



**PERIYAR
MANIAMMAI**
INSTITUTE OF SCIENCE & TECHNOLOGY
(Deemed to be University)
Established Under Sec. 3 of UGC Act, 1956 • NAAC Accredited
think • innovate • transform

Criterion 1 – Curricular Aspects

Key Indicator	1.2	Academic Flexibility
Metric	1.2.2	Percentage of Programmes in which Choice Based Credit System (CBCS)/elective course system has been implemented (Data for the latest completed academic year)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING STRUCTURE OF THE PROGRAM CLEARLY INDICATING COURSES, CREDITS/ELECTIVES

Programmes

1. B.Tech Computer Science and Engineering Full Time

1 Curriculum and Syllabus for the B.Tech (Computer Science and Engineering) Programme after Revision

SEMESTER - I

S.No.	Description	AICTE Abbr.	Course Code	Courses	Credits				Hours			
					L	T	P	Total	L	T	P	Total
1	MA-I	BSC	XMA101	Calculus and Linear Algebra	3	1	0	4	3	1	0	4
2	BE	ESC	XBE102	Electrical and Electronics Engineering Systems	3	1	0	4	3	1	0	4
3	C	BSC	XAC103	Applied Chemistry for Engineers	3	1	0	4	3	1	0	4
4	PPS-T	ESC	XEC104	Basics of Electronic Devices and Circuits.	3	0	0	3	3	0	0	3
5	SC	HSM C	XSC105	Speech Communication	0	1	2	3	0	1	4	5
6	UMAN-II	MC	XUM106	Constitution of India	0	0	0	0	3	0	0	3
7	BEL	ESC	XBE107	Electrical and Electronics Engineering Systems Laboratory	0	0	1	1	0	0	2	2
8	CL	BSC	XAC108	Applied Chemistry for Engineers Laboratory	0	0	1	1	0	0	2	2
				Total				20				27

Total Credits – 20 Total Hours- 27

SEMESTER II

S.No.	Description	AICTE Abbr.	Course Code	Courses	Credits				Hours			
					L	T	P	Total	L	T	P	Total
1.	MA-II	BSC	XMA201	Calculus, Ordinary Differential Equations and Complex Variable	3	1	0	4	3	1	0	4
2.	PPS-T	ESC	XCP202	Programming for Problem Solving	3	0	0	3	3	0	0	3
3	P	BSC	XAP203	Applied Physics for Engineers	3	1	0	4	3	1	0	4
4	TC	HSMC	XTC204	Technical Communication	2	0	0	2	2	0	0	2
5	Works	ESC	XWS205	Workshop Practices	1	0	2	3	1	0	4	5
6	EM/BT	ESC	XEM206	Engineering Mechanics	3	0	0	3	3	0	0	3
7	PPS-L	ESC	XCP207	Programming for Problem Solving Lab	0	0	1	1	0	0	2	2
8	PL	BSC	XAP208	Applied Physics for Engineers Lab	0	0	1	1	0	0	2	2
				Total				21				25

Total Credits – 21 Total Hours- 25

SEMESTER III

S.No.	Description	AICTE Abbr.	Course Code	Courses	Credits				Hours			
					L	T	P	Total	L	T	P	Total
1.	MA-III	BSC	XMA301	Probability and statistics	3	0	0	3	3	0	0	3
2.	PCC T	PCC	XCS302	Digital Electronics	3	1	0	4	3	1	0	4
3.	PCC-T	PCC	XCS303	Data Structure & Algorithms	3	0	0	3	3	0	0	3
4.	PCC-T	PCC	XCS304	Object Oriented Programming	3	0	0	3	3	0	0	3
5.	PCC-T	PCC	XCS305	Signals & Systems	3	1	0	4	3	1	0	4
6.	MNGT-I	HS MC	XUM306	Entrepreneurship Development	2	0	0	2	2	0	0	2
7.	UMAN-I	MC (HS MC)	XUM307	Universal Human Values 2: Understanding Harmony	2	1	0	3	3	0	0	3
8	PCC-L	PCC	XCS308	Data Structure & Algorithms Laboratory	0	0	1	1	0	0	2	2
9	PCC-L	PCC	XCS309	Object Oriented Programming Laboratory	0	0	1	1	0	0	2	2
10	IPT-I	PRO J	XCS310	In-plant Training - I	-	-	-	1	-	-	-	-
				Total				25				26

