B. Tech. Electronics and Communication Engineering (Design and Manufacturing) + M. Tech. Signal Processing & Communication System Design (ESD)

(According to 31st Senate meeting held on 1st July 2016)

S.No	Course Name	I	P	C	Category
Semester 1					
1	Calculus	3	0	3	BSC
2	Engineering Mechanics	3	0	3	BSC
3	Computational Engineering/ Basic Electrical & Electronics Engineering	3	0	3	BEC/ BEC
4	Concepts in Engineering Design/ Science and Engineering of Materials	3	0	3	DES/ BEC
5	English for Communication	2	0	2	HMC
6	Earth, Environment & Design/ Professional Ethics for Engineers	2	0	P/F	DES/ HMC
7	Engineering Skills Practice	0	3	2	BEC
8	Computational Engineering Practice/ Measurement & Data Analysis Practice	0	3	2	BEC/ BSC
9	Materials & Mechanics Practice	0	3	2	BSC
10	Engineering Graphics	1	3	3	BEC
	Total Credits			**23**	
Semester 2					
1	Differential Equations	3	0	3	BSC
2	Engineering Electromagnetics	3	0	3	BSC
3	Basic Electrical & Electronics Engineering/ Computational Engineering	3	0	3	BEC/ BEC
4	Science and Engineering of Materials/ Concepts in Engineering Design	3	0	3	BEC/ DES
5	Design History	2	0	2	DES
6	Professional Ethics for Engineers/ Earth, Environment & Design	2	0	P/F	HMC/ DES
7	Engineering Electromagnetics Practice	0	3	2	BSC
8	Measurement & Data Analysis Practice/ Computational Engineering Practice	0	3	2	BSC/ DES
9	Industrial Design Sketching	0	3	2	DES
10	Design Realization	0	3	2	DES
	Total Credits			**22**	
Semester 3					
1	Linear Algebra	3	0	3	BSC
2	Systems Thinking for Design	2	0	2	DES
3	Engineering Economics	2	0	2	HMC
4	Digital Logic Design	3	0	3	PEC
5	Signals and Systems	3	0	3	PEC
6	Analog Circuits	3	0	3	PEC
7	Digital Logic Design practice	0	3	2	PEC
8	Analog Circuits Practice	0	3	2	PEC
	Total Credits			**20**	

Semester 4					
1	Probability Theory	3	0	3	BSC
2	Designing Intelligent Systems	2	0	2	DES
3	Sociology of Design	2	0	2	HMC
4	Control Systems	3	0	3	PEC
5	Digital Signal Processing	3	0	3	PEC
6	Power Electronics	3	0	3	PEC
7	Electrical Drives Practice	1	3	3	PEC
8	Data Structures and Algorithms Practice	1	3	3	PEC
9	Digital Signal Processing Practice	0	3	2	PEC
	Total Credits			**24**	
Semester 5					
1	Sustainable Design	2	0	2	DES
2	Entrepreneurship and Management Functions	2	0	2	HMC
3	Information Theory and Coding	3	0	3	PEC
4	Microprocessors and Computer Architecture	3	0	3	PEC
5	Analog and Digital Communication	3	0	3	PEC
6	Sensing and Instrumentation Practice	0	3	2	PEC
7	Microprocessors and Microcontrollers Practice	0	3	2	PEC
8	Analog and Digital Communication Practice	0	3	2	PEC
9	Electronic Manufacturing and Prototyping	1	3	3	PEC
	Total Credits			**22**	
Semester 6					
1	Design for Quality and Reliability	2	0	2	DES
2	Product Management	2	0	2	HMC
3	Advanced Digital Signal Processing	3	0	3	PEC
4	Data Communication Networks	3	0	3	PEC
5	Elective-I	3	0	3	ELE
6	Elective-II	3	0	3	ELE
7	Advanced Digital Signal Processing Practice	0	3	2	PEC
8	Data Communication Networks Practice	0	3	2	PEC
9	Product Design Practice	0	3	2	DES
	Total Credits			**22**	
Semester 7					
1	Data Analytics	2	0	2	HMC
2	Mechanical Design of Electronic Systems	3	0	3	PEC
3	Advanced Digital Communications and Coding	3	0	3	PEC
4	RF and Microwave Circuit Design	3	0	3	PEC
5	Elective-III	3	0	3	ELE
6	Free Elective-I	3	0	3	ELE
7	Advanced Digital Communications and Coding Practice	0	3	2	PEC
8	RF and Microwave Circuit Design Practice	0	3	2	PEC
	Total Credits			**21**	

Semester 8					
1	Innovation Management	2	0	2	HMC
2	Detection and Estimation Theory	3	0	3	PEC
3	Wireless Communication	3	0	3	PEC
4	Elective-IV	3	0	3	ELE
5	Elective-V	3	0	3	ELE
6	Free Elective-II	3	0	3	ELE
7	Wireless Communication Practice	0	3	2	PEC
8	DSP System Design Practice	1	3	3	PEC
9	Comprehensive Viva-voce			2	PEC
	Total Credits			**24**	
Semester 9					
1	Elective-VI	3	0	3	PEC
2	Internship			5	PCD
3	Design Project			6	DES
	Total Credits			**14**	
Semester 10					
1	Project			18	PCD
	Total Credits			**18**	
				210	