



School of Computational Intelligence

Department of Engineering & Technology

B.Tech – Electronics & Communication Engg

I Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BTEC1101	Introduction to Electronics and Commu. Engg	2	0	0	2	2
2.	BTEC1102	Communication Skills	2	0	0	2	2
3.	BTEC1103	Mathematic-I	3	1	0	4	4
4.	BTEC1104	Physics	3	1	0	4	4
5.	BTEC1105	Fundamentals of Programing	3	0	2	5	4
6.	BTEC1106	Environmental Studies	3	0	0	3	3
TOTAL			16	2	2	20	19

II Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BTEC1201	Mathematics-II	3	1	0	4	4
2.	BTEC1202	Quantum Mechanics and Statistical Mechanics	3	0	2	5	4
3.	BTEC1203	Data Structures	3	1	0	4	4
4.	BTEC1204	Digital Logic Design	3	1	0	4	4
5.	BTEC1205	Ethics &Self Awareness	1	1	0	2	2
6.	BTEC1206	Electrical Science	3	1	0	4	4
TOTAL			16	5	2	23	22

III Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BTEC2101	Mechanical Engineering Drawing	1	0	4	5	3
2.	BTEC2102	Signals and Systems	3	1	0	4	4
3.	BTEC2103	Semiconductor Devices	3	1	2	6	4
4.	BTEC2104	Computer Architecture and Organization	3	1	0	4	4
5.	BTEC2105	Electronic Network Theory	3	1	0	4	4
		TOTAL	13	4	6	23	19

IV Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BTEC2201	Electrical and Electronic Materials	3	1	0	4	4
2.	BTEC2202	Analog Circuits	3	1	0	4	4
3.	BTEC2203	Communication Systems and Techniques	3	1	0	4	4
4.	BTEC2204	Automatic Control Systems	3	0	3	6	4
5.	BTEC2205	Engineering Electromagnetics	3	0	0	3	3
6.	BTEC2206	Digital Electronic Circuits Laboratory	0	0	3	3	2
		TOTAL	15	3	6	24	21

V Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BTEC3101	Principles of Digital Communication	3	1	0	4	4
2.	BTEC3102	Antenna Theory	3	0	0	3	3
3.	BTEC3103	Microwave Engineering	3	0	0	3	3
4.	BTEC3104	Microelectronic Devices, Technology, Circuits Lab	0	0	2	3	1
5.	BTEC3105	Linear IC Applications lab	1	0	2	3	2
6.	BTEC3106	Management Studies Elective Course	3	0	0	3	3
7.	BTEC3107	Technical Communication	0	2	0	2	2
		TOTAL	13	3	4	20	18

VI Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BTEC3201	Digital Signal Processing	3	1	0	4	4
2.	BTEC3202	RF and Mixed Signals Circuits	3	1	0	4	4
3.	BTEC3203	Communication Systems Laboratory	0	0	4	4	2
4.	BTEC3204	Microwave Laboratory	0	0	4	4	2
5.	BTEC3205	Open Elective Course	3	0	0	3	3
6.	BTEC3206	Dept Elective Course-I	3	0	0	3	3
7.	BTEC3207	Educational Tour	0	-	-		0
TOTAL			12	0	8	22	18

VII Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BTEC4101	Departmental Elective Course-II	3	0	0	3	3
2.	BTEC4102	Departmental Elective Course-III	3	0	0	3	3
3.	BTEC4103	Minor Specialization Course-I/ Departmental Honours Course-I	3	1	0	4	4
4.	BTEC4104	Minor Specialization Course-II/ Departmental Honours Course-II	3	1	0	4	4
5.	BTEC4105	Training Seminar	0	2	0	2	2
6.	BTEC4106	B. Tech. Project	0	0	3	3	4
TOTAL			12	4	3	19	20

VIII Semester

Sl.No	Course Code	Course Title	L	T	P	Contact Hrs / Wk	Credits
1.	BTEC4201	Departmental Elective Course-IV	3	0	0	3	3
2.	BTEC4202	Departmental Elective Course-V	3	0	0	3	3
3.	BTEC4203	Minor Specialization Course-III/ Departmental Honours Course-III	3	1	0	4	4
4.	BTEC4204	Minor Specialization on Course- IV/ Departmental Honours Course-IV	3	1	0	4	4
5.	BTEC4205	B. Tech. Project (contd. From 7 th semester)	0	0	12	12	8
TOTAL			12	2	12	26	22

TOTAL NO. OF CREDITS = 159

List of courses for Minor Specialization in Electronics and Communication Engineering

1.	Digital Logic Design	4 credits
2.	Semiconductor Devices	4 credits
3.	Network Theory	4 credits
4.	Signals and Systems	4 credits
5.	Analog Circuits	4 credits
6.	Communication Systems and Techniques	4 credits
7.	Engineering Electromagnetics	4 credits
8.	Principles of Digital Communication	4 credits
9.	Microwave Engineering	3 credits*
10.	Digital Signal Processing	3 credits*

* Maximum one 3-credit course can be chosen.

List of Elective Courses :

1.	Detection and Estimation Theory
2.	Information and Coding Theory
3.	Wireless Communication System
4.	Radar Signal Processing
5.	Microwave and Millimeter Wave Circuits
6.	Compact Modelling of Semiconductor Devices
7.	Digital VLSI Circuit Design
8.	Digital System Design
9.	Foundations of Semiconductor Device Physics
10.	Analog VLSI Circuit Design
11.	VLSI Mixed Signal Circuits
12.	Nanoscale Devices
13.	VLSI Physical Design
14.	MEMS and NEMS
15.	Adaptive Signal Processing Techniques
16.	Wireless Technologies: 5G and Beyond
17.	Introduction to Compressed Sensing
18.	Advanced Wireless Communication
19.	RF Receiver Design