

**UNIVERSITY SCHOOL
OF
INFORMATION AND COMMUNICATION TECHNOLOGY
DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

COURSE STRUCTURE

**B.Tech. (ELECTRONICS & COMMUNICATION ENGINEERING)
Batch: 2018-2022**



**GAUTAM BUDDHA UNIVERSITY
GAUTAM BUDH NAGAR, GREATER NOIDA**

SEMESTER I

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	MA101	Engineering Mathematics-I	3	1	0	4	C1
2	PH102	Engineering Physics	3	1	0	4	C2
3	EE102	Basic Electrical Engineering	3	1	0	4	C3
4	ME101	Engineering Mechanics	3	1	0	4	SCE1
5	ES101	Environmental Science	2	0	0	2	OE1
6	EN101	English Proficiency	2	0	0	2	OE2
7	PH104	Engineering Physics Lab	0	0	2	1	P1
8	EE104	Basic Electrical Engineering Lab	0	0	2	1	P2
9	EN151	Language Lab	0	0	2	1	P3
10	ME102	Workshop Practices	1	0	2	2	P4
11	GP	General Proficiency	Non Credit				GP
Total Hours and Credits			17	4	8	25	

SEMESTER II

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	MA102	Engineering Mathematics-II	3	1	0	4	C6
2	CY101	Engineering Chemistry	3	1	0	4	C7
3	CS101	Fundamentals of Computer Programming	3	1	0	4	C8
4	EC101	Basic Electronics Engineering	3	1	0	4	GE1
5	BS101	Human Values and Buddhist Ethics	2	0	0	2	E1
6	CE103	Engineering Graphics	0	0	2	2	P5
7	CY103	Engineering Chemistry Lab	0	0	2	1	P6
8	CS181	Computer Programming Lab	0	0	2	1	P7
9	EC181	Basic Electronics Engineering Lab	0	0	2	1	P8
10	GP	General Proficiency	Non Credit				GP
Total Hours and Credits			14	4	8	23	

SEMESTER III

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	MA201	Engineering Mathematics-III	3	1	0	4	C10
2	EC221	Fundamental of Digital Electronic Circuits	3	1	0	4	C11
3	EC223	Network Analysis	3	1	0	4	C12
4	EC225	Introduction to Signal and Systems	3	1	0	4	C13
5	EC227	Analog Electronic Circuits	3	1	0	4	C14
6	EC271	Analog Electronic Circuits Lab	0	0	2	1	P9
7	EC273	Digital Electronics Circuits Lab	0	0	2	1	P10
8	EC275	Network Analysis Lab	0	0	2	1	P11
9	EC277	PCB Design Lab	0	0	2	1	P12
10	GP	General Proficiency	Non Credit				GP
Total Hours and Credits			15	5	8	24	

SEMESTER IV

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	EC202	Analog Communication	3	1	0	4	C15
2	EC224	Linear Integrated Circuits	3	1	0	4	C16
3	EC226	Microprocessors	3	1	0	4	C17
4	EC228	Electromagnetic Field Theory	3	1	0	4	C18
5	IT207	Data Structures	3	1	0	4	C19
6	EC272	Communication Lab	0	0	2	1	P13
7	EC274	Microprocessors Lab	0	0	2	1	P14
8	EC276	Analog Integrated Circuits Lab	0	0	2	1	P15
9	IT285	Data Structures Lab	0	0	2	1	P16
10	GP	General Proficiency	Non Credit				GP

Total Hours and Credits	15	5	8	24	
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SEMESTER V

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	EC321	Micro-controller and Embedded Systems	3	1	0	4	C20
2	EC323	Digital Communication	3	1	0	4	C21
3	EC325	Antenna & Wave Propagation	3	1	0	4	C22
4	EC327	Control System	3	1	0	4	C23
5		Elective 1	3	0	0	3	E1
6	EC371	Control System Lab	0	0	2	1	P17
7	EC373	Digital Communication Lab	0	0	2	1	P18
8	EC375	Micro-controller and Embedded Systems Lab	0	0	3	2	P19
9	EC377	Antenna & Wave Propagation Lab	0	0	2	1	P20
10	GP	General Proficiency	Non Credit				GP
Total Hours and Credits			15	4	9	24	