Total Credits – 25 Total Hours- 26**SEMESTER IV**

S.no.	Description	AICTE Abbr.	Course Code	Courses	Credits				Hours			
					L	T	P	Total	L	T	P	Total
1.	MA-IV	BSC	XCS401	Discrete Mathematics	3	0	0	3	3	0	0	3
2.	PCC T	PCC	XCS402	Computer Organization & Architecture	3	1	0	4	3	1	0	4
3.	PCC-T	PCC	XCS403	Operating Systems	3	0	0	3	3	0	0	3
4.	PCC-T	PCC	XCS404	Design & Analysis of Algorithms	3	0	0	3	3	0	0	3
5.	MNGT-II	HSMC	XCS405	Economics for Engineers	3	0	0	3	3	0	0	3
6	UMAN-III	MC	XUM406	Disaster Management	0	0	0	0	3	0	0	3
7	PCC-L	PCC	XCS407	IT Workshop Lab	0	0	1	1	0	0	2	2
8	PCC-L	PCC	XCS408	Operating Systems Lab	0	0	1	1	0	0	2	2
9	PCC-L	PCC	XCS409	Design & Analysis of Algorithms Lab	0	0	1	1	0	0	2	2
				Total				19				25

Total Credits – 19 Total Hours- 25

SEMESTER V

S.No	Description	AICTE Abbr.	Course Code	Courses	Credits				Hours			
					L	T	P	Total	L	T	P	Total
1	PCC T	PCC	XCS501	Formal Language & Automata Theory	3	0	0	3	3	0	0	3
2	PCC-T	PCC	XCS502	Database Management Systems	3	0	0	3	3	0	0	3
3	PCC-T	PCC	XCS503	Software Engineering	3	0	0	3	3	0	0	3
4	PCC-T	PCC	XCS504	Computer Networks	3	1	0	4	3	1	0	4
5	PEC-I	PEC	XCSE**	Professional Elective courses	3	0	0	3	3	0	0	3
6	OE I	OE	XOE**	Open Elective Courses	3	0	0	3	3	0	0	3
7	PCC-L	PCC	XCS507	Database Management Systems Lab	0	0	1	1	0	0	2	2
8	PCC-L	PCC	XCS508	Software Engineering Lab	0	0	1	1	0	0	2	2
9	IPT-II	PROJ	XCS509	In-plant Training – II	-	-	-	1	-	-	-	-
				Total				22				23

Total Credits – 22 Total Hours- 23

SEMESTER VI

S.No.	Description	AICTE Abbr.	Course Code	Courses	Credits				Hours			
					L	T	P	Total	L	T	P	Total
1	PCC T	PCC	XCS601	Compiler Design	3	0	0	3	3	0	0	3
2	PCC-T	PCC	XCS602	Big Data Analytics	3	0	0	3	3	0	0	3
3	PEC-II	PEC	XCSE**	Professional Elective courses	3	0	0	3	3	0	0	3
4	OE II	OE	XOE**	Open Elective Courses	3	0	0	3	3	0	0	3
5	ELS	HSM C	XCS605	Professional Skills	1	0	2	3	1	0	4	5
6	PCC-T	PCC	XCS606	Cyber Security	3	0	0	3	3	0	0	3
7	PCC-L	PCC	XCS607	Compiler Design Lab	0	0	1	1	0	0	2	2
8	PCC-L	PCC	XCS608	Big Data Analytics Lab	0	0	1	1	0	0	2	2
				Total				20				24

