40	60	Theory
	Operating System	3rd	3	0		ALCOHOLD TO A	Core	Compulsory	40	60	Theory
	Database Management Systems	3rd	3	0	0	3			40	60	Theory
	User Interface Advanced Techniques	3rd	2	0	0	2	Core	SE			
		3rd .	2	0	. 0	2	Core	SE	40	. 60	Theory
	Language with Objective C		4	0	0	(4)	(D)	OE	40	60	Theory
	Open Elective-I	3rd		2010-00	2	1	Core	Compulsory	60	40	Practical
,	Operating System Lab	3rd	0	0	2	1	Core		60	40	Practical
,	Database Management Systems Lab	3rd	0	0	2	1	Core	Compulsory	60	40	Practical
3	User Interface Advanced Techniques Lab	3rd	0	0	2	1	Core	SE	60	40	Practical
,	Objective Oriented Programming	3rd	0	0	2	1	Core	SE			Practical
	Language with Objective C Lab	3rd	0	0	4w	2	Core	II	60	60	Theory
10	Industrial Internship	3rd	2	0	0	2	VAC	VAC	40		
1 2	Value Addition Course-II Ability Enhancement Mandatery	3rd	2	0	0	2	ID	МС	40	60	Theory
100	Course III Total	3rd	18	0	8	24	0	Compulsory	40	60	Theory
1	Design and Analysis of Algorithm	4th	3	0	0	3	Core	Compulsory	40	60 /	Theory
2	Software Engineering	4th	3	0	0	3	Core	DE	40	60	Theory
3	Department Electives-III	4th	3	0	0	3	Core	SE	40	60	Theory
4	Swift Programming language	4th	2	0	0	2	Core				There
5	iCloud and Cloud tools and Techniques for Back end	4th	2	0	0	2	Core	SE	40	60	Theory
	development	4th	10	0	0	4	ID	OE	40	60	
6	Open Elective-II Design and Analysis of Algorithm	100000000000000000000000000000000000000	0	0	2	1	Core	Compulsory	60	40	Practical
7	Lab	4th					Core	DE	(60)	40	Practical
8	Department Electives Lab-III	4th	0	0	2 2	1	Core	SE	60	40	Practical
9	Swift Programming language Lab iCloud and Cloud tools and Techniques for Back end	4th	0	0	2	1	Core	SE	60	40	Practical
	development Lab Research Methodology	4th	3	0	0	3	ID	EAS	40	60	Theory
11		4th	20	0	8	24			40	60	Theory
	Total Theory of Computation	5th	3	0	0	3	Core	Compulsory	40	CONTRACTOR OF THE PARTY OF THE	
2	Data Communication & Networkin	THE REAL PROPERTY.	3	0	0	3	Core	Compulsory	40	60	Theory
3	Mobile Application Development/ iPhone Operating System Basic	5th	2	0	0	2	Core	SE	40	60	Theory
		-	3	0	0	(3)	Core	(DE)	40	60	Theory
4	Department Electives-VI	5th				4	ID)	OE	40	60	Theory
6	Open Elective-III	5th	4	0	0		Core	SE ·	40	. 60	Theory
6 .	Mobile device Management (Security and Forensics)	5th	2	0	• 0	2		SE	60	40	Practical
7	Mobile device Management (Security and Forensics) Lab	5th	0	0	2	1	Core	SE.		40	Practical
8	Mobile Application Development/ iPhone Operating System Basic la	5th	0	0	2	1	Core	SE	60	40	
	Data Communication & Network		0	0	2	1	Core	Compulsory	60	40	Practical Practical
9	Lab Charles Tab VI	5th	0	0	(2)	(1)	Core	DE	60	40	
10	Department Electives Lab-VI Ability Enhancement Mandatery	5th	2	0	100	2	ID	мс	40	60	Theory Practica
	Course IV	5th	0	0	4w	2	Core	I	60	40	Practica
12	Industrial Training-I	Jui	U	0	8	25	THE RESERVE OF THE PERSON NAMED IN	THE RESIDENCE OF THE PARTY OF T	STATE OF THE PARTY	THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.	A ROLL OF THE REAL PROPERTY.

		Overall Total	lst to 8th				177		10-10-10-10-10-10-10-10-10-10-10-10-10-1			
T	otal Credits	Total	8th				20	7 14				Fracucal
1		Internships and Placements	8th	-		20W	20	Core	п	100	100	Practical
		Total	7th	13	6	8	20	,	1	,	00	Theory
9		Value Addition Course-IV	7th	2	0	0	2	VAC	VAC	40	60	
8		Industrial Training-II	7th	0	. 0	6w	3 .	Core	П	60 .	40	Practical
7		Capstone Project	7th	0	0	4	2	Core	Compulsory	60	40	Practical
6		iPhone Operating System Practical Implementation Techniques Lab	8th	0	0	2	1	Core	SE	60	40	Practical
5		Department Electives-X	7th	3	0	0	3	Core	(DE)	40	60	Practical
		Department Electives Lab-IX	7th	0	0 .	(2)	(1)	Core	DE	60	40	
3		iPhone Operating System Practical Implementation Techniques	7th	2	0	0	2	Core	SE	40	60	Theory
2		Embedded system and its biomedical applications	7th	3	0	0	3	Core	Compulsory	40	60	Theory
ì		Department Electives-IX	7th	3	0	0	3	Core	DE	40	60	Theory
		Total	6th	19	0	6	22	VAC	· VAC	40	60 .	Theory
10		Value Addition Course-III	6th	-2	0	0	. 2	VAC	SE	60	40	Practica
9		iCloud Security +iOS Development Lab	AT THE RESERVE OF THE PARTY OF	0	0	2	1	Core	SE	60	40	Practice
8		Cyber Forensics and Investigations (New) Lab	6th	0	0	2		Core	Compulsory	60	40	Practic
7		Compiler Design Lab	6th	0	0	2	4	(D)	OE	40	60	Theor
6		Department Electives-VIII Open Elective-IV	6th	3	0	0	3	Core	DE	(40)	60	Theor
(5)		The second secon	6th	3	0	0	(3)	Core	DE	(40)	60	Theor
4		iCloud Security +iOS Development Department Electives-VII		2	0	0	2	Core	SE	40	60	Theor
(3)		(New)	om	2	0	0	2	Core	SE	40	60	Theor
2	The same	Compiler Design Cyber Forensics and Investigations	6th	3	0	0	3	Core	Compulsory	40	60	Theor

Note:

1. Moor Course: Student will be offered various available SWAYAM MOOC Courses in leiu of various regular core (Compulsary and Department Electives) courses. A student can opt maximum of 2 MOOC courses.

2. Student can opt for Honours degree by earning 18 - 20 additional credits through SWAYAM MOOC courses but with prior permission of the department and limit to the courses related to the Discipline.

3. A student can have Honours degree WITH SPECIALIZATION in the particular of his/her branch by earning 18-20 additional credits in particular specialization through MOOC or Departmental Elective bucket with Permission of the Department

4. Courses Highlighted in green need to be fixed according to the group (ME+CE in one group and CSE+ECE other group. Value added, RM and Mandatory courses also need to be fixed in numbers but department can put in any semester as per requirement (In order to balance the courses and credits in a semester. Internship credits need to be fixed as shown above.

Abbrevation Used:

ID	Interdisciplinary	
VAC	Value Addition Course	
DE	Department Electives	
BSC	Basio Science Courses	1
EAS	Engineering Applied Science	19
п	Industrial Internship	000
MC	Mandatory Courses (Non- Credit	
SE	Specialization Electives	

Credit Di	Credit Distribution					
Core	129					
Other (Interdisci plinary + VAC)	48					
Total	177					

Core Cr	edits
Compulso	42
Departme nt Electives	21)
Industrial Internship	27
Specialization Electives	39
Total	129

Other C	redits
Interdisc iplinary	40
VAC	8
Total	48

Inter	rdisciplinary Credits
Basic Science Courses	6
Engineering Applied Science	10
Open Elective	16)
Mandatory Courses - 4 Courses (Non- Credit))	8
Total	40

B-Tech in Computer Science with Specialization in AI/ML

2	Subject Code	Subject Name	Semester	L	Т	P	c	Category A (Core/ ID/ VAC	Category B (Compulsory/ DE/ BSC/ EAS/ OE/ MC/ II/ MOOC)	Internal	External	Theory/ Practical
		Applied Physics	1st	3	0	0	3	ID	BSC	40	60	Tri.
3	Interest the sales are	Design Thinking	1st	3	0	0	3	ID	EAS	40	60	Theory
3		Computer Fundamental	1st	3	0	0	3	Core	Compulsory	40	60	Theory
4		Introduction to AI, Data Science, Ethics and Foundation of Data Analysis	1st	. 2	0	0.	2	Core	SE .	40	. 60	· Theory
. 5		Communication Skills-I	1st	2	. 0	0	2	ID	EAS	40		
6		Object Oriented Programming	1st		A PROPERTY AND	-97565			EAS	40	60	Theory
7				3	0	0	3	Core	Compulsory	40	60	Theory
	100000000000000000000000000000000000000	Value Addition Course-I	1st	2	0	0	2	VAC	VAC	40	60	Theory
8	A PROPERTY AND A	Computer Fundamental Lab	1st	0	0	2	1	Core	Commuter	Marie Williams Library		Incory
							les tres	Cole	Compulsory	. 60	40	Practical
9		Object Oriented Programming Lab	1st	0	0	2	1	Core	Compulsory	60	40	Practical
10		Introduction to AI, Data Science, Ethics and	1st	0	0	2	1	Core	SE	60	40	Practical
11		Communication Skills-I Lab	1st	0	0	2	1	ID	EAS	60	40	Practical
12		Ability Enhancement Mandatery Course I	1st	2	0	0	2	ID	мс	40	60	Theory
		Total	1st	20	0	8	24					Theory
1		Applied Mathematics	2nd	3	0	0	3	ID	BSC			
2		Data Analysis using Python, Numpy, Pandas, Matplotlib, and Seaborn	2nd	2	0	0	2	Core	SE	40	60	Theory
3 -		Basics of Data Structure	2nd	3	0	0	3	0				
4		Web Development	2nd	3	0	0		Core	Compulsory	40	60	Theory
5		Computer Architecture	2nd	3	0	0	3	Core	Compulsory	40	60	Theory
6		Data Analysis using Python, Numpy, Pandas, Matplotlib, and Scaborn Lab	2nd	0	0	2	1	Core	Compulsory SE	60	60 40	Theory Practical
7		Basics of Data Structure Lab	2nd	0	0	2	1	Core	Compulsory	60	40	Practical
8	A STATE OF THE PARTY OF THE PAR	Web Development Lab	2nd	0	0	2	1	Core	Compulsory	60	40	Practical
9		Engineering Graphics and Design Lab	2nd	0	0	2	1	ID	EAS	60	40	Practical
10		vialidately Course II	2nd	2	0	0	2	ID .	мс	40	. 60	Theory
		l otal	2nd	16	0	8	20					Thony
1		Operating System	3rd ·	3	0	. 0	3	Core	Compulsory	40 .	60	T
2	I	Database Management Systems	3rd	3	0	0	3	Core	Compulsory	40	60	Theory
3		Probabilistics Modeling and Reasoning with Python	3rd	2	0	0	2	Core	SE	40	60	Theory

