B.TECH. 4 YEAR PROGRAMME

COMPUTER SCIENCE & ENGINEERING

SCHEME 2020-21

(1st, 2nd,3rd, 4th, 5th, 6th, 7th & 8th Semester)

Detailed Scheme for B.Tech. CSE

B.Tech. – CSE (First Semester)

CourseNo.	Subject	Scheme of Studies Periods per Week			Credits
		L	T	P	
MTH 101	Engineering Mathematics I	3	1	-	4
PHY 101	Engineering Physics I	3	1		4
CS 101	Fundamentals of Computer Programming	2	1	2	4
EE 101	Fundamentals of Electrical & Electronics	2	1	2	4
HUM 101	Effective Communication and soft skills	2	1	2*	4
IT 101	Engineering Workshop	-		4	2
*Language Lab Total L=12, T=5, P =10		Total Credit			**22**

B.Tech. – CSE (Second Semester)

CourseNo.	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
MTH 102	Engineering Mathematics-II	3	1	-	4
PHY 102	Engineering Physics-II	2	1	2	4
EG 101	Engineering Graphics	2	1	2	4
CS 102	Data Structures and Algorithms	2	1	2	4
HUM 102	Culture & Human Values	2	1	2	4
IT 102	Programming Lab	-	-	4	2
Total L=11, T=5, P =12		Total Credit			**22**

B.Tech. - CSE (Third Semester)

CourseNo.	Subject	Scheme of Studies Periods per Week			Credits
		L	T	P	
MTH 211	Mathematics III	3	1	-	4
CSE-212	Discrete Structure	3	1	-	4
CSE-213	Digital Logic and Design	2	1	2	4
CSE-214	Principles of Programming Languages	2	1	2	4
CSE-215	Design and Analysis of Algorithms	2	1	2	4
CSE-216	Computer Workshop		1	2	2
Total L=12, T=6, P =8		Total Credit			**22**

B.Tech. – CSE (Fourth Semester)

CourseNo.	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
CSE-221	Analog and Digital Communication	3	1	-	4
CSE-222	Computer organization and Architecture	2	1	2	4
CSE-223	Software Engineering	2	1	2	4
CSE-224	Database Management System	2	1	2	4
CSE-225	Formal Language and Automata Theory	3	1	-	4
CSE-226	Entrepreneurship Development		-	4	2
CSE-227	Community Services	-	-	-	S/NS
Total L=12, T=5, P =10		Total Credit			**22**

Community Services*: 15 days (100 Hrs) community services such as Swach bharat Abhiyan etc. to get Satisfactory (S) or Not Satisfactory (NS) Grade.

B.Tech. – CSE (Fifth Semester)

Course No.	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
CSE-311	Computer Networks	2	1	2	4
CSE-312	Digital Image Processing	2	1	2	4
CSE-313	Micro-Processors and Micro-Controllers	2	1	2	4
CSE-314	Compiler Design	2	1	2	4
CSE-315	Operating System	3	1	-	4
Total L=11, T=5, P=8		Total Credit			**20**

B.Tech.– CSE (Sixth Semester)

Course No.	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
CSE-321	Cryptography and Information Security	2	1	2	4
CSE-322	Data Warehouse and Data Mining	2	1	2	4
CSE-323	Distributed Systems	3	1	-	4
CSE-324	Artificial Intelligence	3	-	-	3
L-1	CS Elective -1	3	-	-	3
CSE 325	Minor Project	-	-	4	2
Total L=13, T=3,P=8		Total Credit			**20**

List of Electives Level -1 (Any One Subject for VI Semester)

Data Engineering & Computing Stream		Computer System Architecture Stream		Network Security & Algorithms Stream		Language, Theory & Communication Stream	
CSE501	Advances in Database Management Systems	CSE502	Computer Graphics & Multimedia	CSE503	Computer & Network Security	CSE504	Mobile & Wireless Communications

B.Tech.– CSE (Seventh Semester)

Course No.	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
CSE-411	Soft Computing	2	1	2	4
OT-1	Open Theory from Science/Math/Humanities/Management.	3	-	-	3
L-2	CS Elective 2	3	-	-	3
L-2	CS Elective 3	3	-	-	3
L-2	CS Elective 4	3	-	-	3
CSE 412	Industrial Training	-	-	-	2
CSE 413	Major Project (Phase-1)	-	-	4	2
Total L=14, T=1, P =6		Total Credit			**20**

List of Electives Level -2 (Any Three Subject for VII Semester)

Data Engineering & Computing Stream		Network Security & Algorithms Stream		Computer System Architecture Stream		Language, Theory & Communication Stream	
CSE 601	Mobile Computing	CSE 602	Parallel Algorithms	CSE 603	Natural Language Processing	CSE 604	Software Testing & Quality
CSE 605	Machine Learning	CSE 606	Cyber Crime & Information Warfare	CSE-607	High Performance Computing	CSE 608	Optimization Method
CSE 609	Information Retrieval & Extraction	CSE 610	Digital Forensic and Cyber Law	CSE-611	Real Time Systems	CSE 612	Graph Theory

List of Electives OT-1 (Any One Subject for VII Semester)

Open Theory from Science/Math/Humanities/Management							
CSE 701	Environmental Science	CSE 702	Technical Communication	CSE 703	System Biology	CSE 704	Intellectual Property Right

B.Tech.– CSE (Eighth Semester)

Course No.	Subject	Scheme of Studies Periods per week			Credits
		L	T	P	
OT-2	Open Theory from Science/Math/Humanities/Management	3	-	-	3
L-2	CSE Elective 5	3	-	-	3
L-2	CSE Elective 6	3	-	-	3
CSE 421	Major Project (Phase-2) /Internship*	-	-	4	11
Total L=9, T=0, P =8		Total Credit			**20**

List of Electives Level -2 (Any two Subject for VIII Semester)

Data Engineering & Computing Stream		Network Security & Algorithms Stream		Computer System Architecture Stream		Language, Theory & Communication Stream	
CSE 613	Data Science And Analytics	CSE 616	Randomized Algorithm	CSE 619	Computer Vision	CSE 622	Web Search & Mining
CSE 614	Pattern Recognition	CSE 617	Cloud Computing	CSE-620	Introduction to Robotics	CSE 623	Biometrics
CSE 615	Big Data Analytics	CSE 618	Ethical Hacking	CSE-621	Neural Network	CSE 624	Quantum Computing

List of Electives OT-2 (Any One Subject for VIII Semester)

Open Theory from Science/Math/Humanities/Management							
CSE 705	Principle of Management	CSE 706	Engineering Economics	CSE 707	Organizational Behavior	CSE 708	Project Management