



SETHU INSTITUTE OF TECHNOLOGY
An Autonomous Institution | Accredited By NAAC with 'A' Grade
Pulloor, Kariapatti –Taulk. Virudhunagar Dist-626115.



Re-Accredited By NBA
REGULATIONS 2021 [Batch-2023-2027]



CSE(Cyber Security)

OVERALL COURSE STRUCTURE

Code	Category	Total No. of Courses	Credits	Percentage
BS	Basic Sciences	9	25	15.24
ES	Engineering Sciences	7	17.5	10.67
HSS	Humanities and Social Sciences	5	8.5	5.18
PC	Professional Core (Including Lab Courses)	28	64	39.02
PE	Professional Elective	6	18	10.98
OE	Open Elective	4	12	7.32
PW	Project Work, Seminar & Internship	4	14	8.54
MC	Mandatory Courses	11	5	3.05
	TOTAL	74	164	100

COURSE CREDITS – SEMESTERWISE

Branch	I	II	III	IV	V	VI	VII	VIII	TOTAL
CSE(Cyber Security)	21	18	22	22	23	25	19	14	164

Semester I

Course Code	Course Title	L	T	P	C	Type of Course
THEORY						
R21UEN101	English for Technical Communication (Common to ALL Branches except CSBS)	2	0	0	2	HSS
R21UMA102	Matrix and Calculus (Common to ALL Branches except CSBS)	3	1	0	4	BS
R21UPH103	Physics for Information Science (Common to CSE, IT,CSBS, AIDS,CSD,AIML,IoT and Cyb.Sec.,)	3	0	0	3	BS
R21UCS107	Problem Solving and C programming (Common to CSE, ECE, IT, CSBS, AIDS, CSD, AIML, IoT and Cyb.Sec.,)	3	0	0	3	ES
OTHER THEORY COURSES						
R21UEE130	Fundamentals of Electrical and Electronics Engineering (Common to IoT and Cyb.Sec.,)	2	0	0	2	ES
R21UME109	Engineering Graphics (Common to ALL Branches except CSBS, AI&DS,CSD,AIML)	1	3	0	4	ES
PRACTICAL						
R21UCS111	Problem Solving and C programming Laboratory (Common to CSE , ECE ,IT , CSBS,AIDS,CSD,AIML,IoT and Cyb.Sec.,)	0	0	2	1	ES
R21UPH113	Physics Laboratoroy (Common to CSE, IT,CSBS , AIDS,CSD,AIML,IoT and Cyb.Sec.,)	0	0	2	1	BS
MANDATORY						
R21UGM131	Induction Programme (Common to All Branches)	0	3	0	P/F	MC
R21UGT140	Heritage of Tamils (Common to all Branches)	1	0	0	1	MC
	TOTAL	15	7	4	21	
Total No of Credits – 21						

Semester II

Course Code	Course Title	L	T	P	C	Type of Course
THEORY						
R21UEN201	Communication Skills for Professionals (Integrated Course) (Common to All Branches except CSBS)	1	0	1	1.5	HSS
R21UMA211	Differential Equations and Complex Analysis (Common to CSE, IT,IoT and Cyb.Sec.,)	3	1	0	4	BS
R21UCY205	Applied Chemistry for Engineers (Common to CSE,IT, AIDS,CSD,AIML, IoT and Cyb.Sec.,)	3	0	0	3	BS
OTHER THEORY COURSES						
R21UIT206	Programming Fundamentals using Python (Common to CSE, IT,CSD, AIML, IoT and Cyb.Sec.,)	3	0	0	3	ES
R21UCS205	Digital Electronics (Only for CSE, AIML and Cyb. Sec.,)	3	0	0	3	ES
PRACTICAL						
R21UCY213	Applied Chemistry Laboratory (Common to CSE,IT, AIDS,CSD,AIML, IoT and Cyb.Sec.,)	0	0	2	1	BS
OTHER PRACTICALS						
R21UIT207	Programming Fundamentals using Python Laboratory (Common to CSE, IT,CSD, AIML,IoT and Cyb.Sec.,)	0	0	3	1.5	ES
MANDATORY						
R21UGT241	Tamils and Technology (Common to All Branches)	1	0	0	1	MC
R21UAC231	Biology for Engineers (Common to All except BME and BT)	2	0	0	P/F	MC
	TOTAL	16	1	6	18	
Total No of Credits – 18						

Semester III

Course Code	Course Title	L	T	P	C	Type of Course
THEORY						
R21UMA322	Probability, Queueing Theory and Numerical Methods (Common to CSE ,IT,IoT and Cyb.sec)	3	1	0	4	BS
R21UIT302	Data Structures (Common to CSE,IT,AI&DS,CSD CSE (AI&ML), IOT and Cyber Security)	3	0	0	3	PC
R21UCS303	Object Oriented Programming using C++ (Common to CSE,IT,CSBS,CSD and CSE (AI&ML), IOT and Cyber Security))	3	0	0	3	PC
R21USY304	Operating Systems and security (Only for Cyber Security)	3	0	0	3	PC
R21UCS305	Computer Organization (Common to CSE,IT,CSBS,AI&DS and CSE (AI&ML), IOT and Cyber Security)	3	0	0	3	PC
R21USY306	Fundamental of Data Science (Only for Cyber Security)	3	0	0	3	PC
PRACTICAL						
R21UIT307	Data Structures Laboratory (Common to CSE,IT,AI&DS,CSD and CSE (AI&ML), IOT and Cyber Security)	0	0	2	1	PC
R21USY308	Operating Systems and security Laboratory (Only for Cyber Security)	0	0	2	1	PC
R21UCS309	Object Oriented Programming using C++ Laboratory (Common to CSE,IT,CSBS,CSD and CSE(AI&ML), Cyber Security, IOT)	0	0	2	1	PC
MANDATORY						
R21UGM331	Environmental Science (Common to All Branches)	2	0	0	P/F	MC
	TOTAL	20	1	6	22	
Total No of Credits - 22						