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	R Programming for Data	Brd	2	0	0	2	Core	SE	40	(60)	Theory
4	Science and Data Analysis	3rd	4	0	0	4	ID	OE	40		Practical
5	Oparaces -			0	2		Core	Compulsory	60	40	Practical
6	Opciating System and	3rd	0			1	Core	Compulsory	60	40	Practical
7	Database Management Systems Lab	3rd	0	0	2	•		SE	60	40	Practical
8		3rd	0	0	2	1	Core			40	Practical
9	R Programming for Data	3rd	0	0	2	1	Core	SE	60		Practical
'	Science and Data Analysis Lab		4 10 10 10	•	4w	2	Core	п	60	40	Theory
10	Illuusulai meriisiip	3rd	0	0	0	2	VAC	VAC	40	60	S USE OF STATE OF STA
11	Value Addition Course-II	3rd	2	0				мс	40	60	Theory
12		3rd	2	0	0	2	ID	MC			
	Total	3rd	18	0	8	24			40	60	Theory
	Design and Analysis of	4th	3	0	0	3	Core	Compulsory			Theory
1	Algorithm			6	0	3	Core	Compulsory	40	60	Theory
2	Software Engineering	4th	3	0	0	3	Core	DE	40	60	Theory
3	Department Electives-III	4th	3	0	0	3	Colo				
4	Machine Learning Practical with Python , Scikit-learn, matplotlib, TensorFlow	4th	1	0	0	1	Core	SE	40	60	Theory
	Machine Learning and Pattern	4th	2	0	0	2	Core	SE	40	60	Theory
5	Recognition	Ten	4	0	0	4	(D)	OE	(40)	60	Theory
6	Open Elective-II	4th			2	1	Core	Compulsory	60	40	Practica
7	Design and Analysis of Algorithm Lab	4th	0	0			Core	DE	60	40	Practica
8	Department Electives Lab-III	4th	0	0	2	0	Core				
9	Machine Learning Practical with Python , Scikit-learn, matplotlib, TensorFlow Lab		0	0	2	1	Core	SE	60	40	Practica
	Machine Learning and Pattern	1		0	2	1	Core	SE	60	40	Practica
10	Recognition Lab		0	0	0	3	ID	EAS	40	60	Theory
11	Research Methodology	4th	19	0	8	23					

2		eory of Computation ta Communication &	5th	3	0	0	3	Core	Compulsory	40	60	Theor
	Net	tworking	5th	3	0	0	3	Core	Compulsory	40		
3	Pyti	ep Learning Practical with hon, TensorFlow and Ke	h ras 5th	1	0	0	1	Core	SE	40	60	Theor
4	Dep	partment Electives-VI	5th	(3)	0	0	(3)	45,200,000			00	Theor
5	Оре	n Elective-III	5th	4	0	0	4	Core	DE	(40)	(60)	Theory
6	Neu	ral Network and deep	5th		THE RESERVE	1/2 1 2 1 3 1 3		D	OE	40	60	Theory
		ning (Vision and NLP)	Jin .	2	0	0	2	Core	SE	40	60	Theory
7	. lean	ral Network and deep ning (Vision and NLP) L		0	0	2	1	Core	SE	60	40	Practica
8	Pyth	p Learning Practical with on, TensorFlow and Ker	as	0	0	2	1	Core	SE			·
9	Data	Communication &	5th		100000		1 2 2 2		3E	60	40	Practica
		vorking Lab		0	0	2	1	Core	Compulsory	60	40	Practica
10		rtment Electives Lab-VI ty Enhancement	5th	0	0	2	0	Core	DE	60	40	Practical
11	Mano	datery Course IV	5th	2	0	0	2	ID	MC	40		
12		strial Training-I	5th	0	0	4w	2	Core		and the same of	60	Theory
1	Tota		5th	18	0	8	24	Core	11	60	40	Practical
VENTON.	Comp	piler Design	6th	3	0	0	3	Core				Tructical
2		Science-Tools and niques	6th	2	0	0	2	Core	Compulsory	40	60	Theory
3	Natur	al Language Processing		2		the proper		Core	SE	40	60	Theory
4	Depar	tment Electives-VII	6th	3	0	0	2	Core	SE	40	60	AN CONTRACTOR OF THE PARTY OF T
(5)	Depar	tment Electives-VIII	6th	1000	0	0	(3)	Core	DE	(40)	60	Theory
6	Open	Elective-IV	6th	3	0	0	3	Core	DE	40	4000000	Theory
7	Comp	iler Design Lab	6th	4	0	0	4	ID	OE	40	60	Theory
8	Data S	Science-Tools and	PROPERTY OF	0	0	2	1	Соге	Compulsory	60	60	Theory
	Techni	iques Lab I Language Processing	6th	0	0	2	1	Core	SE	60	40	Practical
9	Lab			0	0	2	. 1	Core	SE	60		Practical
10	Value	Addition Course-III	6th	2	0	0	2	VAC			40	Practical
	Total		6th	19	0	6	22	VAC	VAC	40	60	Theory
1		ment Electives-IX	7th	3	0	(0)	3	Core	DE			
2	Data V	isualization	7th	2	0	0	2	Newsonstate	The second secon	(40)	60	Theory
3	DevOp	s for Web Development	7th	2	0	0	2	Core	SE	40	60	Theory
4	Departi	nent Electives Lab-IX	7th	0	0	2	0		SE	40	60	Theory
5	Departin	ment Electives-X	7tb	(3)	0	0		Core	DE	60	40	Practical
6	Data Vi	sualization Lab		0	0	2	3	Core	DE	40	60	- American Control
7	. DevOps	for Web		a felt minutes	100000000000000000000000000000000000000	SUITE ON	1	Core	SE	60	40	Theory Practical
8		oment Lab		0	0	·2	1	Core	SE ·	60 -		
9			7th	0	0	4	2	Core			40	· Practical
0 .	Industri	ial Training-II	7th	0	0	6w	3	Core	Compulsory	60	40	Practical
	Value A	Addition Course-IV	7th	2	0.	0	2	VAC	II VAC	60	40	Practical
	Total		7th	12	0	10	20		VAC	40.	60 .	Theory

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					ALESS OF THE PARTY				2	**	100	100	Practical
-		SECURIOR DE LA COMPANION DE LA	Industrial Internship with	8th		2	20W	20	Core	11	100	100	Tractical
40	The state of the s		moustrial internation with			Section 1997		20					
123			Total	8th				20					
23	AND THE PARTY OF T				Act of the last of the	Martin Marine	Della Control	177	A THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED I				The second second
s		Control of the second of the second	Overall Total	1st to 8th	No. of Street, or other Parks		A PARTY CANAL	1//				The second secon	

Note:

- 1. Mooc Course: Student will be offered various available SWAYAM MOOC Courses in leiu of various regular core (Compulsary and Department Electives) courses. A student can opt maximum of 2 MOOC courses in a semester for credit transfer with prior permissin and out of the list published by the department prior to start of the semester.
- 2. Student can opt for Honours degree by earning 18 20 additional credits through SWAYAM MOOC courses but with prior permission of the department and limit to the courses related to the Discipline.
- 3. A student can have Honours degree WITH SPECIALIZATION in the particular of his/her branch by earning 18-20 additional credits in particular specialization through MOOC or Departmental Elective bucket with Permission of the Department
- 4. Courses Highlighted in green need to be fixed according to the group (ME+CE in one group and CSE+ECE other group. Value added, RM and Mandatory courses also need to be fixed in numbers but department can put in any semester as per requirement (In order to balance the courses and credits in a semester. Internship credits need to be fixed as shown above.

	Abbrevation Used:
ID	Interdisciplinary
VAC	Value Addition Course
DE	Department Electives
BSC	Basic Science Courses
EAS	Engineering Applied Science
п	Industrial Internship
MC	Mandatory Courses (Non-Credit
SE	Specialization Electives

Credit Distribution						
Core	129					
Other (Interdisci plinary +	48					
Total	177					



Core Cr	edits
Compulso ry	47
Departme nt Electives	21)
Industrial Internship	27
Specializa tion Electives	34
Total	129

Other Credits							
Interdisc iplinary	40						
VAC	8						
(Total)	48						

Interdisciplinary Credits								
Basic Science Courses		6						
Engineering Applied Science		10						
Open Elective		(16) -						
Mandatory Courses - 4 Courses (Non- Credit))		8						
Total	Constitution (Constitution)	40						

SAR GER	Total	5th	19	0	8	25	10000		00	40	Practical
12	Industrial Training-I	5th	0	0	4w	2	Core	п	60	40	
11	Ability Enhancement Mandatery Course 1V	5th	2	0	0	2	ID	мс	40	60	Theory
10	Department Electives Lab-V	/1 5th	(0)	0	2	1	Core	DE	(60)	40	Practical
	Data Communication & Networking Lab	5th	0	0	2	1	Core	Compulsory	60	40	Practical
-	Base lab		0	0	2	1	Core	SE	60	40	Practical
8	No SQL Data		.0	0	2	. 1	Core	- SE	60.	40	. Practical
7	Base Virtualization Lab	Jul					Core	SE	40	60	Theory
6 T 2 T 2 T 2 T 2 T 2 T 2 T 2 T 2 T 2 T	No SQL Data	5th	2	0	0	2				waxtar -	Theory
3 =	Open Elective-III	5th		0	0	4	ID.	OE	40	60	Theory
4 = .	Department Electives-VI	5th	3	0	0	3	Core	DE	40	60	art.
Re	Virtualization	5th	2	0	Ó	2	Core	SE	40	60	Theory
2	Networking Networking	5th	3	0	0	3	Core	Compulsory	40	60	Theor
	Theory of Computation Data Communication &	5th	3	0	0	3	Core	Compulsory	40	60	Theor
	Total	4th	20	- 0	8	24	,				THEOL
1	Research Methodology	4th	3	0	0	3	ID	EAS	40	60	Theor
0	Cloud Computing Lab	4th	0	0	2	1	Core	SE	60	40	Practic Practic
	Java Lab		0	0	2	1	Core	SE	60		Practic
	Department Electives Lab-	III 4th	0	0	2	0	Cores	DE	60	40	
	Design and Analysis of Algorithm Lab	4th	0	0	2	1	Core	Compulsory	60	40	Practi
	Open Elective-II	4th	4	0	(0)	4	(D)	OE	40	60	
	Cloud Computing	4th	2	0	0	2	Core	SE	40	60	Theor
	Java	4th	2	0	0	2	Core	SE	40	60	Theor
3	Department Electives-II		(3)	0	0	3	Core	Compulsory DE	40	60	Theor
	Algorithm Software Engineering	4th	3	0	0	3	Core	Compulsory	40	60	Theo
	Design and Analysis of	San Salar Sa		0	8	24			1		1000
	Mandatery Course III Total	3rd	18	77 575	S SAME	2	ID	MC	40	60	Theo
2	Ability Enhancement	3rd	2	0	0	San Bay			40	60	Theo
11	Value Addition Course		2	0	4w	2	VAC VAC	II VAC	60	40	Practi
9	JS Lab Industrial Internship	3rd 3rd	0	0	2	1	Core	SE	60	40	Practi
	Kubernetes) Lab Rest API & Node	3rd	0	0	2	1	Core	SE	60	40	Practi
8	Systems Lab Microservices (Dockers and						Core	Compulsory	. 60	40	Practi
7	Database Management	3rd	0	0	2			Compulsory	60	40	Practi
6	Operating System Lab	Market Bully Street	0	0	. 2	1	Core	C. C	(40)	(60)	Theo
5	JS Open Elective-I	3rd	(4)	0	0	(4)	ID	OE		60	Theo
4	Rest API & Node	3rd	2	0	0	2	Core	SE	40		
3	Microservices (Dockers and Kubernetes)	3rd	2	. 0	0	2	Core	SE	40	60	Theo
2	Database Managemen Systems	t 3rd	3	0	0	3	Core	Compulsory	40	60	Theo
-	Operating System	3rd	3	0	0	3	Core	Compulsory	40	60	Theo

