SETHU INSTITUTE OF TECHNOLOGY

PULLOOR, KARIAPATTI – 626 115.

(AN AUTONOMOUS INSTITUTION)

REGULATION – 2019

M.E COMMUNICATION SYSTEMS

CURRICULUM & SYLLABI

Chairman

Board of Studies

Dr.R.VANI DEVI M.Tech., Ph.D.,
Professor & PG Head (Com.Sys),
DEPARTMENT OF ECE,
Sethu Institute of Technology,
Pulloor, Kariapatti, Virudhunagar-626 115.

Chair Person

Academic Council

CHAIRMAN
ACADEMIC COUNCIL
Sethu Institute of Technology
Pulloor, Kariapatti - 625 115

SETHU INSTITUTE OF TECHNOLOGY

Pulloor, Kariapatti – 626 115

M.E. Degree Programme

CURRICULUM

Regulation 2019

Master of Engineering in COMMUNICATION SYSTEMS

OVERALL COURSE STRUCTURE

Category	TOTAL No. of Courses	Credits	Percentage
PROGRAM CORE	4	12	17.2
PROGRAM ELECTIVE	5	15	21.4
OPEN ELECTIVE	1	3	4.3
MANDATORY COURSE	1	3	4.3
AUDIT COURSE	2	0	0
LABORATORIES	4	8	11.4
MINI PROJECT WITH SEMINAR	1	3	4.3
PROJECT WORK	2	26	37.1
TOTAL	20	70	100

COURSE CREDITS – SEMESTER WISE

Branch	I	II	III	IV	TOTAL
COMMUNICATION SYSTEMS	16	16	22	16	70

Employability Courses
Skill Development Courses
Entrepreneurship Development Courses
Any two or all of the above

POs	Program Outcomes-Statements The Graduate will have an ability to	Level
1. **Scholarship of Knowledge**	Demonstrate a degree of mastery over the area as per the specialization of the program, higher than the requirements in the appropriate bachelor program	**Cognitive Domain** **(Apply)**
2. **Critical Thinking**	Analyze complex engineering problem critically and provide feasible/optimal solution after considering public health, safety, ethical, societal and environmental factors in the core area of expertise.	**Cognitive Domain** **(Analyze)**
3. **Problem Solving and Research Skill**	Independently carry out research /investigation and development work to solve practical problems	**Cognitive Domain** **(Create)**
4. Modern Tool Usage	Apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling, to complex engineering activities with an understanding of the limitations	**Cognitive Domain** **(Apply)**
5. **Communication**	Write and present a substantial technical report/document	**Affective Domain** **(Organization)**
6. Life Long Learning	Recognize the need for, and have the preparation and ability to engage in life-long learning independently, with continuous enthusiasm and commitment to improve knowledge and competence.	**Affective Domain** **(Characterization)**

Program Educational Objectives
Our Graduates will :
Possess strong technical knowledge in the field of communication systems to meet the needs of Academia, research and Industry (Core Competence)
Demonstrate continual interest to learn new technologies through self learning for successful professional career.(Life Long Learning)
Exhibit effective communication skills, professional skills and practice ethical principles.(Professionalism)

SUMMER/ WINTER COURSES

Winter Courses									
Sl.No	**Subject Code**	**Subject Name**	**Sem**	**L**	**T**	**P**	**C**	**Summer/ Winter**	**Category**
1.	19PCM101	Adaptive Signal Processing	I	3	0	0	3	Winter	Program Core
2.	19PCM102	Antennas and Radiating Systems	I	3	0	0	3	Winter	Program Core
3.	-	Elective I	I	3	0	0	3	Winter	Program Elective
4.	19PCM103	Antennas and Radiating Systems lab	I	0	0	4	2	Winter	Program Core
5.	19PCM104	Adaptive Signal Processing Lab	I	0	0	4	2	Winter	Program Core
6.	19PGM701	Research Methodology and IPR	I	3	0	0	3	Winter	Program Core
7.	19PGM801	Pedagogy Studies	I	3	0	0	0	Winter	Program Core
8.	-	Elective III	III	3	0	0	3	Winter	Program Elective
9.	-	Elective IV	III	3	0	0	3	Winter	Program Elective
10.	-	Elective V	III	3	0	0	3	Winter	Program Elective
11.	-	Open Elective	III	3	0	0	3	Winter	Open Elective
12.	19PCM301	Dissertation Phase – I	III	0	0	20	10	Winter	Dissertation

Summer Courses									
13.	19PCM201	Advanced Communication Networks	II	3	0	0	3	Summer	Program Core
14.	19PCM202	Wireless and Mobile Communication	II	3	0	0	3	Summer	Program Core
15.	-	Elective II	II	3	0	0	3	Summer	Program Elective
16.	19PCM203	Advanced Communication Networks Lab	II	0	0	4	2	Summer	Program Core
17.	19PCM204	Wireless and Mobile Communication Lab	II	0	0	4	2	Summer	Program Core
18.	19PCM205	Mini Project with seminar	II	0	0	6	3	Summer	Program Core
19.	19PGM802	English for Research Paper Writing	II	3	0	0	0	Summer	Program Core
20.	19PCM401	Dissertation Phase – II	IV	0	0	32	16	Summer	Dissertation

