

**Curricula of
M.E- Communication Systems
Regulations 2025**

Choice Based Credit System

**Department of Electronics & Communication
Engineering**



ADHIYAMAAN COLLEGE OF ENGINEERING

[An Autonomous Institution Affiliated to Anna University, Chennai]

[Accredited by NAAC]

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TAMILNADU, INDIA

ADHIYAMAAN COLLEGE OF ENGINEERING (AUTONOMOUS), HOSUR

(AUTONOMOUS)

AFFILIATED TO ANNA UNIVERSITY

M.E. COMMUNICATION SYSTEMS

REGULATIONS – 2025

CHOICE BASED CREDIT SYSTEM

I TO IV SEMESTERS CURRICULA AND SYLLABI

SEMESTER I

S.NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	125COT01	Linear Algebra and its Optimization Techniques	FC	3	1	0	4	4
2	125COT02	Adaptive Signal Processing	PCC	3	0	0	3	3
3	125COT03	Modern Digital Communication Techniques	PCC	3	0	0	3	3
4	125COT04	Advanced Wireless Communication	PCC	3	0	0	3	3
5	125COT05	Advanced Radiation Systems	PCC	3	0	0	3	3
6	125COT06	Research Methodology & IPR	RMC	3	0	0	3	3
7	125COAXX	Audit Course-I*	AC	2	0	0	2	0
PRACTICAL								
8	125COP07	Digital Communication Systems Laboratory	PCC	0	0	2	2	1
9	125COP08	Advanced Digital Signal Processing Laboratory	PCC	0	0	2	2	1
Total				20	1	4	25	21

SEMESTER II

S.NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	225COT01	RF system design	PCC	3	0	0	3	3
2	225COT02	Photonic and Microwave Integrated Circuits	PCC	3	0	0	3	3
3	225COT03	Embedded Systems for Communication with AI	PCC	3	0	0	3	3
4	225COT04	AI in Signal and Image Processing	PCC	3	0	0	3	3
5	225COEXX	Professional Elective I	PEC	3	0	0	3	3
6	225COEXX	Professional Elective II	PEC	3	0	0	3	3
7	225COAXX	Audit Course-II*	AU	2	0	0	2	0
PRACTICAL								
8	225COP07	Wireless Communication Systems Laboratory	PCC	0	0	2	2	1
9	225COP08	Embedded System Design Laboratory	EEC	0	0	2	2	1
Total				20	0	4	24	20

*Audit course is optional

SEMESTER III

S.NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
THEORY								
1	325COT01	Optical Communication and Networking	PCC	3	0	0	3	3
2	325COEXX	Professional Elective III	PEC	3	0	0	3	3
3	325COEXX	Professional Elective IV	PEC	3	0	0	3	3
4	325COOXX	Open Elective	OEC	3	0	0	3	3
PRACTICAL								
1	325COP05	Term Paper Writing and Seminar	EEC	0	0	2	2	1
2	325COP06	Dissertation Phase – I	EEC	0	0	12	12	6
Total				12	0	14	26	19

SEMESTER IV

S.NO	COURSE CODE	COURSE NAME	CATEGORY	L	T	P	TOTAL CONTACT PERIODS	CREDITS
PRACTICAL								
1	425COP01	Dissertation Phase – II	EEC	0	0	24	24	12
Total				0	0	24	24	12

PROFESSIONAL ELECTIVES I & II

S.NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	225COE01	Electromagnetic Interference and Compatibility	PEC	3	0	0	3	3
2	225COE02	WDM Optical Networks	PEC	3	0	0	3	3
3	225COE03	High Speed Switching and Networking	PEC	3	0	0	3	3
4	225COE04	Wavelets and Subband Coding	PEC	3	0	0	3	3
5	225COE05	Signal Integrity in High-Speed Design	PEC	3	0	0	3	3
6	225COE06	Advanced Satellite Communication and Navigation systems	PEC	3	0	0	3	3
7	225COE07	Multimedia Compression Techniques	PEC	3	0	0	3	3
8	225COE08	Cognitive Radio	PEC	3	0	0	3	3
9	225COE09	Speech and Audio Signal Processing	PEC	3	0	0	3	3
10	225COE10	mm Wave Communication	PEC	3	0	0	3	3
11	225COE11	Analog and Mixed Signal VLSI Design	PEC	3	0	0	3	3
12	225COE12	Sensor Networks and IoT	PEC	3	0	0	3	3
13	225COE13	Radar Signal Processing	PEC	3	0	0	3	3
14	225COE14	Telecommunication System Modeling and Simulation	PEC	3	0	0	3	3
15	225COE15	Industrial Internet of Things and Industry 4.0	PEC	3	0	0	3	3

