

#### **REGULATIONS 2019**

# DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING M.E - COMMUNICATION AND NETWORKING

#### **CURRICULUM and SYLLABUS**

		Course		Contact Hours per Week					
S.No.	Category	Code	Course Title	L	Т	Р	Credits	Prerequisite	
1	FC	19MMA02	Applied Mathematics for Communication Engineers	4	0	0	4	-	
2	PC	19MCN01	Advanced Discrete Time Signal Processing	3	1	0	4	-	
3	PC	19MCN02	Advanced Digital Communication Techniques	3	0	0	3	-	
4	PC	19MCN03	Advanced Wireless Communications Systems	3	0	0	3	-	
5	PC	19MCN04	Communication Networks Modelling and Simulation	3	0	0	3	-	
6	PC	19MCN38	Communication Systems Laboratory	0	0	4	2	-	
7	PC	19MCN05	Communication Network Security	3	0	0	3	-	
8	PC	19MCN06	Cognitive Radio Networks	3	0	0	3	-	
9	PC	19MCN07	Advanced Wireless Networks	3	0	0	3	-	
10	PC	19MCN39	Networking Laboratory	0	0	4	2	-	
11	PC	19MCS09	Internet of Things	3	0	0	3	-	
12	EEC	19MCN40	Term Paper Writing and Seminar	0	0	2	1	-	
13	EEC	19MCN41	Project Work Phase I	0	0	12	6	-	
14	EEC	19MCN42	Project Work Phase II	0	0	24	12	-	
15	PE	19MCN09	Analysis and Design of CMOS Analog Integrated Circuits	3	0	0	3	-	
16	PE	19MCN10	RF Integrated Circuits	3	0	0	3	-	
17	PE	19MCN11	Real Time Embedded Systems	3	0	0	3	-	
18	PE	19MVL07	MEMS and NEMS	3	0	0	3	-	
19	PE	19MCN12	Signal Integrity for High Speed Design	3	0	0	3	-	
20	PE	19MCN13	VLSI for Wireless Communication	3	0	0	3	-	
21	PE	19MCN14	Digital Communication Receivers	3	0	0	3	-	
22	PE	19MCN15	Advanced Electromagnetic Interference and Compatibility	3	0	0	3	-	
23	PE	19MCN16	Detection and Estimation Theory	3	0	0	3	-	
24	PE	19MCN17	Advanced Satellite Communication and Navigation Systems	3	0	0	3	-	
25	PE	19MCN18	Fundamentals of Cloud Computing	3	0	0	3	-	
26	PE	19MCN19	Advanced Digital Image Processing	3	0	0	3	-	
27	PE	19MCN20	Radar Signal Processing	3	0	0	3	-	
28	PE	19MCN21	Speech Processing and Synthesis	3	0	0	3	-	
29	PE	19MCN22	Pattern Recognition and Machine Learning	3	0	0	3	-	
30	PE	19MCN23	Wavelet Transforms and its Applications	3	0	0	3	-	
31	PE	19MCN24	DSP Processor Architecture and Programming	3	0	0	3	-	
32	PE	19MCN25	Space Time Wireless Communication	3	0	0	3	-	
33	PE	19MCN26	Broad Band Wireless Access Technologies	3	0	0	3	-	
34	PE	19MCN27	Software Defined Radio	3	0	0	3	-	
35	PE	19MCN28	Network Routing Algorithms	3	0	0	3	-	
36	PE	19MCN29	Optical Networks	3	0	0	3	-	
37	PE	19MCN30	Multimedia Compression Techniques	3	0	0	3	-	

38	PE	19MCN31	Ultra Wide Band Communication	3	0	0	3	-
39	PE	19MCN32	Game theory for Wireless Communication and Networking	3	0	0	3	-
40	PE	19MCN33	Soft Computing Techniques	3	0	0	3	-
41	PE	19MCN34	Network Processors	3	0	0	3	-
42	PE	19MCN35	Network Management	3	0	0	3	-
43	PE	19MCN36	Wireless Adhoc and Sensor Networks	3	0	0	3	-
44	PE	19MCN37	Parallel Processing	3	0	0	3	-

### **SEMESTER I**

	Course	Course Title	Contact Hours per Week			
S.No.	Code		L	Т	Р	Credits
		Applied Mathematics for Communication				
1	19MMA02	Engineers	4	0	0	4
2	19MCN01	Advanced Discrete Time Signal Processing	3	1	0	4
3	19MCN02	Advanced Digital Communication Techniques	3	0	0	3
4	19MCN03	Advanced Wireless Communications Systems	3	0	0	3
		Communication Networks Modelling and				
5	19MCN04	Simulation	3	0	0	3
6		Professional Elective I	3	0	0	3
7	19MCN38	Communication Systems Laboratory	0	0	4	2
		Total	19	1	4	22

### SEMESTER II

	Course		Contact Hours per Week			
S.No.	Code	Course Title	L	Т	Р	Credits
1	19MCN05	Communication Network Security	3	0	0	3
2	19MCN06	Cognitive Radio Networks	3	0	0	3
3	19MCN07	Advanced Wireless Networks	3	0	0	3
4		Professional Elective II	3	0	0	3
5		Professional Elective III	3	0	0	3
6		Professional Elective IV	3	0	0	3
7	19MCN39	Networking Laboratory	0	0	4	2
8	19MCN40	Term Paper Writing and Seminar	0	0	2	2
	Total				6	21

## **SEMESTER III**

4	19MCN41	Project Work Phase I	0	0	12	6
3		Professional Elective VI	3	0	0	3
2		Professional Elective V	3	0	0	3
1	19MCS09	Internet of Things	3	0	0	3

## **SEMESTER IV**

		Course	Contact Hours per Week				
	S.No.	Code	Course Title	L	Т	Р	Credits
Г	1	19MCN42	Project Work Phase II	0	0	24	12
			Total	0	0	24	12

**TOTAL CREDITS: 70**