B N M Institute of Technology

An Autonomous Institution under VTU. Approved by AICTE

Department: Electronics and Communication Engineering

Scheme of Teaching and Examination-Autonomous - (Effective from Academic year 2024-25) Batch:2023-2027

Third Semester B.E (ECE)

Sl. No	Course Type	Course Code	Course Title	Teaching Dept	Teaching Hours /Week						Examination		
					L	T	P	J	Hours/ Week	Credits	CIA Marks	SEA Marks	Total Marks
1	MAT	23MAC131	Fourier Series, Transforms, Numerical and Statistical Techniques	MAT	2	2	–	–	4	3	50	50	100
2	PCC	23ECE132	Network Analysis	ECE	2	2	–	–	4	3	50	50	100
3	PCI	23ECE133	Data structures using C	ECE	2	–	2	–	4	3	50	50	100
4	PCI	23ECE134	Analog Electronics Circuits	ECE	3	–	2	–	5	4	50	50	100
5	PCI	23ECE135	Digital System Design using Verilog	ECE	3	–	2	–	5	4	50	50	100
6	PBL	23ECE136	Advanced Python Programming on RaspberryPi	ECE	–	–	2	2	4	2	50	50	100
7	UHV	23CIP137	Constitution of India and Professional Ethics	HSS	1	–	–	–	1	1	100	–	100
8	AEC	23SFT138	Soft Skill -1	HSS	–	2	–	–	2	1	100	–	100
9	IPL	23ECE139	Innovative Project Lab -1	ECE	–	–	–	2	2	1	100	–	100
TOTAL CONTACT HOURS					13	6	8	4	31	22	600	300	900

L-Theory lecture, T – Tutorial, P – Practical, J – Project NCMC- Non Credit Mandatory Course

CIA: Continuous Internal Assessment, SEA: Semester End Assessment

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Scheme of Teaching and Examination-Autonomous - (Effective from Academic year 2024-25) Batch:2023-2027

Fourth Semester B.E (ECE)

Sl. No	Course Type	Course Code	Course Title	Teaching Dept	Teaching Hours /Week						Examination		
					L	T	P	J	Hours/ Week	Credits	CIA Marks	SEA Marks	Total Marks
1	MAT	23MAC141	Complex Analysis, Probability and Randam Process	MAT	2	2	–	–	4	3	50	50	100
2	PCC	23ECE142	Digital Signal Processing	ECE	3	2	–	–	5	4	50	50	100
3	PCI	23ECE143	Control Systems	ECE	1	2	2	–	3	3	50	50	100
4	PCI	23ECE144	ARM Microcontroller and its Applications	ECE	3	–	2	–	5	4	50	50	100
5	PCI	23ECE145	Analog and Digital Communication	ECE	3	–	2	–	5	4	50	50	100
6	PBL	23ECE146	Signal Processing Applications using MATLAB	ECE	–	–	2	2	4	2	50	50	100
7	AEC	23SFT147	Soft Skill -2	HSS	–	2	–	–	2	1	100	–	100
8	INT	23ECE148	Internship - I / Innovative Project Lab - 2	ECE	–	–	2	2	4	2	100	–	100
TOTAL CONTACT HOURS					12	8	10	4	32	23	500	300	800

B N M Institute of Technology

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Department: Electronics and Communication Engineering

Scheme of Teaching and Examination-Autonomous - (Effective from Academic year 2025-26) Batch:2023-2027

Fifth Semester B.E. (ECE)

