



An Autonomous Institution Affiliated to Visvesvaraya Technological University (VTU) Belagavi Approved by
All India Council for Technical Education (AICTE), New Delhi, Recognized by Govt. of Karnataka,
UG Programs Accredited by National Board of Accreditation (NBA) : CSE, ECE & ISE
www.epcet.edu.in

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

CURRICULUM

Batch 2025 – 2029 (Autonomous)

Undergraduate Bachelor of Engineering Program- B.E.

Outcome Based Education (OBE) &

Choice Based Credit System (CBCS)

III AND IV SEM

2026-27

About the Institute

East Point College of Engineering and Technology (EPCET) was established in the year 1999 by M. G. Charitable Trust, Bangalore. The College is located in the eastern part of Bangalore at Bidarahalli, Virgonagar Post, off old Madras Road. It is at a 5 km distance from K R Puram, Bangalore. The College is affiliated to Visvesvaraya Technological University (VTU), Belagavi.

The college was granted autonomous status in the year 2024 as per the guidelines of the University Grants Commission (UGC). The college was accredited with NAAC A grade in the year 2024, recognizing its commitment to quality education and institutional excellence. All the Undergraduate B.E. and Post Graduate programs M. Tech offered at EPCET have the approval of AICTE. The College at present offers programs in Computer Science & Engineering, CSE (Artificial Intelligence and Machine Learning), CSE (Data Science), CSE (IOT&CSBT), Information Science & Engineering, Electronics & Communication Engineering, and Civil Engineering leading to BE degree of VTU. The college is also offering two M. Tech programs- one each in Mechanical Engineering and Civil Engineering. At EPCET, more than 2500 students are studying in various programs, and there are more than 145 faculty members with about 25% of them having Ph.D. Qualifications. Faculty members, in addition to teaching and routine administrative work, undertake research. Several faculty members collaborate with prestigious national laboratories such as LRDE-DRDO and publish their research findings in refereed, peer-reviewed journals. The eligible programs were accredited by NBA during 2008-2011 and 2023-2026.

All the students of the final year undergo internships in reputed industries and more than 80% of the students get placement offer on campus in companies like VMware, Cognizant, Infosys, Accenture, IBM, Covance, and so on. The departments offer various competency and skill development courses to prepare the students for the job market. In addition to this Institute has a unit “Industry Institute Integrated Learning Program (IILP)” with CISCO, AWS, Salesforce, Google Cloud, ARM, UiPath, Microsoft and Texas Instruments. These courses are conducted and students are encouraged and supported to obtain certification. A significant number of Alumni have assumed important positions in industry and government. A few alumni have set up their own start-ups in and around Bangalore and a considerable number have settled down overseas. The Institute has sufficient number of classrooms, Tutorial rooms, seminar halls, well-equipped laboratories, and a library with more than 50000 books. The campus is completely Wi-Fi enabled. In the laboratories, industry-standard software is made available for students to learn and practice

The college encourage faculty members to attend seminars, conferences organized by other Colleges and industries. Also, faculty have been given the freedom to organize seminars, conferences, and faculty development programs annually. Every year at least 5-6 seminars/ conferences/ FDP are conducted. Seminar halls are available within the college for organizing Student Development programmes and conferences. The College has entered into MoU with a number of industries and foreign Universities.

The campus has Medical College, a Superspecialist hospital with over 1200 beds, Pharmacy college, Two Nursing Institutes, a Higher Education Institute and a PU Institute. Students have opportunities to interact with students of medical, pharmacy nursing, management, commerce, and Science. Students have transport, hostel and sports facilities. There are more than 15 students’ clubs for students to participate in various activities and experience. The College has set an ambitious vision and it is working continuously to adapt newer concepts in teaching, learning, and student assessments to realize its vision through working on its mission. The College aims to increase the students’ satisfaction level with a holistic approach to education.

