

Curriculum for B.Tech

Electronics and Communication Engineering

From The Academic Year 2025

(Approved in Senate 60)



Indian Institute of Information Technology Design and Manufacturing, Kancheepuram

Chennai-600 127

Semester 1					
Category	Course Name	L	T	P	C
BSC	Calculus	3	1	0	4
BSC	Physics for Engineers	3	0	2	4
BEC	Basic Electrical Engineering	3	1	0	4
ITC	Problem Solving and Programming	3	0	2	4
DSC	Concepts in Engineering Design	2	0	2	3
BEC	Engineering Skills Practice	0	0	2	1
HMC	Effective Language and Communication Skills	1	0	2	2
HMC	NSO/NCC/SSG/NSS/YOGA	0	0	2	P/F
					22.0
Semester 2					
Category	Course Name	L	T	P	C
BSC	Differential Equations	3	1	0	4
SEC	Dept. Specific Science Elective I	3	0	0	3
BEC	Engineering Graphics and Modeling	1	1	2	3
ITC	Data Structures and Algorithms	3	0	2	4
DSC	Design Realization	2	0	2	3
PCC	Network Analysis and Synthesis	3	1	0	4
HMC	Earth, Environment and Design	1	0	0	P/F
					21.0
Semester 3					
Category	Course Name	L	T	P	C
SEC	Dept. Specific Science Elective II (Linear Algebra)	3	0	0	3
ITC	Introduction to AI with Python	2	0	2	3
PCC	Electronic Devices and Circuits	3	1	0	4
PDC	Digital Circuit Design	3	1	0	4
PCC	Signals and Systems	3	1	0	4
PDC	Digital Circuit Design Practice	0	1	2	2
PCC	Electronic Devices and Circuits Practice	0	1	2	2
HMC	Indian Constitution and Essence of Indian Traditional Knowledge	1	0	0	P/F
					22.0
Semester 4					
Category	Course Name	L	T	P	C
SEC	Dept. Specific Science Elective III (Probability and Statistics)	3	0	0	3
ITC	Data Science for Electronics Engineers	2	0	2	3
PCC	Digital Signal Processing	3	1	0	4
PDC	Analog Circuit Design	3	1	0	4
PCC	Engineering Electromagnetics	3	1	0	4
PDC	Microprocessors and Embedded System Design	2	1	2	4
PDC	Analog Circuit Design Practice	0	1	2	2
HMC	Human Values and Stress Management	1	0	0	P / F
					24.0

Semester 5					
Category	Course Name	L	T	P	C
HMC	Entrepreneurship and Management Functions	1	0	2	2
PCC	Control Systems	3	1	0	4
PCC	Communication Systems	3	1	0	4
PDC	Antenna Theory and Design	3	0	2	4
PCC	Digital Signal Processing Practice	0	1	2	2
PEC	Program Elective 1	3	1	0	4
HMC	Professional Ethics and Organizational Behaviour	1	0	0	P/F
					20.0
Semester 6					
Category	Course Name	L	T	P	C
PCD	Product Design and Prototyping	0	0	2	1
PCC	Digital Communication	3	1	0	4
PCC	RF and Microwave Engineering	3	0	2	4
PDC	VLSI Design	3	0	2	4
PCC	Communication Systems Practice	0	1	2	2
PEC	Program Elective 2	3	1	0	4
ELC	Open Elective 1	3	0	0	3
HMC	Professional Communication	1	0	2	2
HMC	Intellectual Property Rights	1	0	0	P/F
					24.0
	Summer				
PCD	Summer Internship MID MAY to MID JULY				P/F
Semester 7					
Category	Course Name	L	T	P	C
PEC	Program Elective 3	3	0	0	3
ELC	Open Elective 2	3	0	0	3
ELC	Open Elective 3	3	0	0	3
ELC	Open Elective 4	3	0	0	3
ELC	Open Elective 5	3	0	0	3
PCD	Comprehensive Exam				P/F
HMC	Invited Expert Lectures*	0	0	0	P/F
	* 6 Expert lectures to be attended from Sem 1 to Sem 7				15.0
Semester 8					
Category	Course Name	L	T	P	C
PCD	B.Tech. Project (BTP)	0	0	18	9
					9.0

9 Credits for the BTP can be earned by any of the following:

1. Fully In-house BTP at the institute.
2. BTP IITs/IISc/IISERs/TIFR/ISI/DRDO/ISRO, etc if 148 credits are completed by the end of 7th semester.
3. Three Program Elective courses, each with a minimum of three credit, in lieu of BTP.
4. Industry Internship/Training in lieu of BTP at the company selected through the Institute Placement Cell and if 148 credits are completed by the end of 7th semester.

Semester wise Credit Distribution	Credits									
Category	S1	S2	S3	S4	S5	S6	S7	S8	Total	%
Basic Science Course (BSC)	8	4	0	0	0	0	0	0	12	8
Science Elective Course (SEC)	0	3	3	3	0	0	0	0	9	5.7
Basic Engineering Course (BEC)	5	3	0	0	0	0	0	0	8	5.1
Design Course (DSC)	3	3	0	0	0	0	0	0	6	3.8
IT Skill Course (ITC)	4	4	3	3	0	0	0	0	14	8.9
Program Core Course (PCC)	0	4	10	8	10	10	0	0	42	26.8
Program Design Course(PDC)	0	0	6	10	4	4	0	0	24	15.3
Program Elective Course (PEC)	0	0	0	0	4	4	3	0	11	7.0
Elective Course (ELC)	0	0	0	0	0	3	12	0	15	9.6
Humanities and Management Course (HMC)	2	0	0	0	2	2	0	0	6	3.8
Professional Career Development (PCD)	0	0	0	0	0	1	0	9	10	6.4
Total	22	21	22	24	20	24	15	9	157	100
	22	43	65	89	109	133	148	157	157	