

**Electronics and Communication Engineering**  
**4 year B.Tech Curricula**  
**First semester (B1)**

S.No	Sub Code	Subject	Contact hours	Credits
1	10B11PD111	Presentation and Communication Skills	3	3
2	10B11MA111	Mathematics-I	4	4
3	10B11PH111	Physics-I	4	4
4	10B11EC111	Electrical Circuit Analysis	4	4
5	10B11CI111	Introduction to Computers and Programming	4	4
6	10B17PH171	Physics Lab-I	2	1
7	10B17EC171	Electrical Circuits Lab	2	1
8	10B17CI171	Computer Programming Lab	4	2
9	10B19GE199	Institutional Orientation	2	0
		Total	29	23
10	10B11PD199	English (Audit course)*	2	0

**Note: English\* (\*English will be offered as an audit course for students with less than 60% marks)**

**Electronics and Communication Engineering**  
**4 year B.Tech Curricula**  
**Second Semester (B2)**

S.No	Sub Code	Subject	Contact hours	Credits
1	10B11PD211	Group and Cooperative Processes	3	3
2	10B11MA211	Discrete Mathematics	4	4
3	10B11PH211	Physics-II	4	4
4	10B11EC211	Basic Electronic Devices and Circuits	4	4
5	10B11CI211	Data Structures	4	4
6	10B17PH271	Physics Lab-II	2	1
7	10B17EC271	Basic Electronics Lab	2	1
8	10B17CI271	Data Structures and Computer Programming Lab	4	2
9	10B19EC299	Departmental Orientation	2	0
		<b>Total</b>	<b>29</b>	<b>23</b>

**Electronics and Communication Engineering**  
**4 year B.Tech Curricula**  
**Third semester (B3)**

S.No	Sub Code	Subject	Contact hours	Credits
1	10B11PD311	Economics	3	3
2	10B11MA201	Mathematics-II	4	4
3	10B11EC311	Electrical Machines and Instruments	4	4
4	10B11EC301	Signals and Systems	4	4
5	10B11EC312	Analogue Electronics	4	4
6	10B17EC371	Electrical Machines and Instruments Lab	2	1
7	10B17EC307	Signals and Systems Lab	2	1
8	10B17EC372	Analogue Electronics Lab	2	1
9	10B28CI408	Multimedia Development Lab I	2	1
		<b>Total</b>	<b>27</b>	<b>23</b>

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**4 year B.Tech Curricula**  
**Fourth semester (B4)**

S.No	Sub Code	Subject	Contact hours	Credits
1	10B11PD411	Financial Management	3	3
2	10B11MA411	Probability Theory and Random Processes	4	4
3	10B1NEC733	Control System	4	4
4	10B11EC401	Digital Electronics	4	4
5	10B11EC412	Analogue Communications	4	4
6	10B11GE411	Environmental Studies	3	3
7	10B17EC471	Devices and Circuit simulation Lab	2	1
8	10B17EC407	Digital Electronics Lab	2	1
9	10B17EC472	Analogue Communications Lab	2	1
10	10B17CI307	Unix Programming Lab	2	1
		<b>Total</b>	<b>30</b>	<b>26</b>

**Electronics and Communication Engineering**  
**4 year B.Tech Curricula**  
**Fifth semester (B5)**

S.No	Sub Code	Subject	Contact hours	Credits
1	10B11PD511	Social and Legal Issues	3	3
2	10B11EC511	Digital Communications	4	4
3	10B11EC512	Digital Signal Processing	4	4
4	10B11CI401	Microprocessors and Controllers	4	4
5	10B11EC513	Electromagnetic Engineering	4	4
6	10B17EC571	Digital Communications Lab	2	1
7	10B17EC572	Digital Signal Processing Lab	2	1
8	10B17CI407	Microprocessors and Controllers Lab	2	1
9	10B17EC573	Electromagnetics Lab	2	1
10	10B19EC591	Minor Project I	10	5
		<b>Total</b>	<b>37</b>	<b>28</b>

**Electronics and Communication Engineering**  
**4 year B.Tech Curricula**  
**Sixth semester (B6)**

S.No	Sub Code	Subject	Contact hours	Credits
1	10B11PD611	Project Management	3	3
2	10B11EC611	Telecommunication Networks	4	4
3	10B11EC612	VLSI Technology and Applications	4	4
4	10B11PH611	Material Sciences	4	4
5	10B11CI614	Object Oriented Systems and Programming	4	4
6	10B17EC671	Telecommunication Networks Lab	2	1
7	10B17EC672	VLSI Lab	2	1
9	10B17CI674	Object Oriented Systems and Programming Lab	4	2
10	10B19GE698	Industrial Training		0
11	10B19EC691	Minor Project II	10	5
		<b>Total</b>	<b>37</b>	<b>28</b>

**Electronics and Communication Engineering**  
**4 year B.Tech Curricula**  
**Seventh semester (B7)**

S.No	Sub Code	Subject	Contact hours	Credits
1		HSS Elective-I	3	3
2		DE-I	3	3
3		DE-II	3	3
4		DE-III	3	3
5	10B11EC791	Project Part I	20	10
		<b>Total</b>	<b>32</b>	<b>22</b>

**List of courses for HSS Elective-I**

S.No	Sub Code	Subject	Contact hours	Credits
1	10B1NPD732	Entrepreneurial Development	3	3
2	10B1NPD734	Customer Relationship Management	3	3
3	10B1NPD733	Managing and Marketing Technology	3	3
4	13B1NHS731	Technology and Culture	3	3
5	10B1NPD735	Indian Financial System	3	3