SEMESTER VI

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	EC320	Microwave and Radar Engineering	3	1	0	4	C24
2	EC322	Digital Signal Processing and Applications	3	1	0	4	C25
3	EC324	Fundamentals of Microelectronics	3	1	0	4	C26
4	EC326	Data Communication Network	3	0	0	3	C27
5	EC328	IC Fabrication Technology	3	0	0	3	C28
6		Elective 2	3	0	0	3	E2
7	EC372	Microwave and Radar Engineering Lab	0	0	2	1	P21
8	EC374	Digital Signal Processing and Applications	0	0	2	1	P22
9	EC376	Simulation Lab	0	0	2	1	P23

10	GP	General Proficiency	Non Credit				GP
Total Hours and Credits			18	3	6	24	

SEMESTER VII

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	EC421	Wireless Communication	3	1	0	4	P24
2	EC423	Fiber Optic Communication	3	0	0	3	P25
3	EC425	VLSI Design	3	0	0	3	P26
4		Elective 3	3	0	0	3	E3
5		Elective 4	3	0	0	3	E4
6	EC471	Fiber Optic Communication Lab	0	0	2	1	P24
7	EC473	VLSI Design Lab	0	0	2	1	P25
8	EC491*	Industrial Training	0	0	6	3	I1
9	EC493	Minor Project	0	0	8	4	P27
10	GP	General Proficiency	Non Credit				GP
Total Hours and Credits			15	1	18	25	

* Industrial Training after 6 semester, it is compulsory for minimum 4 weeks to each students.

It's evaluation will done in the end of semester -7.

SEMESTER VIII

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	EC492	Major Project/Internship	0	0	50	25	IT/I2
2	GP	General Proficiency	Non Credit				GP
Total Hours and Credits			0	0	50	25	

ELECTIVES

S.No.	Course Code	Course Name	L	T	P	Credits	Types
1	noc20-cs63	Hardware modeling using verilog	3	0	0	3	E1
2	noc20-cs70	Programming, Data Structures And Algorithms Using Python	3	0	0	3	E1
3	noc20-cs73	Introduction to Machine Learning	3	0	0	3	E1
4	noc20-cs92	Big Data Computing	3	0	0	3	E1
5	noc20-ee59	Applied Optimization for Wireless, Machine Learning, Big Data	3	0	0	3	E2
6	noc20-cs69	Introduction to Industry 4.0 and Industrial Internet of Things	3	0	0	3	E2
7	noc20-ee78	Peer To Peer Networks	3	0	0	3	E2
8	noc20-ee83	Image Signal Processing	3	0	0	3	E2
9	noc20-ee98	Introduction to Embedded System Design	3	0	0	3	E2
10	noc20-cs72	Data Science for Engineers	3	0	0	3	E3
11	noc20-me88	Fundamentals Of Artificial Intelligence	3	0	0	3	E3
12	CS318	Computer Security	3	0	0	3	E3
13	noc20-de11	Introduction to Robotics	3	0	0	3	E3
14		Television Engineering	3	0	0	3	E4
15		Mobile Communication	3	0	0	3	E4
16		Satellite Communication	3	0	0	3	E4
17	noc20-ee59	Applied Optimization for Wireless, Machine Learning, Big Data	3	0	0	3	E4
18	noc20-ee97	Power Electronics	3	0	0	3	E4
18	noc20-ee56	Fabrication Techniques for MEMs-based sensors : clinical perspe	3	0	0	3	E4
19	noc20-ee58	Principles of Signal Estimation for MIMO/ OFDM Wireless Comm	3	0	0	3	E4
20	noc20-ma47	Mathematical Modelling: Analysis and Applications	3	0	0	3	E4
21	noc20-ma40	Scientific Computing using Matlab	3	0	0	3	E4

GRAND TOTAL OF CREDITS = 194