UNIVERSITY SCHOOL
OF
INFORMATION AND COMMUNICATION TECHNOLOGY

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

PROGRAMME STRUCTURE

M.TECH. COMPUTER SCIENCE AND ENGINEERING

SPECILIZATION : SOFTWARE ENGINEERING

2020-2022

GAUTAM BUDDHA UNIVERSITY
GAUTAM BUDH NAGAR, GREATER NOIDA, UP, INDIA

SEMESTER I

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	CS521	Advanced Data Base Management System	3	0	0	3	CC1
2	CS523	Advanced Computer Architecture	3	0	0	3	CC2
3	CS525	Intelligent System Design	3	0	0	3	CC3
4	CS527	Research Techniques in ICT	3	1	0	4	CC4
5		Open Elective 1	3	0	0	3	OE1 / AECC
6	CS581	Advanced Data Base Management System Lab	0	0	3	2	CC-L1
7	CS583	Intelligent System Design Lab	0	0	3	2	CC-L2
8	GP	General Proficiency	Non Credit				
		Total Hours and Credits	**15**	**1**	**6**	**20**	

SEMESTER II

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	CS522	Advanced Software Engineering	3	0	0	3	CC5
2	CS524	Open Source Software Systems	3	0	0	3	CC6
3	CS526	Software Reliability	3	0	0	3	CC7
4		Elective 1	3	1	0	4	E1 / DSE
5		Generic Elective 1	3	0	0	3	GE1
6	CS582	Advanced Software Engineering Lab	0	0	3	2	CC-L3 / SEC
7	CS592	Major Project	0	0	12	6	MP1 /E
8	GP	General Proficiency	Non Credit				
		Total Hours and Credits	**15**	**1**	**15**	**24**	

Summer Project in Industry will be done individually after Fourth Year of Integrated Dual Degree B.Tech. + M.Tech. CSE and Second Year of M.Tech. during the summer break and it will be of minimum 4 weeks. It will be evaluated as per University Examination Rules in III semester of M.Tech. and IX semester for Integrated Dual Degree B.Tech. + M.Tech. CSE .

SEMESTER III

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	CS621	AI Enabled Software Engineering	3	0	0	3	CC8 / SEC
2	CS623	Software Engineering for Cloud Computing	3	0	0	3	CC9
3		Elective-2	3	0	0	3	E2 / DSE
4		Elective-3	3	0	0	3	E3 / DSE
5	ES401	Fundamental of Environmental Science	3	0	0	3	OE2 / AECC
6	CS681	Cloud Computing Lab	0	0	3	2	CC-L4
7	CS685	Summer Project	0	0	6	3	SP / E
8	CS691	Dissertation Part - I	0	0	16	8	DP1 / E
9	GP	General Proficiency	Non Credit				
		Total Hours and Credits	**15**	**0**	**25**	**28**	

SEMESTER IV

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	CS692	Dissertation Part - II	0	0	52	26	DP2 / E
2	GP	General Proficiency	Non Credit				
		Total Hours and Credits	**0**	**0**	**52**	**26**	

GRAND TOTAL OF CREDITS   =   98

Major Project will be in a group and It will be evaluated as per University Examination Rules.

Dissertation will be done individually and It will be evaluated as per University Examination Rules.

Summer Project will be done individually and It will be evaluated as per University Examination Rules.

USICT will provide a mentor/supervisor for major projects, summer project, and dissertation.

ELECTIVES FROM DCSE

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	CS528	Software Architecture and Design	3	0	0	3	E1
2	CS530	Parallel Comutation and Applications	3	0	0	3	E1
3	CS532	Web-Based Software Engineering	3	0	0	3	E1
4	CS534	Service Oriented Computing	3	0	0	3	E1
5	CS625	Software Quality Assurance	3	0	0	3	E2
6	CS627	Software Maintenance	3	0	0	3	E2
7	CS629	Software Measurement and Estimation	3	0	0	3	E2
8	CS631	Edge Computing	3	0	0	3	E2
9	CS633	Embedded System Design	3	0	0	3	E3
10	CS635	Applied Machine Learning	3	0	0	3	E3
11	CS637	Blockchain Technology and Software Systems	3	0	0	3	E3
12	CS639	Secure Software Engineering	3	0	0	3	E3

OPEN AND GENERIC ELECTIVES FROM OTHER SCHOOLS

S.No.	Course Code	Course Name	L	T	P	Credits	Types
13	MA402	Modeling and Simulation	3	1	0	4	GE1
14	MA416	Probability and Stochastic Process	3	1	0	4	GE1
15	HU501	Advanced Course in Professional Communication	3	0	0	3	OE1
16	CH503	Patent Laws and IPR Issues	3	0	0	3	OE1
17	ES401	Fundamental of Environmental Science	3	0	0	3	OE2

CS	Computer Science for Course Code	**FC**	Foundation Course
CC	Core Course from USICT for Type of Course	**SEC**	Skill Enhancement Course
CC-L	Core Course Lab from USICT for Type of Course	**E**	Elective
GE	General Elective from related discipline of other Deptt./School	**DP1**	Dissertation Part 1
AECC	Ability Enhancement Compulsary Course	**DP2**	Dissertation Part 2
OE	Open Elective from other discipline of other Deptt./School	**SP**	Summer Project
DSE	Discipline Specific Course	**MP**	Major Project