

**UNIVERSITY SCHOOL
OF
INFORMATION AND COMMUNICATION TECHNOLOGY
Department Of Computer Science & Engineering**

COURSE STRUCTURE

M. Tech.

Computer Science And Engineering

Specialization – Artificial Intelligence and Robotics

2022-2024



**GAUTAM BUDDHA UNIVERSITY
GAUTAM BUDH NAGAR, GREATER NOIDA
UP (INDIA)**

1/5

29th BOS | Mar 25, 2023

Semester 1

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	Design and Architecture for Software Systems	3	0	0	3	CC2 / FC
3	CS525	Advanced Data Structure and Algorithm	3	1	0	4	CC3
4	CS527	Research Techniques in ICT	3	0	0	3	CC4
5	CS529	Java Programming	3	0	0	3	CC5
6	ES415	Energy and Environment	3	0	0	3	OE1 /AECC
7	EN531	Language, Culture and Society	3	0	0	3	OE2 /AECC
8	CS581	Advanced Data Base Management System Lab	0	0	3	2	CC-L1
9	CS583	Java Programming Lab	0	0	3	2	CC-L2 / SEC
10	GP	General Proficiency	Non Credit				
Total Hours and Credits			21	1	6	26	

Semester 2

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	CS522	Python Programming	3	0	0	3	CC6
2	CA522	Soft Computing Techniques	3	0	0	3	CC7
3	CA524	Knowledge Engineering	3	0	0	3	CC8
4	CA526	Machine Translation and Learning	3	0	0	3	CC9
5		Elective-1	3	0	0	3	E1 / DSE
6		Elective-2	3	0	0	3	E2 / DSE
7		Generic Elective	3	1	0	4	GE1
8	CS582	Python Programming lab	0	0	3	2	CC-L3 / SEC
9	CA582	Soft Computing lab	0	0	3	2	CC-L4
10	GP	General Proficiency	Non Credit				
Total Hours and Credits			21	1	6	26	

Semester 3

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	CA621	Expert System Design	3	0	0	3	CC10
2	CA623	Robotics	3	0	0	3	CC11
3		Elective-3	3	0	0	3	E3 / DSE
4		Elective-4	3	0	0	3	E4 / DSE
5	CA681	Robotics Lab	0	0	3	2	CC-L5
6	CA683	Summer Project	0	0	8	4	SP / E
7	CA691	Dissertation Part - I	0	0	16	8	DP1 / E
8	GP	General Proficiency	Non Credit				
Total Hours and Credits			12	0	27	26	

Semester 4

SI No	Course Code	Course Name	L	T	P	Credits	Types
1	CA692	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 = 104

ELECTIVES FROM DCSE

Sl No	Course Code	Course Name	L	T	P	Credits	Types
1	CA528	Natural Language Processing	3	0	0	3	E1
2	CA530	Speech Processing and Systems	3	0	0	3	E1
3	CA532	Pattern Matching	3	0	0	3	E1
4	CA534	Digital Transformation using AI	3	0	0	3	E1
5	CA536	Intelligent Information Retrieval	3	0	0	3	E2
6	CA538	Evolutionary Computation	3	0	0	3	E2
7	CA540	Fuzzy Set Theory	3	0	0	3	E2
8	CA542	Advanced Computer Vision	3	0	0	3	E2
9	CA625	Deep Learning	3	0	0	3	E3
10	CA627	Predictive Analysis	3	0	0	3	E3
11	CA629	R Programming	3	0	0	3	E3
12	CA631	Robot Kinematics	3	0	0	3	E3
13	CA633	Embedded System and Design	3	0	0	3	E4
14	CA635	AI Enabled Cyber Security	3	0	0	3	E4
15	CA637	Human Machine Interaction	3	0	0	3	E4
16	CA639	Robotics Planning Algorithms	3	0	0	3	E4

OPEN AND GENERIC ELECTIVES FROM OTHER SCHOOLS

Sl No	Course Code	Course Name	L	T	P	Credits	Types
17	ES415	Energy and Environment	3	0	0	3	OE1
18	EN531	Language, Culture and Society	3	0	0	3	OE2
19	MA402	Modeling and Simulation	3	1	0	4	GE1
20	MA416	Probability and Stochastic Process	3	1	0	4	GE1



4/5

29th BOS | Mar 25, 2023

M. Tech CSE
Specialization: Artificial Intelligence and Robotics

Effective for Session 2022-23
Annexure 29.1.8

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