PROFESSIONAL ELECTIVES III & IV

S.NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	325COE01	Smart Antennas	PEC	3	0	0	3	3
2	325COE02	VLSI for Wireless Communication	PEC	3	0	0	3	3
3	325COE03	MEMS and NEMS	PEC	3	0	0	3	3
4	325COE04	Analysis and Design of Planar Transmission Lines	PEC	3	0	0	3	3
5	325COE05	Ultra-Wide band Communications	PEC	3	0	0	3	3
6	325COE06	Software Defined Radio	PEC	3	0	0	3	3
7	325COE07	Advanced Digital Image Processing	PEC	3	0	0	3	3
8	325COE08	Advanced Wireless Networks	PEC	3	0	0	3	3
9	325COE10	Optical Signal Processing	PEC	3	0	0	3	3
10	325COE11	Ad Hoc Network	PEC	3	0	0	3	3
11	325COE12	Remote Sensing	PEC	3	0	0	3	3
12	325COE13	Advanced Antenna Design	PEC	3	0	0	3	3
13	325COE14	Image Processing and Video Analytics	PEC	3	0	0	3	3
14	325COE15	Communication Protocols in Automotive Systems	PEC	3	0	0	3	3

AUDIT COURSES (AC)

S.NO	COURSE CODE	COURSE TITLE	CATEGORY	PERIODS PER WEEK			TOTAL CONTACT PERIODS	CREDITS
				L	T	P		
1	X25COA01	English for Research Paper Writing	AC	2	0	0	2	0
2	X25COA02	Disaster Management	AC	2	0	0	2	0
3	X25COA03	Constitution of India	AC	2	0	0	2	0
4	X25COA04	நற்றமிழ் இலக்கியம்	AC	2	0	0	2	0

OPEN ELECTIVES (OE) FROM OTHER DEPARTMENTS

S.No	Course Code	Course Title	Category	PERIODS PER WEEK			TOTAL CONTACT PERIODS	UN SDG MAPPING	CREDITS
				L	T	P			
1	325COO01	Energy Auditing and management	OEC	3	0	0	3	4,7,12,13	3
2	325COO02	HVDC and FACTS Controllers	OEC	3	0	0	3	4,7,9	3
3	325COO03	Artificial Intelligence	OEC	3	0	0	3	4,9	3
4	325COO04	Design of Hybrid and Electric vehicles	OEC	3	0	0	3	4,7,13	3
5	325COO05	Cybersecurity	OEC	3	0	0	3	4,9,16	3
6	325COO06	Power Electronics for Renewable Energy Systems	OEC	3	0	0	3	4,7,9,13	3
7	325COO07	Machine Learning and Deep Learning	OEC	3	0	0	3	4,9	3
8	325COO08	Design Thinking	OEC	3	0	0	3	4,9	3
9	325COO09	Energy Conservation and Management in Domestic Sectors	OEC	3	0	0	3	4,7,12,13	3

Allocation of Credits:

Semester	I	II	III	IV
Credits	21	20	19	12
Total	72			

SUMMARY

S.No	SUBJECT AREA	CREDITS PER SEMESTER				CREDITS TOTAL	WEIGHTAGE
		I	II	III	IV		
1.	FC	4				4	5.55%
2.	PCC	14	13	3		30	41.66%
3.	PEC		6	6		12	16.66%
4.	OEC			3		3	4.16%
5.	EEC		1	7	12	20	27.77%
6.	RMC	3				3	4.16%
7.	Non Credit/ Audit Course	✓	✓				
	TOTAL CREDIT	21	20	19	12	72	100%