About the Department

The Department of Electronics and Communication Engineering at East Point College of Engineering and Technology (EPCET), was established in 1999 and the Institute is affiliated with VTU, Belagavi. Department offers a four-year B.E. program with 120 student in-take. Its mission is to provide quality technical education to aspiring students encompasses a broad spectrum of technical areas including Communication systems, VLSI, Embedded Systems, IoT, Signal processing, etc. The department also boasts a VTU-recognized research center, well-equipped labs, and a dedicated faculty involved in research and teaching. The department has received funding from various private and government sectors like LRDE-DRDO, VGST, KSCST. Graduates have secured admissions to prestigious universities and excelled in leading IT companies

About the program

Year of Establishment	1999-2000
Name of the Program offered	BE- Electronics & Communication Engineering
Intake	180

Institute Vision and Mission

Vision

The East Point College of Engineering and Technology aspires to be a globally acclaimed institution, recognized for excellence in engineering education, applied research, and nurturing students for holistic development.

Mission

M1: To create Engineering graduates through quality education and to nurture innovation, creativity and excellence in teaching, learning and research.

M2: To serve the technical, scientific, economic and societal developmental needs of our communities.

M3: To induce integrity, teamwork, critical thinking, personality development, and ethics in students and to lay the foundation for lifelong learning.

Department Vision and Mission

Vision

The Department aspires to be a centre of excellence in Electronics and Communication Engineering to develop competent and ethical professionals through holistic development.

Mission

M1: To impart quality education and provide a conducive environment for innovation and Research.

M2: To develop skills to meet the scientific, technological and socio-economic needs.

M3: To inculcate professional ethics, team work, leadership qualities and lifelong learning.

Program Educational Objectives (PEOs):

PEO 1: Graduates will have successful Professional career with the acquired knowledge in Electronics and Communication Engineering to analyse, design, develop and implement electronic systems.

PEO 2: Graduates will apply their Engineering skills to develop ingenious solutions for real world problems.

PEO 3: Graduates will exhibit leadership qualities, ethical values and adapt to current trends by engaging in lifelong learning.

Program Specific Outcomes (PSOs):

PSO 1: To conceptualise, model, design, simulate, analyse, develop, test Electronics and Communication systems and solve technical problems arising in the field of Electronics and Communication Engineering.

PSO 2: To specialize in the areas of Electronics and Communication Engineering such as Analog and Digital Electronics, Communication, Signal processing, VLSI systems, Embedded Systems and IOT.

PSO 3: To demonstrate building and testing of Electronics and Communication systems and evaluate their performance and efficiency using appropriate tools and techniques.

Semester wise Credit Breakdown for B.E Degree Curriculum Batch 2025-2029

Sl. No	Category	Credits Per Semester								Total Credits	Credits in %
		I	II	III	IV	V	VI	VII	VIII		
1	HSMC		1			3				4	3%
2	PLC/ETC	7								7	4%
3	BSC/ASC	8	8	4						20	12%
4	IPCC			4	4	4	4	4		20	12%
5	PCC		4	6	9	4	3	8		34	21%
6	PEC					7	4	4		15	9%
7	OEC						3	4		7	4%
8	PCCL			1	1	1	1	1		5	3%
9	ESC	3	6	3	3					15	9%
10	AEC/ SEC/ SDC/ UHV	2	1	2	3	1	3			12	7%
11	INT								5	5	3%
12	PROJ						2	2	12	16	10%
13	SK			1	1	1	1	1		5	3%
Total		20	20	20+1	20+1	20+1	20+1	23+1	17	160+5	100%

III Semester

**BE in Electronics and Communication Engineering
Scheme of Teaching III Semester
Outcome Based Education and Choice Based Credit System (CBCS)
Effective from the academic year Batch - 2025-2029**

