Department of Computer Science and Engineering

Curriculum Structure

(Autonomy)

1st to 8th Semester

Curriculum for BTech in Computer Science and Engineering

Under Autonomy

1st Semester							
Sl No	**Paper Code**	**Theory**	**Contact Hours /Week**				**Credit Points**
			L	**T**	**P**	**Total**	
1	M 101	Mathematics -I	3	1	0	4	4
2	CH 101/ PH 101	Chemistry (Gr. A) / Physics - I(Gr. B)	3	1	0	4	4
3	EE 101/ EC 101	Basic Electrical Engineering (Gr. A) / Basic Electronics Engineering (Gr. B)	3	1	0	4	4
4	HU 101	Communicative English	2	0	0	2	2
5	ME 101	Engineering Mechanics	3	1	0	4	4
Total of Theory						18	18
A. PRACTICAL							
6	HU191	Lang. Lab. and Seminar Presentation	0	0	2	2	1
7	CH 191/ PH191	Chemistry Lab (Gr. A) / Physics -I Lab(Gr. B)	0	0	3	3	2
8	EE 191/ EC 191	Basic Electrical Engineering Lab (Gr. A) /Basic Electronics Engineering Lab(Gr. B)	0	0	3	3	2
9	ME 191/ ME 192	Engg Drawing & Graphics(Gr A)/ Workshop Practice (Gr-B)	0	0	3	3	2
B. SESSIONAL							
10	XC181	Extra Curricular Activity (NSS/ NCC)	0	0	2	2	1
Total of Practical &Sessional						13	08

2nd Semester							
Sl No	**Paper Code**	**Theory**	**Contact Hours /Week**				**Credit Points**
			L	**T**	**P**	**Total**	
1	M 201	Mathematics -II	3	1	0	4	4
2	CH 201/ PH 201	Chemistry (Gr. B) / Physics - I(Gr. A)	3	1	0	4	4
3	EE 201/ EC 201	Basic Electrical Engineering (Gr. B) / Basic Electronics Engineering (Gr. A)	3	1	0	4	4
4	CS 201	Computer Fundamentals & Principle of Computer Programming	3	1	0	4	4
5	ME 201	Engineering Thermodynamics & Fluid Mechanics	3	1	0	4	4
Total of Theory						20	20
B. PRACTICAL							
6	CS291	Computer Fundamentals & Principle of Computer Programming Lab	0	0	3	3	2
7	CH 291/ PH291	Chemistry Lab (Gr. B) / Physics -I Lab(Gr. A)	0	0	3	3	2
8	EE 291/ EC 291	Basic Electrical Engineering Lab (Gr. B) /Basic Electronics Engineering Lab(Gr. A)	0	0	3	3	2
9	ME 291/ ME 292	Engg Drawing & Graphics(Gr B)/ Workshop Practice (Gr-A)	0	0	3	3	2
Total of Practical						12	08
C.SESSIONAL							
10	MC 281	Soft Skill Development	0	0	2	2	0

			3rd Semester					
				Contact hours				Cr. Points
SL No	**Type**	**Code**	**A. THEORY**	L	T	P	Total	
1	BS	M(CSE)301	Mathematics-III	3	1	0	4	4
2	BS	PH301	Physics-II	3	0	0	3	3
3	ES	EE(CSE) 301	Circuit Theory and Network	3	0	0	3	3
4	PC	CS301	Data Structures	3	0	0	3	3
5	PC	CS302	Digital Electronics and Computer Organization	3	0	0	3	3
			Total Theory				16	16
			B. PRACTICAL					
6	BS	PH391	Physics-II Lab	0	0	3	3	2
7	ES	EE(CSE)391	Circuit Theory and Network Lab	0	0	3	3	2
8	PC	CS391	Data Structures Lab	0	0	3	3	2
9	PC	CS392	Digital Electronics and Computer Organization Lab	0	0	3	3	2
			Total Practical				12	8
C. SESSIONAL								
10	HU	HU381	Technical Report writing and Language Practice Lab	0	0	2	2	1
Total							**30**	**25**

			4th Semester					
				Contact hours				Cr. Points
SL No	**Type**	**Code**	**A. THEORY**	L	T	P	Total	
1	BS	M(CSE)401	Numerical Methodsand Statistics	3	0	0	3	3
2	HS	HU401	Environmental science	2	0	0	2	2
3	PC	CS401	Computer Architecture	3	0	0	3	3
4	PC	CS402	Design and Analysis of Algorithms	3	0	0	3	3
5	PC	CS 403	Formal Language And Automata Theory	3	0	0	3	3
Total Theory							14	14
			B. PRACTICAL					
6	BS	M(CSE)491	Numerical Methods and Statistics Lab	0	0	3	3	2
7	PC	CS491	Computer Architecture Lab	0	0	3	3	2
8	PC	CS492	Algorithms Lab	0	0	3	3	2
9	PC	CS493	Programming with C++ Lab	1	0	2	3	2
Total Practical							12	8
			C. MANDATORY COURSES					
10	MC	MC 481	Technical Communication & Soft Skills	0	0	3	3	2 Unit
Total							**29**	**22**

