

**Curriculum of B.Tech - Electronics and Communication Engineering
with specialization in Design and Manufacturing (EDM)**

Semester 1				
Course Name	I	P	C	Category
Calculus	3	0	3	BSC
Engineering Mechanics	3	0	3	BSC
Computational Engineering	3	0	3	BEC
Concepts in Engineering Design	3	0	3	DES
English for Communication	2	0	2	HMC
Earth, Environment & Design	2		P/F	DES
Engineering Skills Practice	0	3	2	BEC
Materials & Mechanics Practice	0	3	2	BSC
Computational Engineering Practice	0	3	2	BEC
Engineering Graphics	1	3	3	DES
Total	17	12	23	
Semester 2				
Course Name	I	P	C	Category
Differential Equations	3	0	3	BSC
Engineering Electromagnetics	3	0	3	BSC
Science and Engineering of Materials	3	0	3	BEC
Basic Electrical & Electronics Engineering	3	0	3	BEC
Design History	2	0	2	DES
Professional Ethics for Engineers	2	0	P/F	HMC
Industrial Design Sketching	0	3	2	BEC
Measurement & Data Analysis Practice	0	3	2	BSC
Engineering Electromagnetics Practice	0	3	2	BSC
Design Realization	0	3	2	DES
	16	12	22	
Semester 3				
Course Name	I	P	C	Category
Linear Algebra	3	0	3	BSC
Engineering Economics	3	0	3	HMC
Digital Logic Design	3	0	3	PEC
Signals and Systems	3	0	3	PEC
Analog Circuits	3	0	3	PEC
Data Structures and Algorithms Practice	1	3	3	PEC
Analog Circuits Practice	0	3	2	PEC
DLD Practice	0	3	2	PEC
Total	16	9	22	
Semester 4				
Course Name	I	P	C	Category
Probability Theory	3	0	3	BSC
Sociology of Design	3	0	3	DES
Control Systems	3	0	3	PEC
Digital Signal Processing	3	0	3	PEC
Mechanical Design of Electronic Systems	3	0	3	PEC
Power Electronics	3	0	3	PEC
Digital Signal Processing Practice	0	3	2	PEC
Total	18	3	20	

Semester 5				
Course Name	I	P	C	Category
Entrepreneurship and Management Functions	3	0	3	HMC
Micro Processors and Computer Architecture	3	0	3	PEC
Analog and Digital Communication	3	0	3	PEC
Sensing and Instrumentation Practice	1	3	3	PEC
MicroProcessors and MicroControllers Practice	0	3	2	PEC
Communication Systems Practice	0	3	2	PEC
Electrical Drives Practice	1	3	3	PEC
Electronic Manufacturing and Prototyping	1	3	3	PEC
Total	12	15	22	
Semester 6				
Course Name	I	P	C	Category
Design for Quality and Reliability	3	0	3	DES
VLSI Design	3	0	3	PEC
Data Networks	3	0	3	PEC
Elective I	3	0	3	ELE
Elective II	3	0	3	ELE
Embedded System Practice	1	3	3	PEC
VLSI Design Practice	0	3	2	PEC
Product Design Practice	0	3	2	PCD
Total	16	9	22	
Semester 7				
Course Name	I	P	C	Category
Internship	0	-	5	PCD
Free Elective - I	3	0	3	ELE
Design Project	0	6	5	DES
Total	3	6	13	
Semester 8				
Course Name	I	P	C	Category
Elective – III	3	0	3	ELE
Free Elective-II	3	0	3	ELE
Design Elective	3	0	3	DES
Project	0	-	10	PCD
Total	9		19	

Note:

Elective courses such as Designing Intelligent systems, Sustainable Design, Systems thinking for design will be offered as a group to choose in Design Elective

*Internship is for a period of 5 months

Category	Credit Distribution	Credit Distribution in %
BSC	24	15
BEC	16	10
DES	23	14
Elective	15	9
HMC	8	5
PEC	60	36
PCD	17	11
Total	163	