.

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57	
<	83
100	and the

				- I	0 1	0	3	Core	Compulsory	40	60	Theory
1		Compiler Design	6th	3	0	0	2	Core	SE	40	60	Theory
2	In the second	Big Data Analytics	6th	2	0	0	2	Core	SE	40	60	Theory
3	THE PLANE	Web Services	JUNION.	2			(3)	Core	DE	40	60	Theory
4	THE REAL PROPERTY.	Department Electives-VII	6th	3	0	0	1000	distributor	DE	40	60	Theory
5		Department Electives-VIII	6th	3	0	0	3	Core	Street	40	60	Theory
6		Open Elective-IV	6th	4	0	0	4	ID	OE	60	40	Practical
7		Compiler Design Lab	6th	0	0	2	1	Core	Compulsory	60	40	Practical
8	-	Big Data Analytics Lab	6th	0	0	2	1	Core	SE	60	40	Practical
9		Web Services Lab	6th	0	0	2	1	Core	SE	60	40	Theory
10	Andrew Programme	Value Addition Course-III	6th	2	0	0	2	VAC	VAC	00		
10		Total	6th	19	0	6	22					TATE STATE OF
1		Department Electives-IX	716	3)	0	0	3)	Core	DE	40	60	Theory
2		Project Development	7th	0	0	4	2	Core	SE	60	40	Theory
		Department Electives Lab-IX	7th	0	0	2	0	Core	DE	60	40	Practical
3	(January 1994)	THE RESIDENCE OF THE PARTY OF T		3	0	0	3	Core	DE	40	60	Theory
4		Department Electives-X	7th	3	, 0	U	-	COL	,	DE MANAGEMENT		
5		Cloud Native		2	0	0	2	Core	SE	40	60	Theory
6		Cloud Native Lab		0	0	2	1	Core	SE	60	40	Practica
7		Cloud Security	7th	2	0	0	2	Core	SE	40	60	Theory
8		Cloud security Lab		0	0	2	1	Core	SE	60	40	Practica
9		Industrial Training-II	7th	0	0	6w	3	Core	п	60	40	Practica
10		Value Addition Course-IV	7th	2	0	0	2	VAC	VAC	40	60	Theor
		Total	7th	12	0	10	20					
1		Industrial Internship with Project (Industrial oriented/Research oriented)	8th			20W	20	Core	п	100	100	Practic
	Total Credits	Total	8th				20					
7		Overall Total	1st to 8th				178					

Note:

- 1. Mooc Course: Student will be offered various available SWAYAM MOOC Courses in leiu of various regular core (Compulsary and Department Electives) courses. A student can opt maximum of 2 MOOC courses in a semester for credit transfer with prior permissin and out of the list published by the department prior to start of the semester.
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- 4. Courses Highlighted in green need to be fixed according to the group (ME+CE in one group and CSE+ECE other group. Value added, RM and Mandatory courses also need to be fixed in numbers but department can put in any semester as per requirement (In order to balance the courses and credits in a semester. Internship credits need to be fixed as shown above.

	Abbrevation Used:								
ID .	Interdisciplinary •								
VAC	Value Addition Course								
DE	Department Electives								
BSC	Basic Science Courses								
EAS	Engineering Applied Science								
II	Industrial Internship								
MC	Mandatory Courses (Non- Credit								
SE	Specialization Electives								

Credit D	istribution
Core	130
Other (Interdisci plinary + VAC)	48
Total	178

Core Cr	edits
Compulso ry	43
Departme nt Electives	21
Industrial Internship	27
Specializat ion Electives	39
Total	130

Other C	redita
Interdisc iplinary	40
VAC	8
Total	48

	nterdisciplinary Credits	
Basic Science Courses		6
Engineering Applied Science		10
Open Elective		16
Mandatory Courses - 4 Courses (Non- Credit))		8
Total		40

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E 400	
20.0	

		lo : s	Brd	3	0	0	3	Core	Compulsory	40	60	Theory
1		- 1 1/	3rd	3	0	0	3	Core	Compulsory	40	60	Theory
2		Systems			0	0	2	Core	SE	40	60	Theory
3		C. C	3rd	2			SHIP AND RESIDENCE OF THE PARTY	ID)	. OE	40	60.	Theory .
4		Open Elective-I	3rd	4	0	0	4	Const.	districts	60	40	Practical
5		Operating System Lab	3rd	0	0	2	1	Core	Compulsory			Practical
6		Database Management	3rd	0	0	2	1	Core	Compulsory	60	40	The second
		Systems Lab . Cloud Security Lab	3rd	0	0	2	1	Core	SE	60	40	Practical Practical
8	The same of the sa	Cloud Detailing	3rd	0	0	4w	2	Core	. II	60	40	
9	THE BUILDING	The state of the s	3rd	2	0	0	2	VAC	VAC	40	60	Theory
10		Ability Enhancement Mandatery Course III	3rd	2	0	0	2	ID	мс	40	60	Theory
			3rd	16	0	6	21			TENER CO.		
×		Design and Analysis of	4th	3	0	0	3	Core	Compulsory	40	60	Theory
		Algorithm	4th	3	0	0	3	Core	Compulsory	40	60	Theory
2		Software Engineering Department Electives-III	4th	3	0	0	3	Core	DE	40	60	Theory
3		Big Data Fundamental	4th	2	0	0	2	Core	SE	40	60	Theory
			4th	[3]	(0)	0	3	Core	DE	40	(60)	Theory
-	5	Department Electives-IV Open Elective-II	4th	4	0	0	4	ID	OE	40	60	Theory
	7	Design and Analysis of	4th	0	0	2	1	Core	Compulsory	60	40	Practical
		Algorithm Lab Department Electives Lab-III	4th	(0)	(0)	(2)	(1)	Core	DE	60	40	Practical
123	8			0	0	2	1	Core	SE	60	40	Practical
120	9	Big Data Fundamental Lab	44		0	0	3	ID	EAS	40	60	Theory
	10	Research Methodology	4th	21	0	6	24					
		Total Theory of Computation	5th	3	0	0	3	Core	Compulsory	40	60	Theory
	2	Theory of Computation Data Communication & Networking	5th	3	0	0	3	Core	Compulsory	40	60	Theory
			Fil	-	0	0	2	Core	SE	40	60	Theory
	3	Big Data Security	5th	2	0	0	3	Core	DE	40	60	Theory
	4	Department Electives-VI	5th			A SHEET BUILDING	(4)	(D)	OE	40	60	Theory
de	5	Open Elective-III	5th	4	0	0	S PARTIES NO. 1	STREET, STREET	THE PROPERTY HERE AND ADDRESS OF	. 40	. 60	Theory
	6 .	Identity Access Management	5th	2	. 0	0	2,	Core	· SE	60	40	Practica
	7	Big Data Security Lab	5th	0	0	2	1	Core	SE			Practica
	8	Identity Access Management lab	5th	0	0	2	1	Core	SE	60	40	Practica
	9	Management lab	5th	0	0	2	1	Core	Compulsory	60		es substances
	10	Department Electives Lab-VI	5th	0	0	(2)	(1)	Core	(DE)	60	40	Practica
70	11	Ability Enhancement	5th	2	0	0	2	ID	MC	40	60	Theory
200		Mandatery Course IV	5th	0	0	4w	2	Core	II	60	40	Practica
	12	Industrial Training-I Total	5th	19	0	8	25	10000	Section 1			

Registra SGT Un Mersity
Budhera Guragram

The state of the	Compiler Design Security	6th	3	0	0	3	Core	Compulsory	40	60	Theory
2	Intelligence	6th	2	0	0	2	Core	SE	40	60	Theory
3	Artificial Intelligence	6th	3	0	0	3	Core	Compulsory	40	60	Theory
4	Department Electives-VII	6th	(3)	0	0	3	Core	DE	40	60	Theory
(5)	Department Electives-VIII	6th	3	0	0	(3)	Core	DE	(40)	A STATE OF THE PARTY OF THE PAR	
7	Open Elective-IV	6th	4	0	0	4	ID)	OE	40	60	Theory
	Compiler Design Lab	6th	0	0	2	1	Core	Compulsory	60	40	Practica
8	Security Intelligence Lab	6th	0	0	2	1	Core	SE	60	40	Practica
9	Artificial Intelligence Lab	6th	0	0	4	2	Core	Compulsory			
10	· Value Addition Course-III	6th	. 2	0	0	2	VAC	VAC ·	60 40	40	Practica
	Total	6th	20	0	8	24		VAC.	40	60	Theory
1	Department Electives-IX	7th	(3)	0	0	3	Core	DE	40	60	
2	Project Development	7th	0	0	4	(2)	Core	SE	60	40	Theory
4	Department Electives Lab-IX	7th	(0)	0	(2)	0	Core	DE	60	(40)	Practica Practica
(5)	Department Electives-X	7th	(3)	0	0	3	Core	DE	40	60	Theory
6	Security and Data Privacy Laws and Standard	7th	2	0	0	2	Core	SE	40	60	Theory
7	Security and Data Privacy	7th	0	0	2	1	Core	SE	60	40	Practical
8	Blockchain	7th	2	0	0	2	Core	SE	40	60	Theory
9,	Blockchain Lab	7th	0	- 0	2	ı,	Core	, SE	, 60	40	Practical
10	Industrial Training-II	7th	0	0	6w	3	Core	n	60	40	Practical
11	Value Addition Course-IV	7th	2	0	0	2	VAC	VAC	40	60	
S	Total	7th	12	0	10	20				00	Theory
eg.	Industrial Internship with Project (Industrial	8th		5	20W	20	Core	п	100	100	Descri -
☐ Tota	al Credits Total	8th				20					Practical
vers	Overall Total	1st to 8th				178					Marine Contract