SL No			5TH SEMESTER					
				Contact hours				Cr. Points
	Type	**Code**	**A. THEORY**	L	T	P	Total	
1	PC	CS501	Computer Graphics	3	0	0	3	3
2	PC	CS502	Operating System	3	0	0	3	3
3	HS	HU 503	Economics for Engineers	2	0	0	2	2
4	PC	CS503	Data Base Management System	3	0	0	3	3
5	FE	CS(IT)504A	Object Oriented Programming using Java					
		CS(IT)504B	Multimedia Technology					
		CS(ECE)504C	Communication Engineering	3	0	0	3	3
6	PE	CS505A	Operations Research					
		CS505B	Computational Geometry					
		CS505C	Digital Signal Processing	3	0	0	3	3
Total Theory							17	17
			B. PRACTICAL					
7	PC	CS591	Computer Graphics Lab	0	0	3	3	2
8	PC	CS592	Operating System Lab	0	0	3	3	2
9	PC	CS 593	Data Base Management System Lab	0	0	3	3	2
10	FE	CS(IT)594A	Object Oriented Programming Lab					
		CS(IT)594B	Multimedia Technology Lab					
		CS(ECE)594C	Communication Engineering Lab	**0**	**0**	3	3	2
Total Practical							12	8
			C. MANDATORY COURSES					
11	MC	MC581	General Aptitude /Foreign Language	0	0	3	3	2 Unit
Total							32	25

			6TH SEMESTER					
				Contact hours				Cr. Points
SL No	**Type**	**Code**	**A. THEORY**	L	T	P	Total	
1	PC	CS601	Computer Network	3	0	0	3	3
2	PC	CS602	Microprocessor and Microcontroller	3	0	0	3	3
3	PC	CS603	Software Engineering	3	0	0	3	3
4	PE	CS604A	Compiler Design					
		CS604B	Robotics					
		CS604C	Simulation and modeling	3	0	0	3	3
5	FE	IT(CSE)605A	Pattern Recognition					
		IT(CSE)605B	Distributed Operating System					
		IT(CSE)605C	Distributed Database					
		IT(CSE)605D	Computer Vision	3	0	0	3	3
6	FE	IT(CSE)606A	Data Warehousing and Data Mining					
		IT(CSE)606B	Digital Image Processing					
		IT(CSE)606C	E-commerce and ERP	3	0	0	3	3
Total Theory							18	18
			B. PRACTICAL					
7	PC	CS691	Computer Network Lab	0	0	3	3	2
8	PC	CS692	Microprocessor and Microcontroller Lab	0	0	3	3	2
9	PC	CS693	Software Engineering Lab	0	0	3	3	2
10		CS 682	Mini Project	0	0	3	3	2
Total Practical							9	6
C. SESSIONAL								
11		CS681	Group Discussion and Seminar	0	0	3	3	2
Total							33	28

			7TH SEMESTER					
				Contact hours				Cr. Points
SL No	**Type**	**Code**	**A. THEORY**	L	T	P	Total	
1	PC	CS701	Artificial Intelligence	3	0	0	3	3
2	HS	HU702	Values & Ethics in Profession	2	0	0	2	2
3	PE	CS702A	Soft Computing					
		CS702B	Natural Language Processing					
		CS702C	Web technology	3	0	0	3	3
4	PE	CS703A	Cloud Computing					
		CS703B	Data Analytics	3	0	0	3	3
		CS703C	Sensor Network and IOT					
5	PE	CS704A	Distributed Algorithms					
		CS704B	Bio-informatics					
		CS704C	Cryptography and Network Security	3	0	0	3	3
Total Theory							14	14
			B. PRACTICAL					
6	PC	CS791	Artificial Intelligence Lab	0	0	3	3	2
7	PE	CS792A	Soft Computing Lab					
		CS792B	Natural Language Processing Lab					
		CS792C	Web Technology Lab	0	0	3	3	2
8		CS795	Project-1	0	0	3	3	2
Total Practical							9	6
			C. SESSIONAL					
9		CS781	Industrial Training	0	0	0	0	2

Total Sessional								
			D. MANDATORY COURSES					
10	MC	MC781	Technical Skill Development	0	0	3	3	2Unit
Total							26	22

			8TH SEMESTER					
				Contact hours				Cr. Points
			8th Semester	L	T	P	Total	
SL No	**Type**	**Code**	**A. THEORY**					
1	HS	HU804	Principle of Management	2	0	0	2	2
2	PE	CS801A	Mobile Computing	3	0	0	3	3
		CS801B	Human computer Interaction					
		CS801C	Cyber Law and Security Policy					
		CS801D	VLSI Design					
3	PE	CS802A	Parallel Computing	3	0	0	3	3
		CS802B	Machine Learning					
		CS802C	Real Time Operating System and Embedded System					
		CS802D	Advanced Computer Architecture					
Total Theory							8	8
			B. PRACTICAL					
4	PC	CS891	Design lab	0	0	3	3	2
5		CS892	Project 2	0	0	12	9	6
6		CS893	Seminar Presentation	0	0	3	3	2
Total Practical							15	10
			C. SESSIONAL					
7		CS881	Grand Viva	0	0	0	0	4
Total							26	22
Grand Total								198

Category	**Total Credit**	**Percentage of Proposed curriculum**	**Percentage according to AICTE**	
			Min	Max
HS	12	6.06	5	10
BS	34	17.17	15	20
ES	36	17.67	15	20
PC	62	31.31	30	40
FE	11	5.55	5	10
PE	23	11.61	10	15
Project+etc	20	10.10	10	15
Grand Total	198			
MC	8 Unit			