Total Credits – 20 Total Hours- 24

SEMESTER VII

S.No.	Description	AICTE Abbr.	Course Code	Courses	Credits				Hours			
					L	T	P	Total	L	T	P	Total
1	PCC T	PCC	XCS701	Web Technology	3	0	0	3	3	0	0	3
2	PCC-T	PCC	XCS702	Machine Learning	3	0	0	3	3	0	0	3
3	PEC-III	PEC	XCSE**	Professional Elective courses	3	0	0	3	3	0	0	3
4	OE III	OE	XCSOE*	Open Elective Courses	3	0	0	3	3	0	0	3
5	UMAN-V	MC	XCS705	Environmental studies	0	0	0	0	3	0	0	3
6	PCC-L	PCC	XCS706	Web Technology Lab	0	0	1	1	0	0	2	2
7	PCC-L	PCC	XCS707	Machine Learning Lab	0	0	1	1	0	0	2	2
8	Proj I	PROJ	XCS708	Project Work (Phase-I)	0	0	2	2	0	0	4	4
9	IPT III	PROJ	XCS709	In-plant Training - III	-	-	-	2	-	-	-	-
				Total				18				23

Total Credits – 18 Total Hours- 23

SEMESTER VIII

S.No.	Description	AICTE Abbr.	Course Code	Courses	Credits				Hours			
					L	T	P	Total	L	T	P	Total
1	PEC-IV	PEC	XCSE**	Professional Elective courses	3	0	0	3	3	0	0	3
2	OE IV	OE	XCSOE*	Open Elective Courses	3	0	0	3	3	0	0	3
3	OE V	OE	XCSOE*	Open Elective Courses	3	0	0	3	3	0	0	3
4	Proj II	PROJ	XCS804	Project Work (Phase-II)	0	0	9	9	0	0	18	18
				Total				18				27

Total Credits – 18 Total Hours- 27

*** Professional Elective**

**** Open Elective**

***# Non-credit Course**

Grant Total Credits: 163

In Plant Training of 30 days in the vacation periods is mandatory to complete the graduation.

LIST OF ELECTIVES

The Professional Elective Courses are offered from the following Specialized Threads:

No.	Threads
I.	Theory and Algorithms
II.	Applications
III.Data	Science and Machine Intelligence
IV.Systems	

Semester V

S.No.	Description	AICTE Abbr.	Course Code	Courses	Credits				Hours			
					L	T	P	Total	L	T	P	Total
1	PEC-I	PEC	XCSE51	Graph Theory	3	0	0	3	3	0	0	3
2	PEC-I	PEC	XCSE52	Real Time Systems	3	0	0	3	3	0	0	3
3	PEC-I	PEC	XCSE53	Soft Computing	3	0	0	3	3	0	0	3
4	PEC-I	PEC	XCSE54	Human Computer Interaction	3	0	0	3	3	0	0	3

Semester VI

S.No.	Description	AICTE Abbr.	Course Code	Courses	Credits				Hours			
					L	T	P	Total	L	T	P	Total
1	PEC-II	PEC	XCSE61	Information Theory and Coding	3	0	0	3	3	0	0	3
2	PEC-II	PEC	XCSE62	Distributed Systems	3	0	0	3	3	0	0	3
3	PEC-II	PEC	XCSE63	Data Mining	3	0	0	3	3	0	0	3
4	PEC-II	PEC	XCSE64	Cloud Computing	3	0	0	3	3	0	0	3
5	PEC-II	PEC	XCSE65	Mobile Communication	3	0	0	3	3	0	0	3

Semester VII

S.No.	Description	AICTE Abbr.	Course Code	Courses	Credits				Hours			
					L	T	P	Total	L	T	P	Total
1	PEC-III	PEC	XCSE71	Parallel and Distributed Algorithms	3	0	0	3	3	0	0	3
2	PEC-III	PEC	XCSE72	IOT	3	0	0	3	3	0	0	3
3	PEC-III	PEC	XCSE73	Artificial Intelligence	3	0	0	3	3	0	0	3
4	PEC-III	PEC	XCSE74	Image Processing	3	0	0	3	3	0	0	3
5	PEC-III	PEC	XCSE75	Mobile Application Development	3	0	0	3	3	0	0	3