# **M.**Tech Electronics and Communication Engineering

# FIRST SEMESTER

Sl.	<b>Course Code</b>	Title	<b>Contact Hours</b>			Credits	
No			L	T	P	Total	
1.	17M11EC118	Advanced Digital Signal	3	-	-	3	3
		Processing					
2.	20M41EC117	Advanced Digital	3	-	-	3	3
		Communication Systems					
3.		DE-I	3	-	-	3	3
4.		DE-II	3	-	-	3	3
5.	18M11GE111	Research Methodology and	2	-	-	2	2
		Intellectual Property Rights					
6.	20M35EC111	Advanced Signal Processing	-	-	2	2	1
		Lab (MATLAB/PYTHON)					
7.	20M45EC111	Advanced Communication			2	2	1
		Systems Lab-1					
8	20M55EC113	Microelectronics and IOT Lab-1			2	2	1
		TOTAL				20	17

# SECOND SEMESTER

Sl.	<b>Course Code</b>	Title	Contact Hours			Credits	
No			L	T	P	Total	
1.	17M12EC125	Detection & Estimation Theory	3	-	-	3	3
2.	20M41EC119	MIMO-OFDM for Wireless Communications	3	-	-	3	3
3.		DE-III	3	-	-	3	3
4.		DE – IV	3	-	-	3	3
5.		DE-V	3	-	-	3	3
6.		Audit-I	2	-	-	2	Qualifying
7.	17M11EC120	Project Based Learning – I				4	2
8.	20M45EC112	Advanced Communication Systems Lab -2	-	-	6	6	3
		TOTAL				27	20

#### THIRD SEMESTER

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

#### **FOURTH SEMESTER**

Sl.	<b>Course Code</b>	Title	Contact Hours		Credits		
No			L	T	P	Total	
1.	17M17EC222/	Dissertation /Industrial				32	16
	17M17EC223/	Project/Entrepreneurial					
	17M17EC224	Project					
		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 Protocol

### **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. Estimation over Distributed Networks
- 7. Software Defined Radio and Cognitive Radio Network
- 8. Millimeter wave Technology
- 9. Statistical Signal Processing
- 10. Introduction to IoT System Design
- 11. Introduction to machine Learning