



SCHOOL OF COMPUTING SCIENCE AND ENGINEERING

CURRICULUM & SYLLABUS

of

B.Tech. (CYBER SECURITY & DIGITAL FORENSICS)

(2021-2022) Admitted Students

Course Structure:	Programme Core (PC)	Programme Elective (PE)	University Core (UC)	University Elective (UE)	Total
		55	15	69	21

PROGRAM CORE			55 Credits
Course Code	Course Title	Type	Credit
CSD1001	Principles of Digital Forensics	LT	3
ECE2002	Digital Logic Design	LTP	4
CSE2001	Object Oriented Programming with C++	LTP	4
CSE2003	Computer Architecture and Organization	LT	4
CSE2004	Theory Of Computation and Compiler Design	LT	4
ECE3004	Microprocessors And Microcontrollers	LTP	4
CSDxxxx	Data Structures and Analysis Of Algorithms	LTP	4
CSE3001	Database Management Systems	LTP	4
CSE3003	Operating System	LTP	4
CSE3005	Software Engineering	LTP	4
CSE3006	Computer Networks	LTP	4
CSE4001	Internet and Web Programming	LTP	4
CSD4001	Software Vulnerability Testing	LTP	4
CSD4002	Ethical Hacking	LTP	4

PROGRAM ELECTIVE			Any 15 Credits
Course Code	Course Title	Type	Credit
MAT2009	Applied Cryptography	LT	3
HUM2003	Foundations of Privacy and Security	LT	3
CSD2001	Mobile Device Forensics	LP	3
CSD3003	Cyber Crimes and Laws	LT	3
CSD3004	Cyber Threat Analysis	LP	3
CSD3005	Data Privacy	LP	3
CSD3006	Android Security	LP	3
CSD3007	Block Chains and Crypto Currencies	LT	3
CSD3008	Machine Learning Forensics	LT	3
CSD4003	Network and System Security	LP	3
CSD4005	Network Forensics	LP	3
CSD4006	File System Forensics	LP	3
CSD4007	Cloud Security	LT	3
CSD4008	Cyber Security Framework	LT	3
CSD4009	Enterprise Cybersecurity	LT	3
CSD4010	Embedded Systems and Security	LP	3
CSD4011	IoT Security	LT	3
CSD4012	Web Security	LP	3

CSD4013	Forensic Audio and Video Analysis	LP	3
NAS1001	Nasscom Future Skills - Associative Data Analyst	LP	3
NAS1002	Nasscom Future Skills – Security Analyst I	LP	3
NAS2001	Nasscom Future Skills – Advanced Data Analyst	LP	3
NAS2002	Nasscom Future Skills – Security Analyst II	LP	3
	Design Project/ Simulation Project/ Product Development/ Special Project	PJ	3

UNIVERSITY CORE			69 Credits
Natural Science Core			23 credits
PHY1001	Engineering Physics	LTP	4
CHY1007	Forensic Chemistry & Applications	LTP	4
MAT1001	Calculus and Laplace Transforms	LT	4
MAT3002	Applied Linear Algebra	LT	3
MAT3003	Probability, Statistics and Reliability	LT	4
MAT2002	Discrete Mathematics and Graph Theory	LT	4
Basic Engineering Sciences Core			12 credits
	Engineering Design & Modelling	LTP	4
EEE1001	Electric Circuits and Systems	LTP	4
CSA2001	Fundamentals of AI and ML	LTP	4
Skill Development Courses			14 credits
CSE1021	Introduction to Problem Solving and Programming	LP	4
CSE3002	Programming In Java	LP	3
	Competitive Coding Practices	LP	3
	Professional Communication Skills for Engineers	P	1
	Dynamics of Workplace Communication	P	1
	Lateral Thinking	LT	2
Humanities & Management Core			6 credits
ENG1004	Effective Technical Communication	LT	2
	Advanced Technical Communication	LT	2
CHY1006	Environmental Sustainability	LT	2
Projects & Internships			14 credits
DSN2098	Project Exhibition - I	PJ	1
DSN2099	Project Exhibition – II	PJ	1
DSN3099	Engineering Project in Community Service	PJ	2
DSN2097	Summer Industrial Internship	PJ	1
	Semester Internship	PJ	4
	Capstone Project	PJ	5

University Elective			21 Credits
NATURAL SCIENCE ELECTIVES (Select any 2 Subject)			Any 6 Credits
MAT2003	Applied Numerical Methods	LT	3
MAT3008	Computational Game Theory	LT	3
MAT2004	Operations Research	LT	3
MAT2001	Differential and Difference Equations	LT	3
MAT3004	Random Process	LT	3
-	Modelling and Simulation of Biological System	LP	3
PHY2011	Biophysics	LT	3
MULTIDISCIPLINARY ELECTIVES (Select any 2 Subject)			Any 6 Credits
-	Human-Computer Interaction	LT	3
-	Biometric and Security Systems	LT	3
-	Sensor and IoT	LP	3
-	Unmanned Aerial Vehicles	LT	3
-	Body Area Network	LT	3
-	Digital Fabrication/Mems	LT	3
-	Bio Inspired Designs	LT	3
-	Cyber Physical Systems	LT	3
-	Foundations of Data Science	LP	3
-	Introduction to Linguistics	LT	3
-	MOOC Courses	LT	3
HUMANITIES, SOCIAL SCIENCES AND MANAGEMENT ELECTIVES (Select any 1 Subject)			Any 3 Credits
HUM1002	Emotional Intelligence	LT	3
HUM2001	Behavioural Science	LT	3
MGT1001	Principles of Management and Organizational Behaviour	LT	3
BMT2017	International Business	LT	3
MGT2003	Technology Entrepreneurship	LT	3
BMT1013	Human Resource Management	LT	3
FREE ELECTIVES			Any 6 Credits
-	Elective / Specialization Courses from other Schools	LT	3
-	MOOC Courses	LT	3