

SETHU INSTITUTE OF TECHNOLOGY

PULLOOR, KARIAPATTI – 626 115.

(AN AUTONOMOUS INSTITUTION)



REGULATION – 2015

M.E COMMUNICATION SYSTEMS

CURRICULUM & SYLLABI

Approved in the Academic Council Meeting held
on 06.10.2016

Chairman

Board of Studies

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

Chairman

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 2015

Master of Engineering in COMMUNICATION SYSTEMS

OVERALL COURSE STRUCTURE

Category	TOTAL No. of Courses	Credits	Percentage
BASIC SCIENCE	01	04	5.71%
PROGRAM CORE	11	30	42.86%
PROGRAM ELECTIVE	05	15	21.43%
OPEN ELECTIVE	01	03	4.29%
PROJECT WORK	02	18	25.71%
TOTAL	20	70	100%

COURSE CREDITS – SEMESTER WISE

Branch	I	II	III	IV	TOTAL
COMMUNICATION SYSTEMS	19	18	18	15	70

Employability Courses

Skill Development Courses

Entrepreneurship Development Courses

Any two or all of the above

SUMMER/ WINTER COURSES

Winter Courses									
Sl.No	Subject Code	Subject Name	Sem	L	T	P	C	Summer/ Winter	Category
1.	15PMA122	Applied Mathematics for Communication Engineers	I	3	2	0	4	Winter	Basic Science
2.	15PCM101	Adaptive Signal Processing	I	4	0	0	4	Winter	Program Core
3.	15PCM102	Advanced Radio Systems	I	3	0	0	3	Winter	Program Core
4.	15PCM103	Modulation and Coding Techniques	I	3	0	0	3	Winter	Program Core
5.	-	Elective I	I	3	0	0	3	Winter	Program Elective
6.	15PCM104	Communication System Design Laboratory	I	0	0	4	2	Winter	Program Core
7.	15PCM301	Wireless Communication Engineering	III	3	0	0	3	Winter	Program Core
8.	15PCM302	Telecommunication Switching and Management	III	3	0	0	3	Winter	Program Core
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.	15PCM303	Project Work (Phase I)	III	0	0	6	3	Winter	Project Work

Summer Courses									
13.	15PCM201	Satellite Communication	II	3	0	0	3	Summer	Program Core
14.	15PCM202	Optical Networks	II	3	0	0	3	Summer	Program Core
15.	15PCM203	Microwave Integrated Circuits	II	3	0	0	3	Summer	Program Core
16.	-	Elective II	II	3	0	0	3	Summer	Program Elective
17.	-	Elective III	II	3	0	0	3	Summer	Program Elective
18.	15PCM204	Microwave and Networks Laboratory	II	0	0	4	2	Summer	Program Core
19.	15PCM205	Internship/Industrial Training	II	0	0	2	1	Summer	Program Core
20.	15PCM401	Project Work (Phase II)	IV	0	0	30	15	Summer	Project Work

COURSE CATEGORY: PROGRAM ELECTIVES

S.No	Course Code	Course Title	L	T	P	C
1.	15PCM501	CDMA Systems	3	0	0	3
2.	15PCM502	Wireless Ad-hoc Networks	3	0	0	3
3.	15PCM503	Global Positioning Systems	3	0	0	3
4.	15PCM504	High Performance Communication Networks	3	0	0	3
5.	15PCM505	Data Compression	3	0	0	3
6.	15PCM506	Adaptive Antennas	3	0	0	3
7.	15PCM507	DSP Processor Architecture and Programming	3	0	0	3
8.	15PCM508	RF MEMS	3	0	0	3
9.	15PCM509	Communication Network Security	3	0	0	3
10.	15PCM510	Wireless Networks	3	0	0	3
11.	15PCM511	Mobile Communication Networks	3	0	0	3
12.	15PCM512	Numerical Techniques in Electromagnetics	3	0	0	3
13.	15PCM513	Network Routing Algorithms	3	0	0	3
14.	15PCM514	Medical Imaging Techniques	3	0	0	3
15.	15PCM515	MIMO Communication Systems	3	0	0	3
16.	15PCM516	Beamforming in Wireless Communication	3	0	0	3
17.	15PCM517	Network Management System	3	0	0	3
18.	15PCM518	Communication Protocol Engineering	3	0	0	3
19.	15PCM519	Cognitive Radio Networks	3	0	0	3
20.	15PCM520	Communication Network Design	3	0	0	3
21.	15PCM521	Digital Communication Receivers	3	0	0	3
22.	15PCM522	Sensor Networks	3	0	0	3
23.	15PCM523	Ultra Wideband Communication	3	0	0	3

24.	15PCM524	Wireless Body Area Network	3	0	0	3
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COURSE CATEGORY: OPEN ELECTIVE

S.No	Course Code	Course Title	L	T	P	C
1.	15PSE601	Research Methodology	3	0	0	3
2.	15PEN602	Pedagogy	3	0	0	3
3.	15PEN603	Professional and Communication Skill	3	0	0	3
4.	15PPE604	Soft Computing	3	0	0	3
5.	15PCD605	Industrial Safety	3	0	0	3
6.	15PCD606	Business Management and Leadership	3	0	0	3
7.	15PCS607	Management Information System	3	0	0	3