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Abbrevation Used:

ID	Interdisciplinary
VAC	Value Addition Course
DE	Department Electives
BSC	Basic Science Courses
EAS	Engineering Applied Science
II	Industrial Internship
MC	Mandatory Courses (Non-Credit
SE	Specialization Electives

Credit Dis	tribution
Core	127
Other (Interdisci plinary + VAC)	48
Total	175

Core Cre	dits
Compulso ry	50
Departme nt Electives	(24)
Industrial Internship	27
Specializa tion Electives	29
Total	130

Other C	redits
Interdisc iplinary	40
VAC	8
Total	48

Interdiscipl	inary Credits
Basic Science Courses	6
Engineering Applied Science	10
Open Elective	(16)
Mandatory Courses - 4 Courses (Non- Credit))	8
Total	40

B-Tech in Computer Science with Specialization in Gaming & Augmented Reality (Immersive Experience)

S. No.	Subject Code	Subject Name	Semester	L	Т	1	C	Category A (Core/ ID/ VAC	Category B (Compulsory/ DE/ BSC/ EAS/ OE/ MC/ II/ MOOC)	Internal	External	Theory/ Practic
2		Applied Physics	lst	3	0	0	3	ID	BSC	40	60	71
3		Design Thinking	lst	3	0	0	3	ID	EAS	40	60	Theory
4		Computer Fundamental	1st	3	0	0	3	Core	Compulsory	40	60	Theory
5		Communication Skills-1	lst	2	0	0	2	ID	EAS	40	60	Theory
6		Object Oriented Programming	lst	3	0	0	3	Core	Compulsory	40	60	Theory
7		Value Addition Course-I	lst	2	0	0	2	VAC	VAC	40	. 60	Theory
8		Computer Fundamental Lab	lst	0	0	2	1	Core	Compulsory	60	40	Theory
9		Object Oriented Programming Lab	lst	0	0	2	1	Core	Compulsory	60	40	Practical
,		Communication Skills-I Lab	lst	0	0	2	1	ID	EAS	60	40	Practical
10		Ability Enhancement Mandatary Course 1	lst	2	0	0	2	ID	мс	40	60	Practical
		Total	1st	21	0	8	23					
1		Applied Mathematics	2nd	3	0	0	3	ID ·	BSC	AC		
2		Usability Design of Software Applications	2nd	3	2	0	4	Core	SE	40	60	Theory
3		Basics of Data Structure	2nd	3	0	0	3	Core	Compulsory	40	60	Theory
4		Web Development	2nd	3	0	0	3	Core	Compulsory	40	60	Theory
5		Computer Architecture	2nd	3	0	0	3	Core		40	60	· Theory
7		Usability Design of Software Applications Programming Lab	2nd	0	0	2	1	Core	Compulsory	60	40	Practical
8		Basics of Data Structure Lab	2nd	0	0	2	1	Core	Compulsory	60	40	
9		Web Development Lab	2nd	0	0	2	1	Core	Compulsory	60	40	Practical
-		Engineering Graphics and Design Lab	2nd	0	0	2	1	1D	EAS	60		Practical
10		Ability Enhancement Mandatery Course II	2nd	2	0	0	2	ID	MC	40	, 40	Practical
		Total	2nd	17	2	10	22			40	60	Theory
1		Operating System	3rd	3	0	0	3	Core	Compulsory	- 10		
2		Database Management Systems	3rd	3	0	0	3	Core	Compulsory	40	60	Theory
3	MARKET HOL	Department Electives-I	3rd	3	0	0	3	Core	DE	40	60	Theory
5		Intelligent Game Design and its Applications	3rd	3	2	0	4	Core	SE	40	60	Theory
100	ANTIN THE STATE OF	Open Elective-I	3rd	•	0	0		(D)	OE	40		TO THE REAL PROPERTY.
6		Intelligent Game Design and its Applications Lab.		0	0	2	1	Core	SE	60	40	Theory
7		Operating System Lab	3rd	0	0	2	1	Core	Compulsory	- Table 1		Practical
8		Database Management Systems Lab	3rd	0	0	2	1	Core	Compulsory	60	40	Practical
9		Department Electives Lab-I	3rd	0	0	2	0	Core	DE	60	40	Practical
10		Industrial Internship	3rd	0	0	4w	2	Core	Ш	60	40	Practical
1		Value Addition Course-II	3rd	2	0	0	2	VAC	VAC	60	40	Practical
2		Ability Enhancement Mandatery Course III	3rd	2	0	0	2	ID	MC	40	60	Theory
		Total	3rd	18	2	10	27		MC	40	60	Theory
		Design and Analysis of Algorithm	4th	3	0	0	3	Core	Communication			
2		Software Engineering	4th	3	0	0	3	Core	Compulsory	40	60	Theory
0		Department Electives-III	4th	3	0	0	3	Core	Compulsory	40	60	· Theory
		Innovation & Entrepreneurship	4th	3	2	0	4	Core	DE	40	60	Theory
		Medical imaging techniques	4th	3	0	0	3	ID	SE	40	60	Theory
		Opea Elective-II	4th		900	0		10	EAS OE	40	60	Theory
		Innovation & Entrepreneurship Lab	4th	0		2	1	Core	-	40	60	Theory
		Design and Analysis of Algorithm Lab	4th	0		2	1	Core	SE	60	40	Practical
		Department Electives Lab-III	4th	0		2	0	Core	Compulsory	60	40	Practical
		Research Methodology	4th	3	-	0	3	ID ID	DE	60	40	Practical
	Table 1 To 1	Total		20		10	26	ш	EAS	40	60	Theory

	The second second	Overall Total	1st to 8th				182					
	Total Credits	Total	8th				20					
1		Industrial Internship with Project (Industrial oriented/Research oriented)	8th			20W	20	Core	11	100	100	Practica
		Total	7th	11	0	8	18					
8		Value Addition Course-IV	7th	2	0	0	2	VAC	VAC	40	60	Theory
7	A CONTRACTOR	Industrial Training-II	7th	0	0	4w	2	Core	11	60	60	Theor
6		Capstone Project	7th	0	0	4	2	Core	Compulsory	60	40	Practic
5		Department Electives Lab-IX	7th	0	0	2	4	Core	DE	60	40	Practic
4	1 38 39	Virtual Reality and its Applications Lab	7th	0	0	2	1	Core	SE	60	40	Practic
3		Department Blactives-X	7th	3	0	0	3	Core	DE	40	60	Practic
2		Virtual Reality and its Applications	7th	3	2	0	4	Core	SE	40	60	Theory
1		Department Electives-IX	7th	3	0	0	3	Core	DE	40	60	Theory
8		Total	6th	16	2	6	20					
7		Vision intelligence and Machine Dearling Value Addition Course-III	6th	2	0	0	2	VAC	VAC	40	60	Theory
		Vision Intelligence and Machine Learning*	6th	0	0	2	1	Core	SE	60	40	Practice
		Compiler Design Lab	6th	0	0	2	1	Core	Compulsory	, 60	40	Practice
		Open Elective-IV	6th	4	0	0	4	D	OB	40	60	Theory
48		Department Electives-VIII	6th	3	0	0	3	Core	DE	40	60	Theory
		Vision Intelligence and Machine Learning*	6th	3	0	0	3	Core	DE	40	60	Theory
		Compiler Design	6th	3	2	0	4	Core	SE	40	60	Theory
		Total	6th	3	0	0	3	Core	Compulsory	40	60	Theory
1		Industrial Training-I	5th	19	2	8	27					
)		Ability Enhancement Mandatery Course IV	5th	0	0	4w	2	Core	II .	60	40	Practical
		Department Bloctives Lab-VI	5th	2	0	0	2	ID	MC	40	60	Theory
		Data Communication & Networking Lab	5th	0	0	2		Core	DE	60	40	Practical
		Augmented Reality and its Applications lab	5th	0	0	2	1	Core	Compulsory	- 60	40	Practical
100		Medical informatics	5th	3	0	0	3	Core	SE	60	40	Practical
		Open Elective-III	5th	4	0	0	4	ID ID	EAS	40	60	Theory
		Department Electives-VI	5th	3	0	0	3	ID ID	OE	40	60	Theory
Par E. S.		Augmented Reality and its Applications	5th	3	2	0	4	Core	DE	40	60	Theory
		Data Communication & Networking	5th	3	0	0	3	Core	SE	40	60	Theory
		Theory of Computation	5th	3	0	0	3	Core	Compulsory	40	60	Theory

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EAS	Engineering Applied Science
п	Industrial Internship
мс	Mandatory Courses (Non- Credit
SE	Specialization Elective

Credit D	distribution
Core	128
Other (Interdisci plinary + VAC)	54
Total	182

Core Cre	dits
Compulsory	47
Department Electives	25
Industrial Internship	26
SE	30
Total	128

Ott	
iscipli	46
VAC	8
Total	54

Interdisciplinary (Credits
Basic Science Courses	6
Engineering Applied Science	16
Open Elective	16
Mandatory Courses - 4 Courses (Non-Credit))	. 8
Total	46

	S
B-Tech	in Computer Science with Specialization in Gaming & Augmented Reality
	(Immersive Experience)

	ester	A . I
Am	ACTOR	4rd

S. No.	Subject Code	Subject Name	L	T	P	C	Internal	External	Total
S. No.	Subject Code	Operating System	3	0	0	3	40	60	100
2		Database Management Systems	3	0	0	3	40	60	100
3		Department Electives-I	3	0	0	3	40	60	100
4		Intelligent Game Design and its Applications	3	2	0	4	40	. 60	100
5		Open Elective-I	4	0	0	4	40	60	100
6		Intelligent Game Design and its Applications Lab	0	0	2	1	60	40	100
7	DATE OF STREET	Operating System Lab	0	0	2	1	60	40	100
8		Database Management Systems Lab	0	0	2	1	60	. 40	100
9		Department Electives Lab-I	0	0	2	•	60	40	100
10		Industrial Internship	0	0	4w	2	60	40	100
11		Value Addition Course-II	2	0	0	2	40	60	100
12		Ability Enhancement Mandatory Course III	2	0	0	2	40	60	Grade
12		Total	20	2	8	27	580	620	1100

B-Tech in Computer Science with Specialization in Gaming & Augmented Reality (Immersive Experience)