**Typical List of some Departmental Elective Subjects for DE-I, DE-II and DE-III**

1	10B1NCI732	Computer Graphics		
2	10B1NCI736	Information Retrieval and Data Mining		
3	12B2NCI753	Human Computer Interaction		
4	11B1NCI731	Soft Computing		
5	12B2NCI751	Theory of Automata and Compiler Design		
6	10B1NBT731	Biocomputing and Applications		
7	10B1NEC733	Control Systems		
8	10M1NEC231	Antenna Theory and Design		
9	10B1NEC731	Information Theory and Applications		
10	10B1NEC732	Mobile Communications		
11	10B1NEC833	Digital Hardware Design		
12	11B1NEC731	Essentials of VLSI Testing		
13	12B1NEC731	RF and Microwave Engineering		
14	10B1NPH731	Nano Science and Technology		
15	10B1NPH732	Introduction to Quantum Information Theory		
16	10B1NPH733	Electronic ceramics		
17	10B1NMA831	Applied Numerical Methods		
18	10B1NMA731	Applied Linear Algebra		

**Note:** Full list of Departmental Electives and Subjects of other Departments which may be permitted for DE-I, DE-II, DE-III, DE-IV etc., are given in the Consolidated List of Subjects.

**Electronics and Communication Engineering  
4 year B.Tech Curricula  
Eighth Semester (B8)**

S.No	Sub Code	Subject	Contact hours	Credits
1		HSS Elective-II	3	3
2		DE-IV	3	3
3		DE-V	3	3
4		DE-VI	3	3
5	10B19EC891	Project Part II	20	10
		Total	32	22

<b>List of courses for HSS Elective-II</b>				
S.No	Sub Code	Subject	Contact hours	Credits
1	10B13HS831	Knowledge Management	3	3
2	10B13HS832	Quality Issues in Engineering	3	3
3	12B1NHS831	Industrial Sociology	3	3
4	13B1NHS831	Organizational Psychology	3	3
<b>Typical List of some Departmental Elective Subjects for DE-I, DE-II and DE-III</b>				
1	10B1NMA831	Applied Numerical Methods		
2	11B1NMA831	Operations Research		
3	10B1NPH831	Photonics and Applications		
4	12B1NPH834	Plasma Physics		
5	10B1NBT833	Intellectual Property Rights & Bioethics		
6	10B1NBT835	Machine Learning Tools in Bioinformatics		
7	10B1NEC731	Information Theory and applications		
8	10B1NEC831	Optical Communication		
9	10B1NEC833	Digital Hardware Design		
10	10B1NCI831	Image Processing		
11	12B2NCI752	Mobile Computing		

S.No	Sub Code	Subject	Contact hours	Credits
1		HSS Elective-I	3	3
2		DE-I	3	3
3		DE-II	3	3
4		DE-III	3	3
5	10B11EC791	Project Part I	20	10
		<b>Total</b>	<b>32</b>	<b>22</b>

**List of courses for HSS Elective-I**

S.No	Sub Code	Subject	Contact hours	Credits
1	10B1NPD732	Entrepreneurial Development	3	3
2	10B1NPD734	Customer Relationship Management	3	3
3	10B1NPD733	Managing and Marketing Technology	3	3
4	13B1NHS731	Technology and Culture	3	3
5	10B1NPD735	Indian Financial System	3	3

**Typical List of some Departmental Elective Subjects for DE-I, DE-II and DE-III**

1	10B1NCI732	Computer Graphics
2	10B1NCI736	Information Retrieval and Data Mining
3	12B2NCI753	Human Computer Interaction
4	11B1NCI731	Soft Computing
5	12B2NCI751	Theory of Automata and Compiler Design
6	10B1NBT731	Biocomputing and Applications
7	10B1NEC733	Control Systems
8	10M1NEC231	Antenna Theory and Design
9	10B1NEC731	Information Theory and Applications
10	10B1NEC732	Mobile Communications
11	10B1NEC833	Digital Hardware Design
12	11B1NEC731	Essentials of VLSI Testing
13	12B1NEC731	RF and Microwave Engineering
14	10B1NPH731	Nano Science and Technology
15	10B1NPH732	Introduction to Quantum Information Theory
16	10B1NPH733	Electronic ceramics
17	10B1NMA831	Applied Numerical Methods
18	10B1NMA731	Applied Linear Algebra

**Note:** Full list of Departmental Electives and Subjects of other Departments which may be permitted for DE-I, DE-II, DE-III, DE-IV etc., are given in the Consolidated List of Subjects.

**Electronics and Communication Engineering**  
**4 year B.Tech Curricula**  
**Eighth Semester (B8)**

S.No	Sub Code	Subject	Contact hours	Credits
1		HSS Elective-II	3	3
2		DE-IV	3	3
3		DE-V	3	3
4		DE-VI	3	3
5	10B19EC891	Project Part II	20	10
		<b>Total</b>	<b>32</b>	<b>22</b>

<b>List of courses for HSS Elective-II</b>				
S.No	Sub Code	Subject	Contact hours	Credits
1	10B13HS831	Knowledge Management	3	3
2	10B13HS832	Quality Issues in Engineering	3	3
3	12B1NHS831	Industrial Sociology	3	3
4	13B1NHS831	Organizational Psychology	3	3
<b>Typical List of some Departmental Elective Subjects for DE-I, DE-II and DE-III</b>				
1	10B1NMA831	Applied Numerical Methods		
2	11B1NMA831	Operations Research		
3	10B1NPH831	Photonics and Applications		
4	12B1NPH834	Plasma Physics		
5	10B1NBT833	Intellectual Property Rights & Bioethics		
6	10B1NBT835	Machine Learning Tools in Bioinformatics		
7	10B1NEC731	Information Theory and applications		
8	10B1NEC831	Optical Communication		
9	10B1NEC833	Digital Hardware Design		
10	10B1NCI831	Image Processing		
11	12B2NCI752	Mobile Computing		