COURSE CATEGORY: PROGRAM ELECTIVES

S.No	Course Code	Course Title	L	T	P	C
1.	**19PCM501**	Wireless Sensor Networks	**3**	**0**	**0**	**3**
2.	**19PCM502**	Optical Networks	**3**	**0**	**0**	**3**
3.	**19PCM503**	Cognitive Radio	**3**	**0**	**0**	**3**
4.	**19PCM504**	RF Circuits and Microwave Systems	**3**	**0**	**0**	**3**
5.	**19PCM505**	Communication Network Security	**3**	**0**	**0**	**3**
6.	**19PCM506**	Satellite Communication	**3**	**0**	**0**	**3**
7.	**19PCM507**	Communication Protocol Engineering	**3**	**0**	**0**	**3**
8.	**19PCM508**	Speech and Audio Signal Processing	**3**	**0**	**0**	**3**
9.	**19PCM509**	MIMO System	**3**	**0**	**0**	**3**
10.	**19PCM510**	High Performance Communication Networks	**3**	**0**	**0**	**3**
11.	**19PCM511**	Pattern Recognition	**3**	**0**	**0**	**3**
12.	**19PCM512**	Microelectronics and VLSI Technology	**3**	**0**	**0**	**3**
13.	**19PCM513**	Smart Devices and Emerging Mobile Technologies	**3**	**0**	**0**	**3**
14.	**19PCM514**	Network Management System	**3**	**0**	**0**	**3**
15.	**19PCM515**	Ubiquitous Computing and Pervasive Computing	**3**	**0**	**0**	**3**
16.	**19PCM516**	DSP Processor Architecture and Programming	**3**	**0**	**0**	**3**
17.	**19PCM517**	Mobile and Social Computing	**3**	**0**	**0**	**3**
18.	**19PCM518**	Data Compression	**3**	**0**	**0**	**3**
19.	**19PCM519**	Medical Imaging Techniques	**3**	**0**	**0**	**3**
20.	**19PCM520**	Global Positioning Systems	**3**	**0**	**0**	**3**

COURSE CATEGORY: OPEN ELECTIVE

S.No	Course Code	Course Title	L	T	P	C
1.	**19PCD601**	Industrial Safety	**3**	**0**	**0**	**3**
2.	**19PCS602**	Business analytics	**3**	**0**	**0**	**3**
3.	**19PCM603**	IoT for Smart Applications	**3**	**0**	**0**	**3**
4.	**19PPE604**	Bio Energy from Waste	**3**	**0**	**0**	**3**
5.	**19PSE605**	Smart City Technologies	**3**	**0**	**0**	**3**

COURSE CATEGORY: AUDIT COURSES

S.No	Course Code	Course Title	L	T	P	C
1.	**19PGM801**	Pedagogy Studies	**2**	**0**	**0**	**0**
2.	**19PGM802**	English for Research Paper Writing	**2**	**0**	**0**	**0**

REGULATION – 2019

(Applicable to the students admitted from the Academic Year 2019 – 2020 onwards)

CURRICULUM I TO IV SEMESTERS (FULL TIME)

SEMESTER I

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	**19PCM101**	Adaptive Signal Processing	**3**	**0**	**0**	**3**
2.	**19PCM102**	Antennas and Radiating Systems	**3**	**0**	**0**	**3**
3.	**-**	Elective I	**3**	**0**	**0**	**3**
4.	**19PGM701**	Research Methodology and IPR (Mandatory course)	**3**	**0**	**0**	**3**
5.	**19PGM801**	Pedagogy Studies (Audit course-1)	**2**	**0**	**0**	**0**
PRACTICAL						
6.	**19PCM103**	Antennas and Radiating Systems lab	**0**	**0**	**4**	**2**
7.	**19PCM104**	Adaptive Signal Processing Lab	**0**	**0**	**4**	**2**
Total			**14**	**0**	**8**	**16**
Total Number of Credits: 16						

SEMESTER II

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	**19PCM201**	Advanced Communication Networks	**3**	**0**	**0**	**3**
2.	**19PCM202**	Wireless and Mobile Communication	**3**	**0**	**0**	**3**
3.	**-**	Elective II	**3**	**0**	**0**	**3**
4.	**19PGM802**	English for Research Paper Writing (Audit Course-2)	**2**	**0**	**0**	**0**
PRACTICAL						
5.	**19PCM203**	Advanced Communication Networks Lab	**0**	**0**	**4**	**2**
6.	**19PCM204**	Wireless and Mobile Communication Lab	**0**	**0**	**4**	**2**
7.	**19PCM205**	Mini Project with seminar	**0**	**0**	**6**	**3**
Total			**11**	**0**	**14**	**16**
Total Number of Credits: 16						

SEMESTER III

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	-	Elective III	3	0	0	3
2.	-	Elective IV	3	0	0	3
3.	-	Elective V	3	0	0	3
4.	-	Open Elective	3	0	0	3
PRACTICAL						
5.	**19PCM301**	Dissertation Phase – I	**0**	**0**	**20**	**10**
Total			**12**	**0**	**20**	**22**
Total Number of Credits: 22						

SEMESTER IV

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
PRACTICAL						
1.	**19PCM401**	Dissertation Phase – II	**0**	**0**	**32**	**16**
Total			**0**	**0**	**32**	**16**
Total Number of Credits: 16						

TOTAL NO. OF CREDITS: 70