Semester 4th

S. No.	Subject Code	Subject Name	L	T	P	C	Internal	External	Total
· 1		Design and Analysis of Algorithm	3	0	0	3	40	60	100
2		Software Engineering	3	0	0	3	40	60	100
3	Const.	Department Electives-III	3	0	0	3	40	60	100
4		Innovation & Entrepreneurship	3	2	0	4	40	60	100
5		Medical imaging techniques	3	0	0	3	40	60	100
6		Open Elective-II	4	0	0	4	40	60	100
7		Innovation & Entrepreneurship Lab	0	0	2	1	60	40 .	100
8		Design and Analysis of Algorithm Lab	0	0	2	1	60	40	100
9		Department Electives Lab-III	0	0	2	1	60	40	100
10		Research Methodology	3	0	0	3	40	60	100
		Total	22	2	6	26\	460	540	1000

B-Tech in Computer Science with Specialization in Gaming & Augmented Reality (Immersive Experience)

Semester 5th

	0.114.0-4-	Subject Name	L	T	P	c	Internal	External	Total
S. No.	Subject Code	Theory of Computation	3	0	0	3	40	60	100
1		Data Communication & Networking	3	0	0	3	40	60	100
2		Augmented Reality and its Applications	3	2	0	4	40	60	100
3		Department Electives-VI	3	0	0	3	40	. 60	100
4	Marie Mandre	Open Elective-III	4	0	0	4	40	60	100
5		Medical informatics	3	0	0	3	40	60	100
6	1	Augmented Reality and its Applications lab	. 0	0	2	1	60	40	100
7		Data Communication & Networking Lab	0	0	2	1	60	40	100
8		Department Electives Lab-VI	0	0	2	0	60	40	100
9	V - 19 - 20 - 20 - 20 - 20 - 20 - 20 - 20 - 2	Ability Enhancement Mandatory Course IV	2	0	0	2	40	60	Grade
10	•	Industrial Training-I	0	0	4w	2	60	40	100
11		Total		2	6	27	520	580	1000

B-Tech in Computer Science with Specialization in Gaming & Augmented Reality (Immersive Experience) Semester 6th

S. No.	Subject Code	Subject Name	L	T	P	C	Internal	External	Total
1		Compiler Design	3	0	0	3 \	40	60	100
2		Vision Intelligence and Machine Learning*	3	2	0	4	40	60	100
3		Department Electives-VII	3	0	0	3	40	60	100
4		Department Electives-VIII	3	0	0	3	40	60	100
5		Open Elective-IV	4	0	0	4	40	60	100
6		Compiler Design Lab	0	0	2	1	60	40	100
7		Vision Intelligence and Machine Learning*	0	0	2	1	60	40	100
8		Value Addition Course-III	2	0	0	2	40	60 .	100
		Total	18	2	4	21	360	440	800

B-Tech in Computer Science with Specialization in Gaming & Augmented Reality (Immersive Experience)

Semester 7th

S. No.	Subject Code	Subject Name	L	T	P	C	Internal	External	Total
1		Department Electives-IX	3	0	0	3	40	60	100
2		Virtual Reality and its Applications	3	2	0	4	40	60	100
3		Department Electives-X	3	0	0	3	40	. 60	100
4		Virtual Reality and its Applications Lab	0	0	2	1	60	40	100
5		Department Electives Lab-IX	0	0	2	1	60	40	100
6		Capstone Project	0	0	4	2	60	40	100
7		Industrial Training-II	0	0	4w	2	60	40	100
8		Value Addition Course-IV	2	0	0	2	40	60	100
		Total	11	2	8	18	400	400	800

B-Tech in Computer Science with Specialization in Cyber Security & Block Chain

			Se	mest	er 4th	1			
S. No.	Subject Code	Subject Name	L	T	P	C	Internal	External	Tota
1		Design and Analysis of Algorithm	3	0	0	3	40	60	100
2		Software Engineering	3	0	0	3	40	60	100
3		Department Electives-III	3	0	0	3	40	60	100
4		Big Data Fundamental	2	0	0	2	40	60	100
5		Department Electives-IV	3	0	0	3	40	60	100
6		Open Elective-II	4	0	0	4	40	60	100
7		Design and Analysis of Algorithm Lab	0	0	2	1	60	40	100
8	100	Department Electives Lab-III	0	0	2	0	60	40	100
9		Big Data Fundamental Lab	0	0	2	1	60	40	100
10		Research Methodology	3	0	0	3	40	60	100
St. Algorit		Total	21	0	6	24	460	540	1000

B-Tech in Computer Scien	ce with Specialization	in Cyber Security & Block
	Chain	

				Name and Add .				A CONTRACTOR OF THE PARTY OF TH	
	11,239		Ser	neste	r 5th				
S. No.	Subject Code	Subject Name	L	T	P	C	Internal	External	Total
1	Junje	Theory of Computation	3	0	0	3	40	60	100
2		Data Communication & Networking	3	0	0	3	40	60	100
0.00		Big Data Security	2	0	0	2	40	. 60	100
3		Department Electives-VI	3	0	0	3	40	60	100
5		Open Elective-III	4	0	0	4	40	60	100
6		Identity Access Management	2	0	0	2	40	60	100
		Big Data Security Lab	. 0	0	2	1	60	40	100
8		Identity Access Management lab	0	0	2	1	60	40	100
9		Data Communication & Networking Lab	Ö	0	2	1	60	40	100
10		Department Electives Lab-VI	0	0	2	1	60	40	100
11		Ability Enhancement Mandatory Course IV	2	0	0	2	40	60	Grade'
		Industrial Training-I	0	0	4w	2	60	40	100
12		Total	19	0	8	25	580	620	1100

B-Te	ch in Cor	nputer Science	with	Spec Cha		ation	in Cyber Se	curity & I	Block
			S	emest	er 6tl	1			
S. No.	Subject Code	Subject Name	L	T	P	С	Internal	External	Tota
1		Compiler Design	3	0	0	3	40	60	100
2		Security Intelligence	2	0	0	2	40	60	
3		Artificial Intelligence	3	0	0	3	40	60	100
4		Department Electives-VII	3	0	0	3	40	2000	100
5		Department Electives-VIII	3	0	0	3	40	60	100
6		Open Elective-IV	4	0	0		40	60	100
7		Compiler Design Lab	0	0	2	-	200000	60	100
8		Security	To Control of the			1	60	40	100
		Intelligence I ah	0	0	2	1	60	40	100
9		Artificial Intelligence Lab	0	0	4	2	60	40	100
10		Value Addition Course-III	2	0	0	2	40	60	100

Total

3-Te	ch in Con	nputer Science v	vith	Speci	ializai in	non 11	i Cyber Se	curity & 1	HOCK
			Se	meste	er 7th				
S. No.	Subject Code	Subject Name	L	T	P	С	Internal	External	Tota
1		Department Electives-IX	3	0	0	3	40	. 60	100
2		Project Development	0	0	4	2	60	40	100
4		Department Electives Lab-IX	0	0	2	0	60	40	100
3	100000000000000000000000000000000000000	Department Electives-X	3	0	0	3	40)	60	10
6		Security and Data Privacy	2	0	0	2	40	60	10
7		Stearny and Data Privacy	0	0	2	1	60	. 40	10
8		Blockchain	2	0	0	2	40	60	10
9		Blockchain Lab	0	0	2	1	60	40	10
10		Industrial Training-II	0	0	6w	3	60	40	10

Value Addition Course-IV

Total

niversity a, Gurugram

B-Tech in Compu	iter Science with Specialization in Cyber Security & Block
	Chain
	Semester 8th

			Se	mest	er 8th				
S. No.	Subject Code	Subject Name	L	Т	P	С	Internal	External	
v 1		Industrial Internship with Project (Industrial oriented/Research oriented)		-	20W	20	100	100	Total
	1000	Total		\$ 6 PS	Separate Separate	20		25 Sept. 10	200
	The state of the s					- North			

				Semester	3rd				
S. No.	Subject Code	Subject Name	L	Т	P	С	Internal	External	Total
1		Operating System	3	0	0	3	40	. 60	100
2		Database Management Systems	3	0	0	3	40	60	100
3	Part of	Microservices (Dockers and	2	0	0	2	40	60	100
4		Rest API & Node	2	0	0	2	40	60	100
5		Open Flective-I	4	0	0	4	40	60)	100
6		Operating System Lab	0	0	2	1	60	40	100
7		Database Management Systems Lab	0	0	2	1	60	40	100
8		Microservices (Dockers and	0	0	2	1	60	40	100
9		Rest API & Node	0	0	2	1	60	40	100
10		Industrial Internship	0	0	4w	2	60	40	100
11	1,310	Value Addition Course-II	2	0	0	2	40	60	100
12		Ability Enhancement Mandatory Course III	2	0	0	2	40	. 60	Grade
		Total	18	0	- 8	24	580	620	1100

				Semeste	r 4th		1		
S. No.	Subject Code	Subject Name	L	T	P	С	Internal	External	Total
1		Design and Analysis of Algorithm	3	0	0	3	40	60	100
2		Software Engineering	3	0	0	3	40	60	100
3		Department Electives-III	(3)	0	0.	3	1 40	60	100
4		Java	2	0	0	2	40	60	100
5		Cloud Computing	2	0	0	2	40	60	100
6		Open Elective-II	4	0	0	4	(40)	60	100
7		Design and Analysis of Algorithm Lab	0	0	2	1	60	40	100
8		Department Electives Lab- III	0	0	2	1	60	40	100
9		Java Lab	0	0	2	1	60	40	100
10		Cloud Computing Lab	0	0	2	1.	60	40	100
11		Research Methodology	3	0	0	3.	40	60	100
		. Total	20	0	8	24	520	580	1100

				Semester	5th				
S. No.	Subject Code	Subject Name	L	Т	P	С	Internal	External	Total
1		Theory of Computation	3	0	0	3	40	60	100
2		Data Communication & Networking	3	0	0	3	.40	60	100
3		Virtualization	2	0	0	2	40	60	100
4		Department Electives-VI	3	0	0	3	40	. 60	100
3		Open Elective-III	4	0	0	4	40	60	100
6		No SQL Data Base	2	0	0	2	40	60	100
7		Virtualization Lab	0	0	2	1	60	40	100
8		No SQL Data Base lab	0	0	2	1	60	. 40	100
9		Data Communication & Networking Lab	0	0	2	1	60	40	100
10		Department Electives Lab-	0	0	2	1	60	40	100
11		Ability Enhancement Mandatory Course 1V	2	0	0	2	40	60	Grade*
12		Industrial Training-I	0	0	4w	2	60	40	100
		Total	19	0	8	25	580	620	1100