Semester IV

Course Code	Course Title	L	T	P	C	Type of Course
THEORY						
R21UMA421	Transforms and Discrete Mathematics Common to CSE,IT and AIML)	3	1	0	4	BS
R21UCS402	Computer Networks (Common to CSE , IT, CSD,CYBER SECURITY)	3	0	0	3	PC
R21UCS403	Algorithm Analysis (Common to CSE, IT, CSD, AI&DS, CSE (AI&ML), IOT and Cyber Secutity)	3	0	0	3	PC
R21UIT404	Java Programming (Common to CSE, IT, CSD and CSE (AI&ML), IOT and Cyber Secutity)	3	0	0	3	PC
R21USY405	Engineering Secure Software Systems	3	0	0	3	PC
R21USY406	Database Management Systems and Security	3	0	0	3	PC
PRACTICAL						
R21UCS407	Computer Networks Laboratory (Common to CSE ,IT,CSD,CYBER SECURITY)	0	0	2	1	PC
R21USY409	Database Management Systems and Security Laboratory	0	0	2	1	PC
R21UIT408	Java Programming Laboratory (Common to CSE, IT, CSD and CSE(AI&ML))	0	0	2	1	PC
MANDATORY						
R21UGM431	Gender Equality (Common to all)	1	0	0	P/F	MC
		19	1	6	22	
Total No of Credits -22						

Semester V

Course Code	Course Title	L	T	P	C	Type of Course
THEORY						
R21USY501	Distributed Computing	3	0	0	3	PC
R21USY502	Cryptography and Cyber Security	3	0	0	3	PC
R21UCS503	Theory of Computation (Common to CSE and CSE (AI&ML), Cyber Security)	3	1	0	4	PC
PE1	Professional Elective–I	3	0	0	3	PE
OE1	Open Elective–I	3	0	0	3	OE
R21UGS531	Reasoning and Aptitude (Common to CSE, ECE, IT, CSBS, AIDS, CSD and AIML and Cyber Security)	1	0	0	1	BS
R21UGM535	Universal Human Values (Common to All Branches)	2	1	0	3	MC
PRACTICAL						
R21USY507	Creative Thinking and Innovation (for All Branches)	0	0	2	1	PW
R21UGS532	Soft Skills Laboratory (Common to CSE, EEE, IT, AGRI, CSBS, AIDS, CSD and AIML)	0	0	2	1	HSS
R21USY508	Cryptography and Cyber Security Laboratory	0	0	2	1	PC
	TOTAL	16	1	6	23	
Total No of Credits –23						

NOTE: Any One of the Six Professional Elective Courses should be replaced by the equivalent NPTEL Course.

Semester VI

Course Code	Course Title	L	T	P	C	Type of Course
THEORY						
R21USY601	Cyber Forensics	3	0	0	3	PC
R21USY602	Firewalls & Intrusion Detection System	3	0	0	3	PC
R21UAM603	Artificial Intelligence and Machine Learning	3	0	0	3	PC
PE-II	Professional Elective–II (NPTEL)	3	0	0	3	PE
PE-III	Professional Elective–III	3	0	0	3	PE
OE-II	Open Elective–II	3	0	0	3	OE
PRACTICAL						
R21USY607	Product Development Project	0	0	8	4	PW
R21UCS608	Artificial Intelligence and Machine Learning Laboratory	0	0	2	1	PC
R21UCS609	Firewalls & Intrusion Detection System Laboratory	0	0	2	1	PC
R21UGS633	Interpersonal Skills Development Lab (Common to CSE, EEE, IT, AGRI, CSBS, AIDS and AIML)	0	0	2	1	HSS
MANDATORY						
R21UGM631	Indian Constitution (Common to all Branches)	1	0	0	P/F	MC
	TOTAL	19	0	14	25	
Total No of Credits - 25						

NOTE: Any One of the Six Professional Elective Courses should be replaced by the equivalent NPTEL Course.

Semester VII

Course Code	Course Title	L	T	P	C	Type of Course
THEORY						
R21UME701	Project Management and Finance (Common to All Branches Except CSBS)	3	0	0	3	HSS
R21USY702	Network Security	3	0	0	3	PC
R21USY703	Embedded Systems and IOT	2	0	0	2	PC
PE-IV	Professional Elective–IV	3	0	0	3	PE
PE-V	Professional Elective –V	3	0	0	3	PE
OE-III	Open Elective–III	3	0	0	3	OE
PRACTICAL						
R21USY708	Network Security Laboratory	0	0	2	1	PC
MANDATORY						
R21UGM731	Sports and Social Development (Common to all Branches)	-	-	-	P/F	MC
R21UGM732	Skill Development (Common to all Branches)	-	-	-	P/F	MC
R21USY735	Internship (Common to all Branches)	0	0	0	1	PW
	TOTAL	17	0	2	19	
Total No of Credits - 19						

NOTE: Any One of the Six Professional Elective Courses should be replaced by the equivalent NPTEL Course.

Semester VIII

Course Code	Course Title	L	T	P	C	Type of Course
THEORY						
PE-VI	Professional Elective–VI	3	0	0	3	PE
OE-IV	Open Elective–IV	3	0	0	3	OE
PRACTICAL						
R21USY801	Project work	0	0	16	8	PW
MANDATORY						
R21UGM831	Professional Ethics and Human values (Common to all branches)	2	0	0	P/F	MC
	TOTAL	8	0	16	14	
Total No of Credits -14						