ANNA UNIVERSITY, CHENNAI
AFFILIATED INSTITUTIONS
M.E. COMPUTER SCIENCE AND ENGINEERING
(With Specialization in Networks)
REGULATIONS – 2017
CHOICE BASED CREDIT SYSTEM
CURRICULA AND SYLLABI

SEMESTER - I

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY								
1.	MA5160	Applied Probability and Statistics	FC	4	4	0	0	4
2.	CP5151	Advanced Data Structures and Algorithms	PC	4	4	0	0	4
3.	CP5152	Advanced Computer Architecture	PC	3	3	0	0	3
4.	CP5153	Operating System Internals	PC	3	3	0	0	3
5.	CP5154	Advanced Software Engineering	PC	3	3	0	0	3
6.	CP5191	Machine Learning Techniques	PC	3	3	0	0	3
PRACTICALS								
7.	CP5161	Data Structures Laboratory	PC	4	0	0	4	2
			TOTAL	**24**	**20**	**0**	**4**	**22**

SEMESTER II

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY								
1.	NE5291	Network Design and Programming	PC	3	3	0	0	3
2.	NE5201	Network Security	PC	3	3	0	0	3
3.	CP5292	Internet of Things	PC	3	3	0	0	3
4.	NE5202	Wireless Technologies	PC	3	3	0	0	3
5.		Professional Elective -I	PE	3	3	0	0	3
6.		Professional Elective -II	PE	3	3	0	0	3
PRACTICALS								
7.	NE5281	Network Design and Programming Laboratory	PC	4	0	0	4	2
8.	CP5281	Term Paper Writing and Seminar	EEC	2	0	0	2	1
			TOTAL	**24**	**18**	**0**	**6**	**21**

SEMESTER III

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
THEORY								
1.		Professional Elective -III	PE	3	3	0	0	3
2.		Professional Elective -IV	PE	3	3	0	0	3
3.		Professional Elective -V	PE	3	3	0	0	3
PRACTICALS								
4.	NE5311	Project Work Phase - I	EEC	12	0	0	12	6
			TOTAL	21	9	0	12	15

SEMESTER IV

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
PRACTICALS								
1.	NE5411	Project Work Phase - II	EEC	24	0	0	24	12
			TOTAL	24	0	0	24	12

TOTAL NO. OF CREDITS: 70

FOUNDATION COURSES (FC)

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	MA5160	Applied Probability and Statistics	FC	4	4	0	0	4

PROFESSIONAL CORE (PC)

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	CP5151	Advanced Data Structures and Algorithms	PC	4	4	0	0	4
2.	CP5152	Advanced Computer Architecture	PC	3	3	0	0	3
3.	CP5153	Operating System Internals	PC	3	3	0	0	3
4.	CP5154	Advanced Software Engineering	PC	3	3	0	0	3
5.	CP5191	Machine Learning Techniques	PC	3	3	0	0	3
6.	CP5161	Data Structures Laboratory	PC	4	0	0	4	2
7.	NE5291	Network Design and Programming	PC	3	3	0	0	3
8.	NE5201	Network Security	PC	3	3	0	0	3
9.	CP5292	Internet of Things	PC	3	3	0	0	3
10.	NE5202	Wireless Technologies	PC	3	3	0	0	3
11.	NE5281	Network Design and Programming Laboratory	PC	4	0	0	4	2

EMPLOYABILITY ENHANCEMENT COURSE (EEC)

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	CP5281	Term Paper Writing and Seminar	EEC	2	0	0	2	1
2.	CP5311	Project Work Phase – I	EEC	12	0	0	12	6
3.	CP5411	Project Work Phase – II	EEC	24	0	0	24	12

PROFESSIONAL ELECTIVES (PE)*
SEMESTER II
ELECTIVE I

SL. No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	CP5072	Software Architectures and Design	PE	3	3	0	0	3
2.	CP5071	Image Processing and Analysis	PE	3	3	0	0	3
3.	CP5097	Mobile Application Development	PE	3	3	0	0	3
4.	CP5092	Cloud Computing Technologies	PE	3	3	0	0	3

SEMESTER II
ELECTIVE II

SL. No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	MU5251	Multimedia Communication Networks	PE	3	3	0	0	3
2.	CP5093	Mobile and Pervasive Computing	PE	3	3	0	0	3
3.	NE5001	Simulation of Computer Systems and Networks	PE	3	3	0	0	3
4.	NE5002	High Speed Switching Architectures	PE	3	3	0	0	3

SEMESTER III
ELECTIVE III

SL. No	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	NE5071	Network Management	PE	3	3	0	0	3
2.	NE5003	Network Performance Analysis	PE	3	3	0	0	3
3.	NE5004	Next Generation Networks	PE	3	3	0	0	3
4.	NE5005	Software Defined Networks and Network Function Virtualization (SDN and NFV)	PE	3	3	0	0	3

SEMESTERIII
ELECTIVE IV

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	CP5073	Embedded Software Development	PE	3	3	0	0	3
2.	NE5006	Protocols and Architectures for Wireless Sensor Networks	PE	3	3	0	0	3
3.	CP5076	Information Storage Management	PE	3	3	0	0	3
4.	CP5293	Big Data Analytics	PE	3	3	0	0	3

SEMESTER III
ELECTIVE V

SL. NO	COURSE CODE	COURSE TITLE	CATEGORY	CONTACT PERIODS	L	T	P	C
1.	CP5074	Social Network Analysis	PE	3	3	0	0	3
2.	CP5091	Web Engineering	PE	3	3	0	0	3
3.	NE5007	Ethical Hacking	PE	3	3	0	0	3
4.	NE5008	Digital Forensics	PE	3	3	0	0	3