				Semeste	r 6th				
S. No.	Subject Code	Subject Name	L	Т	P	C.	Internal	External	Tota
1		Compiler Design	3	0	0	3	40	60	100
2		Big Data Analytics	2	0	0	2	40	60	100
3		Web Services	2	0	0	2	40	60	100
4		Department Electives-VII	3	0	0	3)	40	60	100
5		Department Electives-VIII	3	0	0	3	(40)	60	100
6		Open Elective-IV	4	0	0	4	40	60	100
7		Compiler Design Lab	0	0	2	1	, 60	40	100
8		Big Data Analytics Lab	0	0	2	1	60	40	100
9		Web Services Lab	0	0	2	1	60	40	100
10		Value Addition Course-III	2	0	0	2	60	40	100
		Total	19	0	6	22	\ 480	520	1000

				Semester	r 7th				
S. No.	Subject Code	Subject Name	L	Т	P	С	Internal	. External	Total
1		Department Electives-IX	3	0	0	3	40	60.	100
2		Project Development	0	0	į.	2	60	40	100
3		Department Electives Lab-	0	0	2	0	60	40	100
4		Department Electives-X	3	0	0	3	40	60	100
5		Cloud Native	2	0	0	2	40	60	100
6		Cloud Native Lab	0	0	2	1	60	40	100
7		Cloud Security	2	0	0	2	40	60	100
8		Cloud security Lab	0	0	2	1	60	40	100
9		Industrial Training-II	0	0	6w	3	60	40	100
10		Value Addition Course-IV	2	0	0	2 .	40	60	100
		Total	12	0	10	20	500	500	1000

Registrar/ SGT University Budhera, Gurugram

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			Sen	neste	r 3rd				
S. No.	Subject Code	Subject Name	L	T	P	C	Internal	External	Total
1		Operating System	3	0	0	3	40	60	100
2		Database Management Systems	3	0	0	3	40	60	100
3		User Interface Advanced Techniques	2	0	0	2	40	60	100
4		Objective Oriented Programming Language with Objective C	2	0	0	2	40	60	100
5		Open Elective-I	4	0	.0	4	40	60	100
6		Operating System Lab	0	0	2	1	60	40	100
7		Database Management Systems Lab	0	0	2	1	60	40	100
8		User Interface Advanced Techniques Lab	0	0-	2	1	60	40	100
9		Objective Oriented Programming Language with Objective C Lab	0	0	2	1	60	40	100
10		Industrial Internship	0	0	4w	2	60	40	100
11		Value Addition Course-II	2	0	0	.2	40	60	100
12		Ability Enhancement Mandatery Course III	2	0	0	2	40	60	Grade*
		Total	18	0	8	24	580	620	· 1100

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1968			Sen	nester	· 5th				
	In his at Code	Subject Name	L	T	P	C	Internal	External	Total
S. No.	Subject Code	Theory of Computation	3	0	0.	3	40	60	100
2		Data Communication & Networking	3	0	0	3	40	60	100
3		Mobile Application Development/ iPhone Operating System Basic	2	0	0	2	40	60	100
4		Department Electives-VI	3	0	0	3	40	60	100
5		Open Elective-III	4	0	0	4	40	60	100
6		Mobile device Management \ (Security and Forensics)	2	0	0	2	40	60	100
7		Mobile device Management (Security and Forensics) Lab	0	0	2	1	60	40	100
8		Mobile Application Development/ iPhone Operating System Basic lab	0	0	-2	1	60	40	100
9		Data Communication & Networking	0	0	2	1	60	40	100
10		Department Electives Lab-VI	0	0	2	•	60	40	100
11		Ability Enhancement Mandatery Course IV	2	0	0	2	40	60	Grade
12		Industrial Training-I	0	0	4w	2	60	40	100 1100
		Total	. 19	0	8	25	580	620	1100

			Sei	meste	r 6th				
S. No.	Subject Code	Subject Name	L	T	P	C	Internal	External	Total
1		Compiler Design	3	0	0	3	\ 40	60	100
2		Cyber Forensics and Investigations (New)	2	0	0	2	40	60	100
3		iCloud Security +iOS Development	2	0	0	2	40	60	100
4		Department Electives-VII	3	0	0	3	40	60	100
5		Department Electives-VIII	3	0	0	3	40	60	100
6		Open Elective-IV	4	0	0	4	\ 40	60	100
7		Compiler Design Lab	0	0	2	1	60	40	100
8		Cyber Forensics and Investigations (New) Lab	0	0	2	1	60	40	100
9		iCloud Security +iOS Development Lab	0	0	2	1	60	40	100
10		Value Addition Course-III	2	0	0	2	40	60	100
		Total	19	0	6	22	460	540	1000

			Sen	neste	r 7th				
S. No.	Subject Code	Subject Name	L	T	P	C	Internal	External	Total
1		Department Electives-IX	3	0	0	3	40.	60	100
2		Embedded system and its biomedical applications	3	0	0	3	40	60	100
3		iPhone Operating System Practical Implementation Techniques	2	0	0	2	40	60	100
4		Department Electives Lab-IX	0	0	2	1	60	40)	100
3		Department Electives-X	3	0	0	3	40 .	60	100
6		iPhone Operating System Practical Implementation Techniques Dab	0	0	2	1	60	40	100
7		Capstone Project	0	0	4	2	60	40	100
8		Industrial Training-II	0	0	6w	3	60 .	40	100
9		Value Addition Course-IV	. 2	0	0	2	40	60	100
		Total	13	0	8	20	440	460	900

			S	emest	ter 3r	ď			
S. No.	Subject Code	Subject Name	L	T	P	С	Internal	External	Total
1		Operating System	3	0	0	3	40	60	100
2		Database Management Systems	3	0	0	3	\ 40	60	100
3		Probabilistics Modeling and Reasoning with Python	2	0	0	2	40	60	100
4		R Programming for Data Science and Data Analysis	2	0	0	2	40	60	100
5		Open Elective-I	4	0	0	4	40	60	100
6		Operating System Lab	0	0	2	1	60	40	100
7		Database Management Systems Lab	0	. 0	2	1	60	40	100
8		Probabilistics Modeling and Reasoning with Python Lab	0	0	2	- 1	60	40	100
9		R Programming for Data Science and Data Analysis Lab	0	0	2	1	60	40	100
10	A TANKS THE PERMIT	Industrial Internship	0	0	4w	2	60	40	100
11		Value Addition Course-II	2	0	0	2	40	60	100
12		Ability Enhancement Mandatery Course III	2	0	0	2	40	60	Grade*
		Total	18	0	8	24	580	620	1100

	Semester 4th											
S. No.	Subject Code	Subject Name	L	T	P	C	Internal	External	Total			
1		Design and Analysis of Algorithm	3	0	0	3	40	60	100			
2		Software Engineering	3	0	0	3	40	60	100			
3		Department Electives-III	3	0	0	3	40	60	100			
4		Machine Learning Practical with Python, Scikit-learn, matplotlib, TensorFlow	1	0	0	1	40	60	100			
5		Machine Learning and Pattern Recognition	2	0	0	2	40	60	100			
6		Open Elective-II	4	0	0	4	40	60	100			
7		Design and Analysis of Algorithm Lab	0	0	2	. 1	60	40	100			
8		Department Electives Lab-III	0	0	2	0	60	40	100			
9		Machine Learning Practical with Python, Scikit-learn, matplotlib, TensorFlow Lab	0	0	2	1	60	40	100			
10		Machine Learning and Pattern Recognition Lab	0	0	2	1	60	40	100			
11		Research Methodology	3	0	0	3	40	60	100			
		Total	19	0	8	23	520	580	1100			

			S	emes	ter 5t	h			
S. No.	Subject Code	Subject Name	L	T	P	C	Internal	External	Total
1		Theory of Computation	3	0	0	3	40	60	100
2		Data Communication & Networking	3	0	0	3	40	60	100
3		Deep Learning Practical with Python, TensorFlow and Keras	1	0	0	1	40	60	100
4		Department Electives-VI	(3)	0	0	3	40	(60)	100
5		Open Elective-III	4	0	0	4	40	60	100
6		Neural Network and deep learning (Vision and NLP)	2	0	0	2	40	60	100
7		Neural Network and deep learning (Vision and NLP)	0	. 0	2	1	60	40	100
8		Deep Learning Practical with Python, TensorFlow and Keras lab	0	0	2	1	60	40	100
9		Data Communication & Networking Lab	0	0	2	1	60	40	100
10		Department Electives Lab-VI	0	0	2	0	60	40	100
11		Ability Enhancement Mandatory Course IV	2	0	0	2	40	60	Grade*
12		Industrial Training-I	0	0	4w	2	60	40	100
and the		Total	18	0	8	24	580	620	1100

			S	emes	ter 6t	h			
S. No.	Subject Code	Subject Name	L	T	P	C	Internal	External	Total
1		Compiler Design	3	0	0	3	40	60	100
2		Data Science-Tools and	2	0	0	2	40	60	100
3		Natural Language Processing	2	0	0	2	40	60	100
4		Department Electives-VII	3	(0)	0	3	40	60	100
(5)		Department Electives-VIII	3	0	0.	3	40	- 60	100
6		Open Elective-IV	4	0	0	4	40	60	100
7		Compiler Design Lab	0	0	2	1	60	40	100
8		Data Science-Tools and Techniques Lab	0	0	2	1	60	40	100
9	The Child	Natural Language Processing Lab	0	0	2	1	60	40	100
10		Value Addition Course-III	2	0	0	2	40	. 60	100
	A Company of	Total	19	0	6	22	460	540	1000

			S	emest	ter 7t	h			To de la
S. No.	Subject Code	Subject Name	L	T	P	C	Internal	External	Total
1		Department Electives-IX	3	0	0	3	40	60	100
2		Data Visualization	2	0	0	2	40	60	100
3		DevOps for Web Development	2	0	0	2	40	60	100
4		Department Electives Lab-IX	0	0	2	0	60	40	100
5		Department Electives-X	3	0	0	3	40	60	100
6		Data Visualization Lab	0	0	2	1	60	40	100
7		DevOps for Web Development Lab	0	0	2.	1	60	40	100
8	A CONTRACTOR	Capstone Project	0	0	4	2	60	40	100
9		Industrial Training-II	0	0	6w	3	60	40	100
10		Value Addition Course-IV	2	0	0	2	40	60	100
		Total	12	0	10	20	500	500	1000

B-Tech Computer Science & Engineering

Semester 3rd

S. No.	Subject Code	Subject Name	L	T	P	C	Internal	External	Total
1		Operating System	3	0	0	3	40	60	100
2		Database Management Systems	3	0	0	3	40	60	100
3		Department Electives-I	3	0	0	3	40	60	100
4		Department Electives-II	3	0	0	3	40	60	100
5		Open Elective-I	4	0	0	4	40	60	100
6		Operating System Lab	0	0	2	1	60	40	100
7		Database Management Systems Lab	0	0	2	1	60	40 .	100
8		Department Electives Lab-I	0	(0)	2	0	60	40	100
9		Industrial Internship	0	0	4w	2	60	40	100
10		Value Addition Course-II	2	0	0	2	60	40	100
11		Ability Enhancement Mandatery Course III	2	0	0	2	40	60	Grade*
		Total	20	0	6	25	540	560 ·	1000

B-Tech Computer Science & Engineering

Semester 4th

S. No.	Subject Code	Subject Name	L	T	P	C	Internal	External	Total
1		Design and Analysis of Algorithm	3	0	0	3	40	60	100
2		Software Engineering	3	0	0	3	40	60	100
3		Department Electives-III	3	0	0	3	40	60	100
4		Department Electives-IV	3	0	0	3	40	60	100
5		Medical imaging techniques	3	0	0	3	40	60	100
6		Open Elective-II	4	0	0	4	40	60	100
7		Design and Analysis of Algorithm Lab	0	0	2	-1	60	40	100
8		Department Electives Lab-	0	0	2	1	60	40	100
9		Research Methodology	3	0	0	3	60	40	100
		Total	22	0	4	24	420	480	900

Note: -

1.6 weeks mandatory Industrial Training-I of 3 credits after completetion of 2nd year.