Sl. No	Course Type	Course Code	Course Title	Teaching Department	Teaching Hours /Week					Credits	Examination		
					L	T	P	J	Hours/ Week		CIA Marks	SEA Marks	Total Marks
1	PCC	23ECE151	Digital Image Processing	ECE	3	–	–	–	3	3	50	50	100
2	PCC	23ECE152	Electromagnetic Waves and Transmission Lines	ECE	2	2	–	–	4	3	50	50	100
3	PCI	23ECE153	Computer Networks and Security	ECE	3	–	2	–	5	4	50	50	100
4	PCI	23ECE154	Real Time Operating System	ECE	2	–	4	–	6	4	50	50	100
5	PBL	23ECE155	Artificial Intelligence and Machine Learning applications	ECE	–	–	2	2	4	2	50	50	100
6	POE	23ECE156X	Open Elective Course - I	ECE	3	–	–	–	3	3	50	50	100
7	AEC	23ECE157	Employability skills (Technical) -1	ECE	–	2	–	–	2	1	100	–	100
8	INT	23ECE158	Internship - II	ECE	–	–	–	–	0	1	100	–	100
			TOTAL CONTACT HOURS		13	4	8	2	27	21	500	300	800

Open Electives offered from ECE :

1. 23ECE1561 -Smart Sensor Technologies	2. 23ECE1562 - Mobile Communication and Processor
3. 23ECE1563 - Real Time Operating System	4. 23ECE1564 - Embedded System using Raspberry-Pi

Summer Internship - II to be carried out during the vacation between IV and V Semester

Summer Internship - II (23ECE158): All the students admitted shall have to undergo a mandatory summer internship of 04 weeks. Summer Internship shall include Inter / Intra Institutional activities. A Viva-voce examination shall be conducted during IV semesters and the prescribed credit shall be included in IV semesters. The internship shall be considered as a head of passing and shall be considered for the award of degree. Those, who do not take up / complete the internship shall be declared fail and shall have to complete during subsequent examination after satisfying the internship requirements. (The faculty coordinator or mentor has to monitor the students' internship progress and interact to guide them for the successful completion of the internship.)

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Scheme of Teaching and Examination-Autonomous - (Effective from Academic year 2025-26) Batch:2023-2027

Sixth Semester B.E. (ECE)

Sl. No	Course Type	Course Code	Course Title	Teaching Dept	Teaching Hours /Week					Credit	Examination		
					L	T	P	J	Hours/ Week		CIA Marks	SEA Marks	Total Marks
1	PCC	23ECE161	Engineering Project Management and Finance	ECE	2	–	–	–	2	2	50	50	100
2	PCI	23ECE162	Microwave and Antennas	ECE	3		2	–	5	4	50	50	100
3	PCI	23ECE163	VLSI Design	ECE	3	–	2	–	5	4	50	50	100
4	PBL	23ECE164	Java Programming and its Applications	ECE	0	–	2	2	4	2	50	50	100
5	PEC	23ECE165X	Professional Elective Course - 1	ECE/MBA	3	–	–	–	3	3	50	50	100
6	PEC	23ECE166X	Professional Elective Course -2 (MOOC/NPTEL Course)	Online Platform/ MBA	3	–	–	–	3	3	50	50	100
7	OEC	23ECE167X	Open Elective Course - II	ECE	3	–	–	–	3	3	50	50	100
8	AEC	23ECE168	Employability skills (Technical) -2	ECE	–	–	2	–	2	1	100	–	100
TOTAL CONTACT HOURS					17	–	8	2	27	22	450	350	800

Open Electives offered by ECE Department

1. 23ECE1671 Nanotechnology	3. 23ECE1673 Robotics and Automation
2. 23ECE1672 Wearable Devices	4. 23ECE1674 Automotive Electronics

Professional Electives -1

1	23ECE1651	Information Theory and Coding
2	23ECE1652	Nanoelectronics
3	23ECE1653	Wearable Technology
4	23ECE1654	Artificial Neural Network
5	23ECE1655	Computer Architecture and Organization

Professional Electives-2

(MOOC - Subjected to offering by NPTEL*/Infosys Spring Board**)

1	23ECE1661	Satellite Communication
2	23ECE1662	VLSI Physical Design*
3	23ECE1663	Embedded System Design*
4	23ECE1664	Applied Accelerated Artificial Intelligence
5	23ECE1665	Data Base Management System Part1**