M.E COMPUTER SCIENCE AND ENGINEERING
REGULATIONS 2019
CHOICE BASED CREDIT SYSTEM
I – IV SEMESTERS CURRICULUM AND SYLLABI

FIRST SEMESTER

Code No.	Course	Category	L	T	P	C	H
19CP1201	Mathematical Foundation for Computer Science	FC	4	0	0	4	4
19CP1601	Advanced Data Structures and Algorithms	PC	4	0	0	4	4
19CP1602	Advanced Computer Architecture	PC	3	0	0	3	3
19CP1603	Advanced Operating Systems	PC	3	0	0	3	3
19CP1604	Machine Learning Techniques	PC	3	0	0	3	3
19CP1605	Advanced Software Engineering	PC	3	0	0	3	3
19CP1611	Data Structures Laboratory		0	0	4	2	4
		TOTAL	**20**	**0**	**4**	**22**	**24**

SECOND SEMESTER

Code No.	Course	Category	L	T	P	C	H
19CP2601	Network Design and Technologies	PC	3	0	0	3	3
19CP2602	Cyber Security	PC	3	0	0	3	3
19CP2603	Internet of Things	PC	3	0	0	3	3
19CP2604	Cloud Computing and Big Data	PC	3	0	0	3	3
	Professional Elective –I	PC	3	0	0	3	3
	Professional Elective –II	PC	3	0	0	3	3
19CP2611	Data Analytics Laboratory	PC	0	0	4	2	2
19CP2912	Term Paper Writing and Seminar	EEC	0	0	2	1	1
		TOTAL	**18**	**0**	**6**	**21**	**24**

THIRD SEMESTER

Code No.	Course	Category	L	T	P	C	H
	Professional Elective –III	PE	3	0	0	3	3
	Professional Elective –IV	PE	3	0	0	3	3
	Professional Elective –V	PE	3	0	0	3	3
19CP3911	Project Phase – I	EEC	0	0	12	6	12
	TOTAL		**9**	**0**	**12**	**15**	**21**

FOURTH SEMESTER

Code No.	Course	Category	L	T	P	C	H
19CP4911	Project Phase – II	EEC	0	0	24	12	24
	TOTAL		**0**	**0**	**24**	**12**	**24**

L   Lecture

T   Tutorial

P   Practical

H   Hours

Code No.	Course	L	T	P	C
PROFESSIONAL ELECTIVES					
PROFESSIONAL ELECTIVE I					
19CP2701	Advanced Databases	3	0	0	3
19CP2702	Image and Video Processing	3	0	0	3
19CP2703	Security Practices	3	0	0	3
19CP2704	Web Engineering	3	0	0	3
PROFESSIONAL ELECTIVE II					
19CP2705	Real Time Systems	3	0	0	3
19CP2706	Mobile and Pervasive Computing	3	0	0	3
19CP2707	Parallel Programming Paradigms	3	0	0	3
19CP2708	Information Retrieval Techniques	3	0	0	3
19CP2709	Software Architectures and Design	3	0	0	3
PROFESSIONAL ELECTIVE III					
19CP3701	Performance Analysis of Computer Systems	3	0	0	3
19CP3702	Language Technologies	3	0	0	3
19CP3703	Computer Vision	3	0	0	3
19CP3704	Speech Processing and Synthesis	3	0	0	3
19CP3705	Software Quality Assurance and Testing	3	0	0	3
PROFESSIONAL ELECTIVE IV					
19CP3706	Formal models of software systems	3	0	0	3

Code No.	Course	L	T	P	C
19CP3707	Embedded Software Development	3	0	0	3
19CP3708	Social Network Analysis	3	0	0	3
19CP3709	Compiler Optimization Techniques	3	0	0	3
19CP3710	Bio-Inspired Computing	3	0	0	3
PROFESSIONAL ELECTIVE V					
19CP3711	Data Visualization Techniques	3	0	0	3
19CP3712	Reconfigurable Computing	3	0	0	3
19CP3713	Mobile Application Development	3	0	0	3
19CP3714	Bio Informatics	3	0	0	3
19CP3715	Information Storage Management	3	0	0	3
EMPLOYABILITY ENHANCEMENT COURSE (EEC)					
19CP2912	Term Paper Writing and Seminar	0	0	2	1
19CP3911	Project Work Phase – I	0	0	12	6
19CP4911	Project Work Phase – II	0	0	24	12
FOUNDATION COURSES (FC)					
19CP1201	Mathematical Foundation forComputer Science	4	0	0	4
PROFESSIONAL CORE (PC)					
19CP1601	Advanced Data Structures and Algorithms	4	0	0	4
19CP1602	Advanced Computer Architecture	3	0	0	3
19CP1603	Advanced Operating System	3	0	0	3
19CP1604	Machine Learning Techniques	3	0	0	3

Code No.	Course	L	T	P	C
19CP1605	Advanced Software Engineering	3	0	0	3
19CP1611	Data Structures Laboratory	0	0	4	2
19CP2601	Network Design and Technologies	3	0	0	3
19CP2602	Cyber Security	3	0	0	3
19CP2603	Internet of Things	3	0	0	3
19CP2604	Cloud Computing and Big Data	3	0	0	3
19CP2611	Data Analytics Laboratory	0	0	4	2