2. One MOOC Course of atleat 8 weeks (4 credits) must be completed during Second Year. The list of MOOC courses will be provided by the Departement to the students before commencement of the semester,

3. Student can opt for any of the Open Elective subject outside from the Parent Institute leading to Holistic development of student.

It may include Yoga, Dance, Fashion, Agriculture, Medicine, etc.

4. Hours for open elective may vary as per course but not credits.

5. The Department has liberty to vary Credits of Core CoursesLab but not for Department Electives Lab. The Department Elective Labs are significant. So, there hours not to be reduced.

6.Department Electives must be selected such that they should not have any year-wise dependency.

*2nd Year Core Courses along with 4 Department Elective Courses should make a capsule program with some specialization. ** Students entring directly in 2nd and 3rd year with Certificiate Course and Advanced Certification Course will be given Undergradute Diploma considering their credits of previous courses after successfully completion of 3rd year but the student need to submit his original previous certificate.

Exit Point

Advanced CertificationCourse in Computer Science and with minor specialization in_ **Entry Point**

Advanced CertificationCourse in Computer Science and and in lieu of Industrial Training-I of 6 weeks student has to complete MOOC Course of atleast 6 weeks (3 Credits) in 5thsemester.

		B-Tech Computer Science & Engineering											
Semester 5th													
S. No.	Subject Code	Subject Name	L	T	P	С	Internal	External	Total				
1		Theory of Computation	3.	0	0	3	40	60	100				
2		Data Communication & Networking	3	0	0	3	40	60	100				
3		Department Electives-V	3	0	(0)	3	40	60	100				
. 4		Department Electives-VI	3	0	(0)	3	40	60	100				
5		Open Elective-III	4	0	0	4	40	60	100				
6		Medical informatics	3	0	0	3	40	60 .	100				
7		Data Communication & Networking Lab	0	0	2	1	60	40	100				
8		Department Electives Lab-	Ō	0	2	1	60	40	100				
9		Ability Enhancement Mandatery Course IV	2	0	0	2	40	60	Grade*				
10		Industrial Training-I	0	0	4w	2	60	40	100				
	THE RESERVE	Total	21	0	4	25	460	540	900				

B-Tech Computer Science & Engineering

Semester 6th

S. No.	Subject Code	Subject Name	L	T	P	С	Internal	External	Total
1		Compiler Design	3	0	0	1	40	60	100
2		Artificial Intelligence	3	0	0	3	40	60	100
3		Department Electives-VII	3	0	0	3 .	40	60	100
4		Department Electives-VIII	3	0	0	3	40	60	100
5		Open Elective-IV	4	0	0	4	40	60	100
6		Compiler Design Lab	0	0	2	1	60	40	100
7		Artificial Intelligence Lab	0	0	2	1	60	40	100
8		Value Addition Course-III	2	0	0	2	60	40	100
		Total	18	0	4	20	380	420	800

Note:-

1.6weeks mandatory Industrial Training-II of 3 credits after completetion of 1st year.

2.One MOOC Course of atleat 8 weeks (4 credits) must be completed during Third Year. The list of MOOC courses will be provided by the Departement to the students before commencement of the semester.

3. Student can opt for any of the Open Elective subject outside from the Parent Institute leading to Holistic Development of student. It may include Yoga, Dance, Fashion, Agriculture, Medicine, etc.

4. Hours for open elective may vary as per course but not credits.

5. The Department has liberty to vary Credits of Core Courses Lab but not for Department Electives Lab. The Department Elective Labs are significant. So, there hours not to be reduced.

6.Department Electives must be selected such that they should not have any year-wise dependency.

*3rd Year Core Courses along with 4 Department Elective Courses should make a capsule program with some specialization.

Exit Point

Undergraduate Diploma in Computer Science and Engineering with specialization in

Entry Point

Undergraduate Diploma in Computer Science and and in lieu of Industrial Training of 6 weeks student has to complete MOOC Course of atleast6 weeks (3 Credits) in 7thsemester.

B-Tech Computer Science & Engineering											
Semester 7th											
S. No.	Subject Code	Subject Name	L	Т	P	С	Internal	External	Total		
1		Department Electives-IX	3.	0	0	3	40	60	100		
2		Embedded system and its Biomedical applications	3	0	0	3	40	60	100		
3		Department Electives-X	3	0	0	3	40	60	100		
4		Department Electives Lab-	0	0	2	1	60	40	100		
5		Capstone Project	0	0	4	2	60	40 .	100		
6		Industrial Training-II	0	0	6w	3	60	40	100		
7		Value Addition Course-IV	2	0	0	2	40	60	100		
		Total	11	0	6	17	340	360	700		

Semester 3rd

S. No.	Subject Code	Subject Name	L	T	P	C	Internal	External	Total
- 1		Operating System	3	0	0	3	40	60	100
2		Database Management Systems	3	0	0	3	40	60	100
3	S. A. A. A. C. P.	Department Electives-I	3	0	0	3	40	60	100
4	M. Company	Department Electives-II	3	0	0	3	40	60	100
5		Open Elective-I	4	0	0	4	40	(60)	100
6		Operating System Lab	0	0	2	1	60	40	100
7		Database Management Systems Lab	0	0	2	1	60	40	100
8		Department Electives Lab-I	0	0	2	1	60	(40)	100
9	A DESCRIPTION	Industrial Internship	0	0	4w	2	60	40	100
10		Value Addition Course-II	2	0	0	2	60	40	100
11		Ability Enhancement Mandatory Course III	2	0	0	2	40	60	Grade'
		Total	20	0	6	25	540	560	1000

Open Elective will be chosen from Multidisciplinary Generic Elective

Semester 4th

S. No.	Subject Code	Subject Name	L	Т	P	c	Internal	External	Total
1		Design and Analysis of Algorithm	3	0	0	3	40	60	100
2	3 2 2 2 3	Software Engineering	3	0	0	3	40	60	100
3		Department Electives-III	3	0	0	3	40	60	100
4		Department Electives-IV	(3)	0	0	3	40	60	100
5		Medical imaging techniques	3	0	0	3	40	60	100
6		Open Elective-II	4	0	0	(4)	(40)	60	100
7		Design and Analysis of Algorithm Lab	. 0	0	2	1	60	40	100
8	Hotel .	Department Electives Lab-III	0	0	2	(1)	60	40	100
9		Research Methodology	3	0	0	3	60	40	100
		Total	22	0	4	24	420	480	900

Note: -

1.6 weeks mandatory Industrial Training-I of 3 credits after completetion of 2nd year.

2.One MOOC Course of atleat 8 weeks (4 credits) must be completed during Second Year. The list of MOOC courses will be provided by the

Departement to the students before commencement of the semester.

3. Student can opt for any of the Open Elective subject outside from the Parent Institute leading to Holistic development of student. It may include Yoga, Dance, Fashion, Agriculture, Medicine, etc.

4. Hours for open elective may vary as per course but not credits.

5. The Department has liberty to vary Credits of Core CoursesLab but not for Department Electives Lab. The Department Elective Labs are significant. So, there hours not to be reduced.

6.Department Electives must be selected such that they should not have any year-wise dependency.

*2nd Year Core Courses along with 4 Department Elective Courses should make a capsule program with some specialization.

** Students entring directly in 2nd and 3rd year with Certificate Course and Advanced Certification Course will be given Undergradute Diploma considering their credits of previous courses after successfully completion of 3rd year but the student need to submit his original previous certificate.

Exit Point

Advanced CertificationCourse in Computer Science and with minor specialization in_ **Entry Point**

Advanced CertificationCourse in Computer Science and and in lieu of Industrial Training-I of 6 weeks student has to complete MOOC Course of atleast 6 weeks (3 Credits) in 5thsemester.

Budhera, Gurugram

Semester 5th

5. No.	Subject Code	Subject Name	L	T	P	c	Internal	External	Total
ĺ	1	Theory of Computation	3	0	0	3	40	60	100
2		Data Communication & Networking	3	0	0	3	40	60	100
3	N. CONTRACTOR	Department Electives-V	3	0	0	3	40	60	100
4		Department Electives-VI	3	0	0	3	40	60	100
5		Open Elective-III	4	0	0	4	40	60	100
6		Medical informatics	3	0	0	3	40	60	100
7		Data Communication & Networking Lab	0	0	2	1	60	40	100
8		Department Electives Lab-VI	0	0	2	1	60	40	100
9		Ability Enhancement Mandatory Course IV	2	0	0	2	40	60	Grade*
10		Industrial Training-I	0	0	4w	2	60	40	100
		Total	21	0	4	25	460	540	900

Semester 6th

S. No.	Subject Code	Subject Name	L	T	P	С	Internal	External	Total
1		Compiler Design	3	0	0	3	40	60	100
2		Artificial Intelligence	3	0	0	3	40	60	100
3		Department Electives-VII	3	0	0	3	(40)	60	100
4		Department Electives-VIII	3	0	0	(3)	40	60	100
5		Open Elective-IV	4	0	0	4	40 .	60	100
6		Compiler Design Lab	0	0	2	1	60	40	100
7		Artificial Intelligence Lab	.0	0	2	1	60	40	100
8		Value Addition Course-III	2	0	0	2	60	40	100
		Total	18	0	4	20	380	420	800

Note:-

1.6weeks mandatory Industrial Training-II of 3 credits after completetion of 1st year.

2.One MOOC Course of atleat 8 weeks (4 credits) must be completed during Third Year. The list of MOOC courses will be provided by the

Departement to the students before commencement of the semester.

3. Student can opt for any of the Open Elective subject outside from the Parent Institute leading to Holistic Development of student. It may include Yoga, Dance, Fashion, Agriculture, Medicine, etc.

4. Hours for open elective may vary as per course but not credits.

5. The Department has liberty to vary Credits of Core Courses Lab but not for Department Electives Lab. The Department Elective Labs are significant. So, there hours not to be reduced.