Sl. No	Course	Course Code	Course Title	Teaching Department (TD)/ Board	Teaching Hours /Week			TW	TH/ S	Examination			
					Theo ry	Tutor ial	Pract ical			CIE Ma rks	SE E Ma rks	Total Marks	Credits
					L	T	P						
1	ASC	25EC31	Engineering Mathematics - III	Maths	3	2	0	50	120	50	50	100	4
2	PCC	25EC32	Network Analysis	ECE	3	0	0	48	90	50	50	100	3
3	PCC	25EC33	Electronic Principles and Circuits	ECE	3	0	0	48	90	50	50	100	3
4	IPCC	25EC34	Digital System Design using Verilog	ECE	3	0	2	50	120	50	50	100	4
5	PCCL	25ECL35	Analog and Digital Electronics Lab	ECE	0	0	2	02	30	50	50	100	1
6	ESC/PLC	25EC36X	ESC / PLC	ECE	3	0	0	48	90	50	50	100	3
7	AEC	25EC37X	Ability Enhancement Course - III	ECE	0	0	2	02	30	50	50	100	1
8	NCMC	25NS38/ 25PE38/ 25YO38	NSS/ PE/ YOGA	NSS/ YOG A/ PE coordi nator	0	0	0	28	28	100	-	100	PP
9	SDC	25SC39	Community Project (Project based Learning) / Societal Project		0	0	0	30	30	50	50	100	1
Total									628	500	400	900	20
10	NCMC	25MDIP310	Mathematics course for Lateral Entry Students	Maths Dept	1	0	0	14	28	100	-	100	-
11	SK	25CISK311	Skill Lab-1	ECE	0	0	2	02	30	50	50	100	1
Total									686	650	450	1100	20+1

NOTE: Minimum of 1 subject should have a tutorial component.

TW&SL – Term work

TH/S – Total Hours per semester

Engineering Science Courses

Course Code	Course Title
25EC36A	Applied numerical methods for EC
25EC36B	Computer organization and architecture
25EC36C	Electronic devices
25EC36D	Sensors and instrumentation

Ability Enhancement Courses

Course Code	Course Title
25EC37A	LABVIEW Programming
25EC37B	Embedded C basics
25EC37C	PCB Design
25EC37D	MATLAB Programming

IV Semester

BE in Electronics and Communication Engineering
Scheme of Teaching IV Semester
Outcome Based Education and Choice Based Credit System (CBCS)
Effective from the academic year Batch - 2025-2029

Sl. No	Course	Course Code	Course Title	Teaching Department (TD)/ Board	Teaching Hours /Week			TW	TH/S	Examination			
					Theor y	Tutor ial	Practi cal			CIE Marks	SE E Marks	Tot al Marks	Credits
					L	T	P						
1	PCC	25EC41	Principles of Communication Systems	ECE	3	0	0	48	90	50	50	100	3
2	PCC	25EC42	Basic Signal Processing	ECE	3	0	0	48	90	50	50	100	3
3	PCC	25EC43	Electromagnetic Theory	ECE	3	0	0	48	90	50	50	100	3
4	IPCC	25EC44	Control Systems	ECE	3	0	2	50	120	50	50	100	4
5	PCCL	25ECL45	Analog Communication Lab	ECE	0	0	2	02	30	50	50	100	1
6	BSC/ESC	25EC46X	BSC / ESC	ECE	2	2	0	34	90	50	50	100	3
7	AEC	25EC47X	Ability Enhancement Course -IV	ECE	0	0	2	02	30	50	50	100	1
8	UHV	25UH48	Universal Human Values	Any dept	1	0	0	16	30	50	50	100	1
9	NCMC	25NS49/ 25PE49/ 25YO49	NSS/PE/YOGA	NSS/ YOG A/ PE coordi nator	0	0	0	28	28	100	-	100	PP
10	SDC	25SC410	Environmental Science Project		0	0	0	30	30	50	50	100	1
Total									628	550	450	1000	20
11	NCMC	25MDIP411	Mathematics course for Lateral Entry Students	Maths Dept	1	0	0	14	28	100	-	100	PP
12	SK	25CISK412	Skill Lab-2	ECE	0	0	2	02	30	50	50	100	1
Total									686	700	500	1200	20+1

NOTE: Minimum of 1 subject should have a tutorial component.

