



SETHU INSTITUTE OF TECHNOLOGY

(An Autonomous Institution | Accredited with 'A' Grade by NAAC)



Pulloor, Kariapatti – 626 115

B.E. Degree Programme

CBCS CURRICULUM

Regulations 2019

Bachelor of Engineering in Computer Science & Engineering

Category	Total No. of Courses	Credits	Percentage
Humanities & Social Sciences	6	12.5	7.14
Basic Sciences	10	28.5	16.29
Engineering Sciences	11	28	16
Professional Core	23	61	34.85
Professional Elective	6	18	10.29
Open Electives	4	12	6.86
Project Work	5	15	8.57
Mandatory Course	5	-	-
TOTAL	70	175	100

COURSE CREDITS – SEMESTER WISE

Branch	I	II	III	IV	V	VI	VII	VIII	TOTAL
CSE	23	20.5	24.5	21.5	23.5	26	22	14	175

Semester I

Course Code		Course Title	L	T	P	C
THEORY						
19UGM131	MC	Induction Programme				
19UEN101	HS	English for Technical Communication	2	0	0	2
19UMA102	BS	Engineering Mathematics-I	3	1	0	4
19UPH103	BS	Engineering Physics	3	0	0	3
19UCY105	BS	Applied Chemistry	3	0	0	3
19UCS108	ES	Problem Solving and PYTHON programming	3	0	0	3
19UME109	ES	Engineering Graphics & Design	3	1	0	4
PRACTICAL						
19UCS110	ES	Problem Solving and PYTHON programming Laboratory	0	0	3	1.5
19UCS112	ES	Engineering Fundamentals Laboratory	0	0	3	1.5
19UGS113	BS	Basic Sciences Laboratory	0	0	2	1
TOTAL			17	2	8	23
Total No. of Credits – 23						

Semester II

Course Code		Course Title	L	T	P	C
THEORY						
19UEN201	HS	Communication Skills for Professionals	1	0	1	1.5
19UMA203	BS	Differential Equations and Complex Analysis	3	1	0	4
19UPH205	BS	Physics for Information Science	3	0	0	3
19UCY204	HS	Environmental Science	3	0	0	3
19UCS205	ES	Introduction to computer science and Engineering	3	0	0	3
19UCS206	ES	Programming Using C	3	0	0	3
PRACTICAL						
19UGS210	BS	Energy and Environmental Science Laboratory	0	0	3	1.5
19UCS211	ES	C Programming Laboratory	0	0	3	1.5
TOTAL			16	1	7	20.5
Total No. of Credits – 20.5						

Semester III

Course Code		Course Title	L	T	P	C
THEORY						
19UMA322	BS	Probability, Statistics and Queueing Systems (Common to CSE &IT)	3	1	0	4
19UCS302	PC	Data Structures	3	0	0	3
19UCS303	ES	Digital Electronics	3	0	0	3
19UCS304	PC	Object Oriented Programming using Java (Common to CSE & CSBS)	3	0	0	3
19UCS305	PC	Operating Systems (Common to CSE & CSBS)	3	0	0	3
19UCS306	ES	Computer Organization (Common to CSE & CSBS)	3	0	0	3
PRACTICAL						
19UCS307	PW	Seminar	0	0	2	1
19UCS308	PC	Data Structures Laboratory	0	0	3	1.5
19UCS309	PC	Java Programming Laboratory (Common to CSE & CSBS)	0	0	3	1.5
19UCS310	PC	Operating Systems Laboratory (Common to CSE & CSBS)	0	0	3	1.5
		TOTAL	18	1	11	24.5
Total No. of Credits – 24.5						