COURSE CATEGORY: ELECTIVES FOR Ph.D SCHOLARS

S.No	Course Code	Course Title	L	T	P	C
1.	15PCM525	Green Radio Networks	3	0	0	3
2.	15PCM526	Application of DSP Techniques in Communication Systems	3	0	0	3
3.	15PCM527	EM Band Gap Structures for Antenna	3	0	0	3
4.	15PCM528	Modern Planar Antennas	3	0	0	3
5.	15PCM529	Pattern Recognition	3	0	0	3

REGULATION – 2015

(Applicable to the students admitted from the Academic Year 2015 – 2016 onwards)

CURRICULUM I TO IV SEMESTERS (FULL TIME)

SEMESTER I

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	15PMA122	Applied Mathematics for Communication Engineers	3	2	0	4
2.	15PCM101	Adaptive Signal Processing	4	0	0	4
3.	15PCM102	Advanced Radiation Systems	3	0	0	3
4.	15PCM103	Modulation and Coding Techniques	3	0	0	3
5.	-	Elective I	3	0	0	3
PRACTICAL						
6.	15PCM104	Communication System Design Laboratory	0	0	4	2
Total			16	2	4	19
Total Number of Credits: 19						

SEMESTER II

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	15PCM201	Satellite Communication	3	0	0	3
2.	15PCM202	Optical Networks	3	0	0	3
3.	15PCM203	Microwave Integrated Circuits	3	0	0	3
4.	-	Elective II	3	0	0	3
5.	-	Elective III	3	0	0	3
PRACTICAL						
6.	15PCM204	Microwave and Networks Laboratory	0	0	4	2
7.	15PCM205	Internship/ Industrial Training	0	0	2	1
Total			15	0	6	18
Total Number of Credits: 18						

SEMESTER III

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	15PCM301	Wireless Communication Engineering	3	0	0	3
2.	15PCM302	Telecommunication Switching and Management	3	0	0	3
3.	-	Elective IV	3	0	0	3
4.	-	Elective V	3	0	0	3
5.	-	Open Elective	3	0	0	3
PRACTICAL						
6.	15PCM303	Project Work (Phase I)	0	0	6	3
Total			15	0	6	18
Total Number of Credits: 18						

SEMESTER IV

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
PRACTICAL						
1.	15PCM401	Project Work (Phase II)	0	0	30	15
Total			0	0	30	15
Total Number of Credits: 15						

TOTAL NO. OF CREDITS: 70

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COURSE CREDITS – SEMESTER WISE

Branch	I	II	III	IV	V	VI	TOTAL
COMMUNICATION SYSTEMS	13	11	9	10	12	15	70

M.E COMMUNICATION SYSTEMS**REGULATION – 2015**

(Applicable to the students admitted from the Academic Year 2015 – 2016 onwards)

CURRICULUM I TO VI SEMESTERS (PART TIME)**SEMESTER I**

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	15PMA122	Applied Mathematics for Communication Engineers	3	2	0	4
2.	15PCM101	Adaptive Signal Processing	4	0	0	4
3.	15PCM102	Advanced Radiation Systems	3	0	0	3
PRACTICAL						
4.	15PCM104	Communication System Design Laboratory	0	0	4	2
Total			10	2	4	13
Total Number of Credits: 13						

SEMESTER II

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	15PCM201	Satellite Communication	3	0	0	3
2.	15PCM202	Optical Networks	3	0	0	3
3.	15PCM203	Microwave Integrated Circuits	3	0	0	3
PRACTICAL						
4.	15PCM204	Microwave and Networks Laboratory	0	0	4	2
Total			9	0	4	11
Total Number of Credits: 11						

SEMESTER III

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	15PCM103	Modulation and Coding Techniques	3	0	0	3
2.	15PCM301	Wireless Communication Engineering	3	0	0	3
3.	-	Elective I	3	0	0	3
Total			9	0	0	9
Total Number of Credits: 9						

SEMESTER IV

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	15PCM302	Telecommunication Switching and Management	3	0	0	3
2.	-	Elective II	3	0	0	3
3.	-	Elective III	3	0	0	3
PRACTICAL						
4.	15PCM205	Internship/ Industrial Training	0	0	2	1
Total			9	0	0	10
Total Number of Credits: 10						

SEMESTER V

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
THEORY						
1.	-	Elective IV	3	0	0	3
2.	-	Elective V	3	0	0	3
3.	-	Open Elective	3	0	0	3
PRACTICAL						
4.	15PCM303	Project Work (Phase I)	0	0	6	3
Total			9	0	6	12
Total Number of Credits: 12						

SEMESTER VI

SL. No.	COURSE CODE	COURSE TITLE	L	T	P	C
PRACTICAL						
1.	15PCM401	Project Work (Phase II)	0	0	30	15
Total			0	0	30	15
Total Number of Credits: 15						

TOTAL NO. OF CREDITS: 70