SEMESTER WISE COURSE STRUCTURE

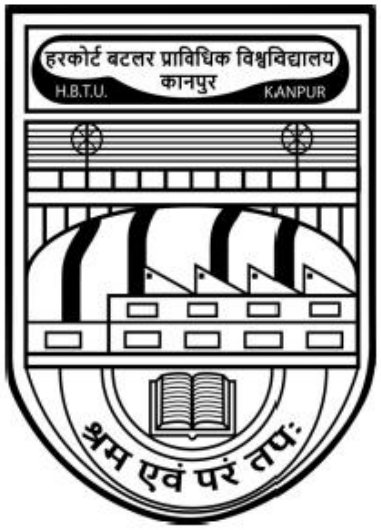
&

EVALUATION SCHEME

MASTER OF TECHNOLOGY

ELECTRONICS ENGINEERING

(Effective from Session 2020-21 for New Entrants)



HARCOURT BUTLER TECHNICAL UNIVERSITY

KANPUR-208002 (UP)-INDIA

VISION AND MISSION OF THE DEPARTMENT

Vision

Department of Electronics Engineering aims to deliver Technical Education in the field of Electronics and Communication Engineering, for producing Engineers and Technologists who are happy, healthy and competent professionals, motivated to serve the society through research & innovation.

Mission

1. To educate and train the students with state-of-the-art in Electronics and Communication Engineering.
2. To prepare the students who are fit for meeting the requirements and challenges of the Industry right at the time of their graduation by evolving a sustainable Industry-University interaction system for this.
3. To upgrade the teaching standards through continued efforts toward improvement of the qualification and expertise of the teachers as well as supporting staff.
4. To create awareness amongst the students towards socio environmental technologies by offering related courses and organizing seminars/workshops on these topics in the university and by encouraging participation in similar activities at other places.
5. To expand research and development activities in the frontier areas related to Electronics and Communication.
6. To include the aspect of integration of environmental balance and human values in the curriculum.
7. To provide academic support to other technical institutions at state & national level through the process of networking.
8. To start social service programs like education for masses, particularly using the enhanced means of communication.

VISION AND MISSION OF THE UNIVERSITY

VISION

"To achieve excellence in technical education, research and innovation".

MISSION

1. Imparting Knowledge to develop analytical ability in science and technology to serve the industry and society at large.
2. Equip and enable students with conceptual, technical and managerial skills to transform the organization and society.
3. Inculcating entrepreneurial philosophy and innovative thinking to promote research, consultancy and institutional social responsibility.
4. Serving people, society and nation with utmost professionalism, values and ethics to make development sustainable and quality of life.

Program Educational Objectives (PEOs)

Program graduates, within three years from their graduation will

PEO 1: have knowledge of basic and applied sciences, so as to apply the necessary competence for technically sound, economically feasible and socially acceptable solutions of real life complex engineering problems.

PEO 2: be fit for meeting the requirements and challenges of industries, research and academic institutions both at the national and International level, by applying expertise gained in area of electronics and communication engineering.

PEO 3: be professionally competent with excellent communication and management skills along with being enterprising professionals and responsible citizens capable of delivering their services individually as well as in a collaborative framework.

Structure of the Curriculum
Semester Wise Course Structure & Evaluation Scheme
For M.Tech. in Electronics & Communication Engineering

I Semester

Sr. No	Course Type	Subject code	Course title	Credits	Sessional Marks				ESM	Total Marks
					MSE	TA	Lab	Total		
1.	PCC	EET-551	Introduction to Signal Analysis	5(3-2-0)	30	20	-	50	50	100
2.	PCC	EET-553	Advanced Semiconductor Devices	5(3-2-0)	30	20	-	50	50	100
3.	PCC	EET-555	Neural Network	4(3-1-0)	30	20	-	50	50	100
4.	PCC	EET-557	Estimation and Detection Theory	4(3-1-0)	30	20	-	50	50	100
Total Credits				18						

