M.Tech (ECE) with specialization in Wireless Communication

PROGRAMME OUTCOMES:

PO1: An ability to independently carry out research /investigation and development work to solve practical problems

PO2: An ability to write and present a substantial technical report/document

PO3: Students should be able to demonstrate a degree of mastery over the area as per the specialization of the program.

PROGRAMME SPECIFIC OUTCOMES:

PSO1: Students will be able to analyze and develop models, tools and techniques to solve complex problems in wireless communication systems.

PSO2: Students will be able to demonstrate research, entrepreneurial skills and ethical principles.

M.Tech ECE with specialization in Wireless Communications Programme w.e.f. 2020-21 Batch

FIRST SEMESTER

Sl. No.	Course Code	Title	Contact Hours				Credits
			L	T	P	Total	
1.	17M11EC118	Advanced Digital Signal Processing	3	-	-	3	3
2.	20M41EC117	Advanced Digital Communication Systems	3	-	-	3	3
3.		DE-I	3	-	-	3	3
4.		DE-II	3	-	-	3	3
5.		DE –III	3	-	-	3	3
6.	18M11GE111	Research Methodology and Intellectual Property Rights	2			2	2
7.	20M45EC111	Advanced Communication Systems Lab -1	-		6	6	3
		TOTAL				23	20

SECOND SEMESTER

Sl. No.	Course Code	Title	Contact Hours				Credits
			L	T	P	Total	
1.	17M12EC125	Detection & Estimation Theory	3	-	-	3	3
2.	20M41EC119	MIMO-OFDM for Wireless Communications	3	-	-	3	3
3.		DE-IV	3	-	-	3	3
4.		DE – V	3	-	-	3	3
5.		Audit-I	2	-	-	2	Qualifying
6.	17M11EC120	Project Based Learning - I				4	2
7.	20M45EC112	Advanced Communication Systems Lab -2	-	-	6	6	3
		TOTAL				24	17

THIRD SEMESTER

Sl. No.	Course Code	Title	L	T	P	Total	Credits
		Open Electives	3			3	3
1.	17M17EC218	Seminar & Term Paper **OR** Earn credits by transfer eg. MOOCs, Course Work at another Institute, Supervised Study				4	4
2	17M15EC114	Project Based Learning - II				8	4
3.	17M17EC219/ 17M17EC220/ 17M17EC221	Dissertation /Industrial Project / Entrepreneurial Project				8	4
		Audit-II	2			2	Qualifying
		TOTAL				25	15

FOURTH SEMESTER

Sl. No.		Title	L	T	P	Total	Credits
1.	17M17EC222/ 17M17EC223/ 17M17EC224	Dissertation /Industrial Project/ Entrepreneurial Project				32	16
		TOTAL				32	16

TOTAL CREDITS:68

Courses for Audit-I and II:

1. English for Research Paper Writing
2. Disaster Management
3. Sanskrit for Technical Knowledge
4. Value Education
5. Constitution of India
6. Pedagogy Studies
7. Stress Management by Yoga
8. Personality Development through life enlightenment skills

Subjects for Open Electives:
1. Business Analytics
2. Industrial Safety
3. Operations Research
4. Cost Management of Engineering Projects
5. Composite Materials
6. Waste to Energy
7. IOT Architecture and Protocols

Departmental Electives:

1. Advanced Wireless and Mobile Communication
2. Advanced Optical Communications
3. Selected Topics in Wireless Communications
4. Information Theory and Coding
5. Advanced RF and Microwave Engineering
6. Photonics Materials & Devices for Communications
7. Estimation over Distributed Networks
8. Software Defined Radio and Cognitive Radio Network
9. Millimetre wave Technology
10. Statistical Signal Processing