B.Tech
Computer Science and Engineering
(Artificial Intelligence & Machine Learning)

TENTATIVE CURRICULUM

- **I & II Semester (1 Year) Courses/ Subjects are common to 1st Year B.Tech Computer Science & Engineering**

Semester III

SI. No	Course Name	Credits
1.	Mathematics (Statistics)	4
2.	Discrete Computational Structures	4
3.	Data structures Mathematical Structures	4
4.	Switching theory and Logic design	4
5.	Design & Engineering	2
	Professional Ethics	2
6.	Sustainable Engineering	-
7.	Data Structures Laboratory	2
8.	Digital System Design Laboratory	2

Semester IV

SI. No	Course Name	Credits
1.	Mathematics (Probability and Random Process)	4
2.	Introduction to Artificial Intelligence	4
3.	Design & Analysis of Algorithms	4
4.	Database Management Systems	4
5.	Constitution of India	-
6.	Digital Signal Processing	4
7.	Design & Analysis of Algorithms Laboratory	2
8.	Database Management System Laboratory	2

Semester V

SI. No	Course Name	Credits
1.	Applied Statistics	4
2.	Machine Learning - I	4
3.	Internet of Things (IOT)	4
4.	Soft Computing	4
5.	Industrial Economics & Foreign Trade	3
6.	Disaster Management	2
7.	Machine Learning with Python Laboratory	2
8.	IOT Laboratory	2

Semester VI

SI. No	Course Name	Credits
1.	Natural Language Processing	3
2.	Machine Learning - II	4
3.	Computer Vision: Foundations and Applications	3
4.	Mangement for Engineers	3
5.	Elective -1	3
6.	Web Intelligence & Visualization	4
7.	Machine Learning Laboratorry -II	2
8.	Comprehensive Course Work	2

Semester VII

SI. No	Course Name	Credits
1.	Deep Learning	4
2.	Elective -2	3
3.	Elective -3	3
4.	Industrial Safety Engineering	-
5.	Deep Learning Laboratory	2
6.	Seminar	2
7.	Project Phase -I	2

Semester VIII

SI. No	Course Name	Credits
1.	Elective -4	3
2.	Elective -5	3
3.	Elective -6	3
4.	Open Elective	3
5.	Comprehensive Viva Voce	1
6.	Project Phase - II	4

List of Electives

Elective - 1

SI. No	Course Name	Credits
1.	Virtual Reality	3
2.	Expert Systems	3
3.	Data Mining & Ware Housing	3
4.	Fuzzy Logic	3

Elective - 2

SI. No	Course Name	Credits
1.	Speech Processing	3
2.	Decision Support System	3
3.	Cognitive System	3
4.	Computational Geometry	3

Elective - 3

SI. No	Course Name	Credits
1.	Computer Integrated Manufacturing	3
2.	Robot Kinematics and Dynamics	3
3.	Mathematical Elements of Geometrical Modeling	3
4.	Ubiquitous Computing	3

Elective - 4

SI. No	Course Name	Credits
1.	Principles of Cyber Security	3
2.	Computer Forensics	3
3.	Bitcoins and Cryptocurrencies	3
4.	Cryptography	3

Elective - 5

SI. No	Course Name	Credits
1.	Cloud Computing	3
2.	Distributed Systems	3
3.	Game Theory	3
4.	System Modeling and Simulation	3

Elective - 6

SI. No	Course Name	Credits
1.	Bio-Informatics	3
2.	Gene Editing	3
3.	Applications of AI in Healthcare	3
4.	Applied Time-Series Analysis	3