II Semester

Sr. No	Course Type	Subject code	Course title	Credits	Sessional Marks				ESM	Total Marks
					MSE	TA	Lab	Total		
1.	PCC	EET-552	Digital Communication	4(3-1-0)	30	20	-	50	50	100
2.	PCC	EET-554	Optical Communication	4(3-1-0)	30	20	-	50	50	100
3.	PEC	EET-	PEC-1	4(3-1-0)	30	20	-	50	50	100
4.	PEC	EET-	PEC-2	4(3-1-0)	30	20	-	50	50	100
Total Credits				16						

III Semester

Sr. No	Course Type	Subject code	Course title	Credits	Sessional Marks				ESM	Total Marks
					MSE	TA	Lab	Total		
1.	PCC	EET-651	Advanced Digital Signal Processing	4(3-1-0)	30	20	-	50	50	100
2.	PEC	EET-	PEC-3	4(3-1-0)	30	20	-	50	50	100
3.	Seminar	EET-695	-	2(0-0-4)	-	50	-	50	50	100
4.	Dissertation	EET-697	-	4(0-0-8)	-	50	-	50	50	100
Total Credits				14						

IV Semester

Sr. No	Course Type	Subject code	Course title	Credits	Sessional Marks				ESM	Total Marks
					MSE	TA	Lab	Total		
1.	Dissertation	EET-698	-	12(0-0-24)	-	50	-	50	50	100
Total Credits				12						

Elective-I (PEC-1)

Sl. No.	Course Code	Name of the course	Credit (L-T-P)
1.	EET-556	Space Communication	4(3-1-0)
2.	EET-558	Organic Electronics	4(3-1-0)
3.	EET-560	RF Systems	4(3-1-0)
4.	EET-562	Digital System Design	4(3-1-0)
5.	EET-564	Advanced Microprocessor	4(3-1-0)
6.	EET-566	Communication Theory	4(3-1-0)
7.	EET-568	Analog VLSI Circuits	4(3-1-0)

Elective-II (PEC-2)

Sl. No.	Course Code	Name of the course	Credit (L-T-P)
1.	EET-570	Antenna Analysis & Synthesis	4(3-1-0)
2.	EET-572	VLSI System Design	4(3-1-0)
3.	EET-574	Wireless Communication	4(3-1-0)
4.	EET-576	Information Theory & Coding	4(3-1-0)
5.	EET-578	Architecture & Applications of Digital Signal Processors	4(3-1-0)
6.	EET-580	Embedded Systems	4(3-1-0)

Open Elective (PEC-3)

Sl. No.	Old Course Code	Name of the course	Credit (L-T-P)
1.	EET-653	Telecommunication & Switching	4(3-1-0)
2.	EET-655	Image Processing	4(3-1-0)
3.	EET-657	Data Communication Networks	4(3-1-0)
4.	EET-659	Fuzzy Electronics	4(3-1-0)
5.	EET-661	Photonic Networks	4(3-1-0)
6.	EET-663	VLSI Implementation of Digital Processors	4(3-1-0)
7.	EET-665	Mobile Communications	4(3-1-0)

Table (a) Program curriculum grouping based on course components

Course Component	**Curriculum Content (% of total Credits of the program)**	**Total number of credits**
Program Core Courses(PCC)	30	63
Program Electives Courses (PEC)	12	14
Seminar (S)	02	14
Dissertation (D)	16(04+12)	2+2 = 4
Total	60	

Table (b) Program curriculum grouping based on course components as per semester:
Frequency & Credits

Sem	**PCC**		**PEC**		**Seminar**		**Dissertation**		**Total**
	Credits	No.	Credits	No.	Credit	No.	Credit	No.	Credit
I	5+4+5+4=18	4	-	-	-	-	-	-	18
II	4+4=08	2	4+4=08	2	-	-	-	-	16
III	4	1	4	1	2	1	04	01	14
IV	-	-	-	-	-	-	12	01	12
Tot	**30**	**07**	**12**	**3**	**02**	**1**	**16**	**1**	**60**