



School of Computing Science and Engineering

Curriculum

of

**B.Tech. CSE Specialization in Artificial Intelligence and
Machine Learning
(2020 Admitted Batch)**

Proposed Structure:	Programme Core (PC)	Programme Elective (PE)	University Core (UC)- NSC+NSE+HUM&MGT -C + HUM&MGT-E (for 2018, 2019 and 2020 batches)	University/ Open Elective (UE)	Total credits
		96	21	57	6

PROGRAM CORE			Credits
CSA2001	Fundamentals in AI & ML	LTP	4
CSA2002	INTRODUCTION TO DRONES	LT	2
CSA3002	Convex Optimization	LT	2
CSA3003	Reinforcement Learning	LT	2
CSA4002	Artificial Neural Networks	LTP	4
CSA4004	DEEP LEARNING	LT	3
CSA4006	Natural Language Processing	LT	3
CSA4008	APPLIED MACHINE LEARNING	LTP	4
CSE1021	Introduction to Problem Solving and Programming	LTP	4
CSE2001	Object Oriented Programming with C++	LTP	4
CSE2002	Data Structures and Algorithms	LTP	4
CSE2003	Computer Architecture and Organization	LT	4
CSE2004	Theory Of Computation and Compiler Design	LT	4
CSE3001	Database Management Systems	LTP	4
CSE3003	Operating System	LTP	4
CSE3004	Design Analysis of Algorithm	LT	4
CSE3006	Computer Networks	LTP	4
DSN2096	Engineering Design	LT	2
DSN2097	Internship	PJ	2
DSN2098	Project Exhibition - I	PJ	1
DSN2099	Project Exhibition - II	PJ	1
DSN3099	Engineering Project in Community Service	PJ	2
DSN4099	Capstone Project	PJ	20
ECE2002	Digital Logic Design	LTP	4
EEE1001	Electrical Circuits and Systems	LTP	4
		Credits	96

PROGRAM ELECTIVE			Credits
CSA3001	Agent Based Intelligent Systems	LT	3
CSA3004	Data Visualization	LT	3
CSA4001	Algorithm for Intelligent Systems	LP	3
CSA4003	Data Mining and Data Warehousing	LT	3
CSA4005	Expert Systems and Fuzzy Logic	LT	3
CSA4007	COGNITIVE ANALYTICS	LT	3
CSA4009	Open Source Operating System	LT	3
CSA4010	Data Analytics Using Scala Programming	LT	3
CSA4011	Information Retrieval and Web Search	LT	3
CSA4012	Introduction to Brain and Neuro Science	LT	3
CSA4013	Open Source Frameworks in Machine Learning	LT	3
CSA4014	Applications of AI in Healthcare	LT	3
CSA4015	Computational Intelligence	LT	3
CSA4017	Optimization Methods in Machine Learning	LT	3
CSA4018	RANDOMIZED ALGORITHMS	LT	3
CSE3002	Programming in Java	LTP	4
CSE3008	Soft Computing	LT	3
CSE3010	Computer Vision	LP	3
CSE3011	Python Programming	LP	3
CSG2003	Human Computer Interaction	LT	3
NAS1001	NASSCOM Future Skills - Associative Data Analyst	LTP	4
NAS2001	Advanced Data Analytics	LTP	4
		Credits	21

University Core			Credits
CHY1005	Introduction to Computational Chemistry	LTP	4
CHY1002	Environmental Science	LT	3
ENG1001	Communication for Technical Professionals	LP	3
ENG2001	Technical Writing & Composition	LT	2
EXC1001	Extra-Curricular Activity	PJ	2
HUM1001	Ethics and Values	LT	2
HUM1008	Swachh Bharat	PJ	2
HUM1012	Logic And Language Structure	LT	3

HUM1013	Indian Culture and Heritage	LT	3
HUM1014	Indian Constitution	LT	3
HUM1108	Swachh Bharat	PJ	2
MAT1001	Calculus and Laplace Transforms	LT	4
MAT2002	Discrete Mathematics and Graph Theory	LT	4
MAT2003	Applied Numerical methods	LT	3
MAT3002	Applied Linear Algebra	LT	3
MAT3003	Probability, Statistics and Reliability	LT	4
MAT3004	Random Process	LT	3
MAT3016	Stochastic Process	LT	3
MAT3017	Statistical Inferences and Series of Function	LT	3
PHY1001	Engineering Physics	LTP	4
PHY2003	Computational Physics	LT	3
PLA1001	Programming for Computing Engineers	LT	4
PLA1002	Programming for Engineers	LT	4
PLA1003	Logic and Problem Solving for Engineers	LT	3
SST1002	Soft Skills for Engineers -I	P	1
SST2002	Soft Skills for Engineers - II	P	1
		Credits	57

University/open Elective		Credits
ONL – Coursera Course (Certification)		2/3/4
Special Elective from other school		3/4
		Credits
		6