Semester IV

Course Code		Course Title	L	T	P	C
THEORY						
19UMA421	BS	Transforms and Discrete Mathematics (Common to CSE &IT)	3	1	0	4
19UCS402	PC	Computer Communications and Networks (Common to CSE and CSBS)	3	0	0	3
19UCS403	PC	Design and Analysis of Algorithms (Common to CSE and CSBS)	3	1	0	4
19UCS404	PC	Database System Concepts (Common to CSE and CSBS)	3	0	0	3
19UEC425	ES	Microprocessors and Microcontrollers	3	0	0	3
PRACTICAL						
19UEC426	ES	Microprocessors and Microcontrollers Laboratory	0	0	3	1.5
19UCS407	PC	Computer Communications and Networks Laboratory (Common to CSE and CSBS)	0	0	3	1.5
19UCS408	PC	Database System Concepts Laboratory (Common to CSE and CSBS)	0	0	3	1.5
MANDATORY COURSES						
19UGM431	MC	Gender Equality	1	0	0	P/F
19UGM432	MC	Basics of Biology for Engineering	2	0	0	P/F
		TOTAL	18	2	9	21.5

Total No. of Credits – 21.5

Semester V

Course Code		Course Title	L	T	P	C
THEORY						
19UCS501	PC	Internet and Web Technology	2	0	3	3.5
19UCS502	PC	Software Engineering Practices (Common to CSE and CSBS)	3	0	0	3
19UCS503	PC	Mobile Applications Design and Development	2	0	3	3.5
19UCS504	PC	Theory of Computation	3	1	0	4
	PE	Professional Elective – I	3	0	0	3
	OE	Open Elective – I	3	0	0	3
19UGS531	BS	Reasoning and Aptitude	1	0	0	1
PRACTICAL						
19UCS507	PW	Creative Thinking and Innovation	0	0	2	1
19UGS532	HS	Soft Skills Laboratory	0	0	3	1.5
		TOTAL	17	1	11	23.5
Total No. of Credits – 23.5						

Semester VI

Course Code		Course Title	L	T	P	C
THEORY						
19UCS601	PC	Principles of Compiler Design	3	1	0	4
19UCS602	PC	Cryptography and Network Security	3	0	0	3
19UCS603	PC	Artificial Intelligence and Machine Learning (Common to CSE and CSBS)	3	0	0	3
	PE	Professional Elective – II	3	0	0	3
	PE	Professional Elective III	3	0	0	3
	OE	Open Elective – II	3	0	0	3
PRACTICAL						
19UCS607	PW	Product Development Project	0	0	8	4
19UCS608	PC	Artificial Intelligence and Machine Learning Laboratory (Common to CSE and CSBS)	0	0	3	1.5
19UGS633	HS	Interpersonal Skills Development Laboratory	0	0	3	1.5
MANDATORY COURSES						
19UGM632	MC	Indian Constitution and Essence of Indian Traditional knowledge in Information and Communication Engineering	1	0	0	P/F
		TOTAL	19	1	14	26
Total No. of Credits – 26						

Semester VII

Course Code		Course Title	L	T	P	C
THEORY						
19UME701	HS	Project Management and Finance	3	0	0	3
19UCS702	PC	Cloud Computing	3	0	0	3
19UCS703	PC	Building Internet of Things	3	0	0	3
	PE	Professional Elective IV	3	0	0	3
	PE	Professional Elective V	3	0	0	3
	OE	Open Elective – III	3	0	0	3
PRACTICAL						
19UCS707	PW	Summer Internship	0	0	0	1
19UCS708	PC	Cloud Computing Laboratory	0	0	3	1.5
19UCS709	PC	Internet of Things Laboratory	0	0	3	1.5
MANDATORY COURSES						
19UGM731	MC	Professional Ethics and human values	2	0	0	P/F
		TOTAL	20	0	6	22
Total No. of Credits – 22						

Semester VIII

Course Code		Course Title	L	T	P	C
THEORY						
	PE	Professional Elective VI	3	0	0	3
	OE	Open Elective – IV	3	0	0	3
PRACTICAL						
19UCS801	PW	Project Work	0	0	16	8
		TOTAL	6	0	16	14
Total No. of Credits – 14						