TW&SL – Term work

TH/S – Total Hours per semester

Engineering Science Course

Course Code	Course Title
25EC46A	Operating systems
25EC46B	Industrial IOT
25EC46C	Microcontrollers
25EC46D	Data structures using C

Ability Enhancement Courses

Course Code	Course Title
25EC47A	Octave/scilab for signals
25EC47B	Microcontrollers lab
25EC47C	Basics of IOT and its applications
25EC47D	System Verilog



EAST POINT COLLEGE OF ENGINEERING & TECHNOLOGY

An Autonomous Institution Affiliated to Visvesvaraya Technological University (VTU) Belagavi Approved by
All India Council for Technical Education (AICTE), New Delhi, Recognized by Govt. of Karnataka,
UG Programs Accredited by National Board of Accreditation (NBA) : CSE, ECE & ISE
www.epcet.edu.in

V Semester

BE in Electronics and Communication Engineering Scheme of Teaching V Semester Outcome Based Education and Choice Based Credit System (CBCS) Effective from the academic year Batch - 2025-2029

Sl. No	Course	Course Code	Course Title	Teaching Department (TD)/ Board	Teaching Hours /Week			TW	TH/S	Examination			
					Theory	Tutorial	Practical			CIE Marks	SEE Marks	Total Marks	Credits
					L	T	P						
1	HSMC	25EC51	Management and Entrepreneurship Course	ECE	3	0	0	48	90	50	50	100	3
2	PCC	25EC52	Digital Communication	ECE	3	2	0	50	120	50	50	100	4
3	IPCC	25EC53	Digital Signal Processing	ECE	3	0	2	50	120	50	50	100	4
4	PCCL	25ECL54	Digital Communication Lab	ECE	0	0	2	02	30	50	50	100	1
5	PEC	25EC55X	Professional Elective Course-1	ECE	3	0	0	48	90	50	50	100	3
6	PEC	25EC56X	Professional Elective Course-2	ECE	4	0	0	64	120	50	50	100	4
7	NCMC	25ES57	Environmental Studies and E-waste Management		1	0	0	14	28	100	-	100	PP
8	NCMC	25NS58 / 25PE58 / 25YO58	NSS/PE/ YOGA		0	0	0	28	28	100	-	100	PP
9	SDC	25SC59	Hackathon Based Project	ECE	0	0	0	30	30	50	50	100	1
10	SK	25CISK510	Skill Lab-3	ECE	0	0	2	02	30	50	50	100	1
Total									686	600	400	1000	20+1

NOTE: Minimum of 1 subject should have a tutorial component.

TW&SL – Term work

TH/S – Total Hours per semester

Professional Elective Course-1

Course Code	Course Title
25EC55A	FPGA System Design using Verilog
25EC55B	Intelligent Systems and Machine Learning Algorithms
25EC55C	Embedded Programming
25EC55D	Satellite and Optical Communication

Professional Elective Course -2

Course Code	Course Title
25EC56A	Functional Verification using System Verilog
25EC56B	Digital Image Processing
25EC56C	IoT Communication Protocols
25EC56D	Radar Systems

VI Semester

**BE in Electronics and Communication Engineering
Scheme of Teaching VI Semester
Outcome Based Education and Choice Based Credit System (CBCS)
Effective from the academic year Batch - 2025-2029**

Sl. No	Course	Course Code	Course Title	Teaching Department (TD)/ Board	Teaching Hours /Week			TW	TH/ S	Examination			
					Theory	Tutorial	Practical			CIE Marks	SEE Marks	Total Marks	Credits
					L	T	P						
1	PCC	25EC61	VLSI Design and Testing	ECE	3	0	0	48	90	50	50	100	3
2	IPCC	25EC62	Embedded system Design	ECE	3	0	2	50	120	50	50	100	4
3	PCCL	25ECL63	VLSI Design and Testing Lab	ECE	0	0	2	02	30	50	50	100	1
4	PEC	25EC64X	Professional Elective Course-3	ECE	3	2	0	50	120	50	50	100	4
5	AEC	25RM65	Research Methodology & IPR	ECE	3	0	0	48	90	50	50	100	3
6	OEC	25XX66X	Open Elective -1	ECE	3	0	0	48	90	50	50	100	3
7	PROJ	25ECP67	Mini Project	ECE	0	0	0	60	60	100	-	100	2
8	NCMC	25NS68 / 25PE68 / 25YO68	NSS/PE/YOGA		0	0	0	28	28	100	-	100	PP
9	NCMC	25IKS69	IKS		1	0	0	14	28	100	-	100	PP
10	SK	25CISK610	Skill Lab-4	ECE	0	0	2	02	30	50	50	100	1
Total									686	650	350	1000	20+1

NOTE: Minimum of 1 subject should have a tutorial component.