6. Department Electives must be selected such that they should not have any year-wise dependency.

*3rd Year Core Courses along with 4 Department Elective Courses should make a capsule program with some specialization.

Exit Point

Undergraduate Diploma in Computer Science and Engineering with specialization in

Entry Point

Undergraduate Diploma in Computer Science and and in lieu of Industrial Training of 6 weeks student has to complete MOOC Course of atleast6 weeks (3 Credits) in 7thsemester.

> SGT University Budhera, Gurugram

Semester 7th

S. No.	Subject Code	Subject Name	L	T	P	c	Internal	External	Total
1		Department Electives-IX	3	0	0	3	40	60	100
2		Embedded system and its Biomedical Applications	3	0	0	3	40	60	100
3	N. Salanda	Department Electives-X	3	0	0	3	40	60	100
4		Department Electives Lab-IX	0	0	2	1	40	60	100
5		Research Phase-1				10	60	40	100
6	A STATE OF THE STA	Industrial Training-II	0	0	6w	3	60	40	100
7		Value Addition Course-IV	2	0	0	2	40	60	100
		Total	11	0	2	25	320	380	700

	В-Т	B-Tech M-Tech Computer Science & Engineering (Integrated)										
			Sen	ester	8th							
S. No.	Subject Code	Subject Name	L	T	P	C	Internal	External	Total			
1		Department Electives-XI	3	0	0	3	40	60	100			
2		Department Electives-XII	3	0	0	3	40	60	100			
3		IPR and Patenting	3	0	0	3	40	60	100			
4		Research Phase-II			- 1	10	60 .	40	100			
		Total		9	0	0 19	180	220	400			

Semester 9th

S. No.	Subject Code	Subject Name	L	Т	P	c	Internal	External	Total
i.		Distributed Computing	3	0	0	3	40	60	100
2.		AI & Soft Computing	3	0	0	3	40	60	100
3.	Constant	Department Electives-XIII	3	0	0	3	. 40	60	100
4.		Department Electives-XIV	3	0	0	3	40	60	100
5.		Department Electives-XV	3	0	0	3	40	60	100
6.		AI & Soft Computing Lab	0	0	4	2	60	40	100
7.		Department Electives Lab-XIII	.0	0	2)	0	60	40	100
8.)		Department Electives Lab-XV	0	0	2	0	60	40	100
9.		Distributed Computing Lab	0	0	2	. 1	60	40	100
10.		Value Added Courses-V	2	0	0	2	40	60	100
		Total	17	0	10	22	480	520	1000

Semester 2nd

S. No.	Subject Code	Subject Name	L	T	P	C	Internal	External	Total
1	100000000000000000000000000000000000000	Applied Mathematics	3	0	0	3	40	60	100
2		Java Programming	2	0	0	2	40	60	100
3		Basics of Data Structure	3	0	0	3	40 .	60	100
4		Web Development	3	0	0	3	40	60	100
5		Computer Architecture	. 3	0	0	3	40	60	100
6		Java Programming Lab	0	0	4	2	60	40	100
7		Basics of Data Structure Lab	0	0	2	1	60	40	100
8		Web Development Lab	0	0	2	1	60	40	100
9		Engineering Graphics and Design Lab	0	0	2	1	60	40	100
10		Ability Enhancement Mandatory Course II	· 2	0	0	2	40	60	Grade*
	A COLUMN	Total	16	0	10	21	480	520	900

Sc	ore
90 n	narks and above
80 n	narks and above but less than 90 marks
70 n	narks and above but less than 80 marks
60 n	narks and above but less than 70 marks
50 n	narks to 60 marks
Belo	w Minimum Pass marks

1.4 weeks mandatory Industrial Internship of 2 credits after completetion of 1st year.

2. One MOOC Course of atleat 8 weeks (4 credits) must be completed during First Year. The list of MOOC courses will be provided by the Departement to the students before commencement of the semester.

Exit Point

Certificate Course in Basics of Computer Science and Engineering.

Entry Point

Three years Diploma or One year Certificate Course in Basics of Computer Science and and in lieu of Industrial Internship of 4 weeks student has to complete MOOC Course of 4 weeks (2 Credits) in 3rd semester.

SGT University Budhera, Gurugram

Semester 3rd

S. No.	Subject Code	Subject Name	L	T	P	c ,	Internal	External	Total
1		Operating System	3	0	0	3	40	60	100
2		Database Management Systems	3	0	0	3	40	60	100
3		Department Electives-I	3	0	0	3	40	60	100
4		Department Electives-II	3	0	(0)	3	40	60	100
5		Open Elective-I	4	0	0	4	40	60	100
6		Operating System Lab	0	0	2	l.	60	40	100
7		Database Management Systems Lab	0	0	2	1	60	40	100
8	F HERE STREET	Department Electives Lab-I	0	0	2	1	60	40	100
9		Industrial Internship	0	0	4w	2	60	40	100
10		Value Addition Course-II	2	0	0	2	60	40	100
11		Ability Enhancement Mandatory Course III	2	0	0	2	40	60	Grade
		Total	20	0	6	25	540	560	1000

Open Elective will be chosen from Multidisciplinary Generic Elective

Semester 4th

S. No.	Subject Code	Subject Name	L	T	P	c	Internal	External	Total
1		Design and Analysis of Algorithm	, 3	0	0	3	40	60	100
2		Software Engineering	3	0	0	3	40	60	100
3		Department Electives-III	3	0	. 0	3	40	60	100
4		Department Electives-IV	3	0	0	3	40	60	100
5		Medical imaging techniques	3	0	0	3	40	60	100
6		Open Elective-II	4	0	0	4	40	60	100
7		Design and Analysis of Algorithm Lab	0	0	2	1	60	40	100
8		Department Electives Lab-III	0	0	2	1	60 .	40	100
9		Research Methodology	3	0	0	3	60	40	100
		Total	. 22	0	4	24	420	480	900

Note: -

1.6weeks mandatory Industrial Training-I of 3 credits after completetion of 2nd year.

2.One MOOC Course of atleat 8 weeks (4 credits) must be completed during Second Year. The list of MOOC courses will be provided by the Departement to the students before commencement of the semester.

3. Student can opt for any of the Open Elective subject outside from the Parent Institute leading to Holistic development of student. It may include Yoga,

Dance, Fashion, Agriculture, Medicine, etc.

4. Hours for open elective may vary as per course but not credits.

5. The Department has liberty to vary Credits of Core Courses Lab but not for Department Electives Lab. The Department Elective Labs are significant. So, there hours not to be reduced.

6.Department Electives must be selected such that they should not have any year-wise dependency.

*2nd Year Core Courses along with 4 Department Elective Courses should make a capsule program with some specialization.

** Students entring directly in 2nd and 3rd year with Certificate Course and Advanced Certification Course will be given Undergradute Diploma considering their credits of previous courses after successfully completion of 3rd year but the student need to submit his original previous certificate.

Advanced CertificationCourse in Computer Science and with minor specialization in

Entry Point

Advanced CertificationCourse in Computer Science and and in lieu of Industrial Training-I of 6 weeks student has to complete MOOC Course of atleast 6 weeks (3 Credits) in 5thsemester.

> Regist , Gurugram

Semester 5th

S. No.	Subject Code	Subject Name	L	Т	P	C	Internal	External	Total
1		Theory of Computation	3	0	0	. 3	40	60	100
2		Data Communication & Networking	3	0	0	3	40	60	100
3		Department Electives-V	3	0	0	3	40	60	100
4		Department Electives-VI	3	0	0	3	40	60	100
5		Open Elective-III	4	0	0	(4)	40	60	100
6		Medical informatics	3	0	0	3	40	60	100
7		Data Communication & Networking Lab	0	0	2	j	60	40	100
8		Department Electives Lab-VI	0	0	2	1	60	40	100
9		Ability Enhancement Mandatory Course IV	2	0	0	2	40	60	Grade*
-10		Industrial Training-I	0	0	4w	2	60	40	100
		Total	21	0	4	25	460	540	900

Semester 6th

S. No.	Subject Code	Subject Name	L	T	P	c	Internal	External	Total
1		Compiler Design	3	0	0	3	40	60	100
2		Artificial Intelligence	3	0	0	3	40	60	100
3		Department Electives-VII	3	0	0	3	40	60	100
4		Department Electives-VIII	3	0	0	3	40	60	100
5		Open Elective-IV	4	0	0	4	40	60	100
6		Compiler Design Lab	0	0	2	1	60	40	100
7	The second second	Artificial Intelligence Lab	0	0	2	1	60	40	100
8		Value Addition Course-III	2	0	0	2	60	40	100
	No. of Concession, Name of Street, or other party of the Concession, Name of Street, or other pa	Total	18	0	4	20	380	420	800

Note:-

1.6 weeks mandatory Industrial Training-II of 3 credits after completetion of 1st year.

2. One MOOC Course of atleat 8 weeks (4 credits) must be completed during Third Year. The list of MOOC courses will be provided by the Departement to the students before commencement of the semester.

3. Student can opt for any of the Open Elective subject outside from the Parent Institute leading to Holistic Development of student. It may include a course of the semester of the semester.

4. Hours for open elective may vary as per course but not credits.

5. The Department has liberty to vary Credits of Core CoursesLab but not for Department Electives Lab. The Department Elective Labs are significant. So, there hours not to be reduced.

6.Department Electives must be selected such that they should not have any year-wise dependency.

*3rd Year Core Courses along with 4 Department Elective Courses should make a capsule program with some specialization.

Exit Point

Undergraduate Diploma in Computer Science and Engineering with specialization in

Entry Point

Undergraduate Diploma in Computer Science and and in lieu of Industrial Training of 6 weeks student has to complete MOOC Course of atleast6 weeks (3 Credits) in 7thsemester.

Semester 7th

S. No.	Subject Code	Subject Name	L	T	P	С	Internal	External	Total
1		Department Electives-IX	(3)	0	0	4	40	60	100
2		Embedded system and its Biomedical Applications	3	0	0	3	40	60	100
3		Department Electives-X	3	0	0	3	40	60	100
4		Department Electives Lab-IX	0	0	2	1	40	60	100
5		Research Phase-1			RIPE SELECTION	10	60	40	100
6		Industrial Training-II	0	0	6w	3	60	40	100
7		Value Addition Course-IV	2	0	0	2	40	60	100
		Total	11	0	2	25	320	380	700

	P	B-Tech Computer Science & Engineering (Research)								
Semester 8th										
S. No.	Subject Code	Subject Name	L '	T	P	c	Internal	External	Total	
1		Department Electives-XI	3	0	0	3	40	60	100	
2		Department Electives-XII	3	0	0	3	40	60	100	
3		IPR and Patenting	3	0	0	3	40	60	100	
4		Research Phase-II				10	60 .	40	100	
		Total	9	0	0	19	180	220	400	