TOTAL CREDITS – 175

LIST OF ELECTIVES

Course Code	Course Title	L	T	P	C
19UCS901	Graph Theory	3	0	0	3
19UCS902	Parallel and Distributed Algorithms	3	0	0	3
19UCS903	Quantum Computing	3	0	0	3
19UCS904	Information theory and Coding	3	0	0	3
19UCS905	Embedded Systems	3	0	0	3
19UCS906	Fault Tolerant Computing	3	0	0	3
19UCS907	Ad Hoc and Sensor Networks	3	0	0	3
19UCS908	Computer Graphics	3	0	0	3
19UCS909	Data Mining	3	0	0	3
19UCS910	Neural Networks and Deep Learning	3	0	0	3
19UCS911	Speech and Natural Language Processing	3	0	0	3
19UCS912	Data Analytics	3	0	0	3
19UCS913	Information Retrieval	3	0	0	3
19UCS914	Expert Systems	3	0	0	3
19UCS915	Image Processing	3	0	0	3
19UCS916	Introduction to Digital Signal Processing	3	0	0	3
19UCS917	Human Computer Interaction	3	0	0	3
19UCS919	Blockchain Technology	3	0	0	3
19UCS920	Cyber Security	3	0	0	3
19UCS921	Multicore Programming	3	0	0	3
19UCS922	Information Storage Management	3	0	0	3
19UCS923	C# and .NET Framework	3	0	0	3
19UCS924	Game Programming	3	0	0	3
19UCS925	Fuzzy logic	3	0	0	3
19UCS926	Mobile and Pervasive computing	3	0	0	3
19UCS927	Business Intelligence and its applications	3	0	0	3
19UCS928	Mixed Reality	3	0	0	3

Course Code	Course Title	L	T	P	C
19UCS929	Green Computing	3	0	0	3
19UCS930	Advanced Java Programming	3	0	0	3
19UCS931	XML and Webservices	3	0	0	3
19UCS932	Distributed Systems	3	0	0	3
19UCS933	Robotics and Applications	3	0	0	3
19UCS934	E-Learning Concepts	3	0	0	3
19UIT911	Building Enterprise Applications	3	0	0	3
19UIT912	Software Testing	3	0	0	3

OPEN ELECTIVES OFFERED TO OTHER PROGRAMMES

Course Code	Course Title	L	T	P	C
19UCS971	Digital Marketing	3	0	0	3
19UCS972	Social Network Analysis Concepts	3	0	0	3
19UCS973	Java fundamentals	3	0	0	3
19UCS974	Cloud and Bigdata	3	0	0	3
19UCS975	Scripting Languages	3	0	0	3
19UCS976	Digital Automation with IOT	3	0	0	3
19UCS977	Programming and Data Structures	3	0	0	3
19UCS978	Introduction to C Programming	3	0	0	3
19UCS979	Machine learning for Engineers	3	0	0	3

LIST OF ONE CREDIT COURSES

Course Code	Course Title	L	T	P	C
19UCS861	R Programming	0	0	2	1
19UCS862	Server Side Scripting	1	0	0	1
19UCS863	Client side Scripting	1	0	0	1
19UCS864	Ruby on Rails	1	0	0	1
19UCS865	Wordpress	1	0	0	1
19UCS866	Multimedia	1	0	0	1
19UCS867	Mongo DB	0	0	2	1
19UCS868	Software Testing Tools	1	0	0	1
19UCS869	Animation Graphics	0	0	2	1
19UCS870	UML Modeling	0	0	2	1
19UCS871	Game Development	0	0	2	1
19UCS872	Comprehension-1(Data Structures and Algorithms-INFYTQ)	0	0	2	1
19UCS873	Comprehension-2 (DBMS-INFYTQ)	0	0	2	1

19UGM131	INDUCTION PROGRAMME	L	T	P	C
		3	0	0	3
PRE-REQUISITE:					