TW&SL – Term work & Self Learning

TH/S – Total Hours per semester

Professional Elective Course-3

Course Code	Course Title
25EC64A	VLSI Physical Design
25EC64B	Biomedical Signal Processing
25EC64C	Real Time Operating Systems
25EC64D	Optical Communication Networks

Open Elective Course-1

Course Code	Course Title
25EC66A	Basic VLSI Design
25EC66B	Electronics Communication Systems
25EC66C	Digital System Design using Verilog
25EC66D	Sensors and Instrumentation

VII Semester

**BE in Electronics and Communication Engineering
Scheme of Teaching VII Semester
Outcome Based Education and Choice Based Credit System (CBCS)
Effective from the academic year Batch - 2025-2029**

Sl. No	Course	Course Code	Course Title	Teaching Departme nt (TD)/ Board	Teaching Hours /Week			TW	TH/ S	Examination			
					The ory	Tut orial	Pract ical			CIE Mar ks	SEE Marks	Total Marks	Credits
					L	T	P						
1	PCC	25EC71	Wireless and Cellular Communication	ECE	4	0	0	64	120	50	50	100	4
2	PCC	25EC72	Microwave Engineering and Antennas Theory	ECE	3	2	0	50	120	50	50	100	4
3	IPCC	25EC73	Computer Networks	ECE	3	0	2	50	120	50	50	100	4
4	PCCL	25ECL74	Microwave Engineering and Antennas Theory Lab	ECE	0	0	2	02	30	50	50	100	1
5	PEC	25EC75X	Professional Elective Course-4	ECE	4	0	0	64	120	50	50	100	4
6	OEC	25XX76X	Open Elective -2	ECE	4	0	0	64	120	50	50	100	4
7	PROJ	25XXP77	Project Work Phase - 1		0	0	0	60	60	100	-	100	2
8	SK	25CISK78	Skill Lab-5	ECE	0	0	2	02	30	50	50	100	1
Total									720	450	350	800	23+1

NOTE: Minimum of 1 subject should have a tutorial component.

TW&SL – Term work

TH/S – Total Hours per semester

Professional Elective Course -4

Course Code	Course Title
24EC75A	ASIC Design
24EC75B	Pattern Recognition
24EC75C	Advanced Networking Using IoT
24EC75D	Wireless LTE 5G& beyond

Open Elective Course-2

Course Code	Course Title
24EC76A	Computer Networks
24EC76B	ARM Microcontroller
24EC76C	Satellite Remote Sensing & GIS
24EC76D	Machine Learning using Python



EAST POINT COLLEGE OF ENGINEERING & TECHNOLOGY

An Autonomous Institution Affiliated to Visvesvaraya Technological University (VTU) Belagavi Approved by
All India Council for Technical Education (AICTE), New Delhi, Recognized by Govt. of Karnataka,
UG Programs Accredited by National Board of Accreditation (NBA) : CSE, ECE & ISE
www.epcet.edu.in

VIII Semester

BE in Electronics and Communication Engineering
Scheme of Teaching VIII Semester
Outcome Based Education and Choice Based Credit System (CBCS)
Effective from the academic year Batch - 2025-2029

Sl. No	Course	Course Code	Course Title	Teaching Department (TD)/ Board	Teaching Hours /Week			TW	TH/S	Examination			
					Theory	Tutorial	Practical			CIE Marks	SEE Marks	Total Marks	Credits
					L	T	P						
1	INT	25INT81	Research / Industrial Internship	ECE	0	0	0	150	150	100	100	200	05
2	PROJ	25ECP82	Project Work Phase – II	ECE	0	0	0	360	360	100	100	200	12
Total									510	200	200	400	17

TW&SL – Term work

TH/S – Total Hours per semester