

LINGARAJ APPA ENGINEERING COLLEGE

SELF ASSESSMENT REPORT(TIER - II) FOR Electronics & Communication Engineering

Part A : Institutional Information

1 Name and Address of the Institution

LINGARAJ APPA ENGINEERING COLLEGE,
Lingaraj Appa Engineering College Survey No. 25, Gornalli, Bidar, Karnataka-585403

2 Type of the Institution:

<input type="radio"/> Deemed to be University	<input type="radio"/> Autonomous
<input type="radio"/> University	<input checked="" type="radio"/> Non-Autonomous (Affiliated)
<input type="radio"/> Institute of National Importance	<input type="radio"/> Any Other(Please Specify)

3 Year of establishment of the Institution:

2011

4 Ownership Status:

<input type="radio"/> Central Government	<input type="checkbox"/> Any Other(Please Specify)
<input type="radio"/> State Government	
<input type="radio"/> Government Aided	
<input checked="" type="radio"/> Self financing	

5 Name and Address of Affiliating University

VISVESVARAYA TECHNOLOGICAL UNIVERSITY BELGAVI

6 Other Academic Institutions of the Trust/Society/Company etc., if any:

Name of Institutions	Year of Establishment	Programs of Study	Location
Godutai Engineering Colleg	2011	UG in Engineering	Gulbarga
Appa Institute of Engg. & Te	2002	UG in Engineering	Gulbarga
Veerappa Nisty Engineeringç	2010	UG in Engineering	Shorapur, Gulbarga
Doddappa Appa Institute fo	1998	PG in Buisness Administrati	Gulbarga
Doddappa Appa Institute fo	1999	PG in Computer Application	Gulbarga
Post Graduate Studies in M	2007	PG in Tourism Administratio	Gulbarga
Sharanbasveshwar Arts Co	1957	PG in Fine Arts	Gulbarga

7 Details of all the programs being offered by the institution:

Program Name	Program Applied level	Year of Start	AICTE approval details	Sanctioned Intake	Increase/decrease in intake	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
Electronics & Communication Engineering	UG	2011	2025	60	Yes	60	Applying first time	--	--		4
Sanctioned Intake for Last Five Years for the Electronics & Communication Engineering											
Academic Year				Sanctioned Intake							
2025-26				60							
2024-25				54							
2023-24				54							
2022-23				54							
2021-22				54							
2020-21				54							
VLSI Design & Embedded Systems	PG	2013	2013	18	No	16	Not eligible for accreditation	--	--		2
Civil Engineering	UG	2011	2011	60	Yes	30	Not eligible for accreditation	--	--	No	4
Sanctioned Intake for Last Five Years for the Civil Engineering											
Academic Year				Sanctioned Intake							
2025-26				30							
2024-25				30							
2023-24				30							
2022-23				60							
2021-22				60							
2020-21				60							
Computer Science and Engineering	UG	2011	2011	60	Yes	120	Not eligible for accreditation	--	--	0	4
Sanctioned Intake for Last Five Years for the Computer Science and Engineering											
Academic Year				Sanctioned Intake							
2025-26				120							
2024-25				120							
2023-24				120							
2022-23				54							
2021-22				54							
2020-21				54							
Mechanical Engineering	UG	2011	2011	60	Yes	30	Not eligible for accreditation	--	--	0	4

Program Name	Program Applied level	Year of Start	AICTE approval details	Sanctioned Intake	Increase/decrease in intake	Current Intake	Accreditation status	From	To	Program for consideration	Program for Duration
Sanctioned Intake for Last Five Years for the Mechanical Engineering											
Academic Year					Sanctioned Intake						
2025-26					30						
2024-25					30						
2023-24					30						
2022-23					60						
2021-22					60						
2020-21					60						
Electrical and Electronics Engineering	UG	2011	2011	60	Yes	60	Not eligible for accreditation	--	--	0	4
Sanctioned Intake for Last Five Years for the Electrical and Electronics Engineering											
Academic Year					Sanctioned Intake						
2025-26					60						
2024-25					54						
2023-24					54						
2022-23					54						
2021-22					54						
2020-21					54						
Artificial Intelligence and Machine Learning	UG	2025	2025	60	No	60	Not eligible for accreditation	--	--	0	4
Machine Design	PG	2013	2013	18	No	16	Not eligible for accreditation	--	--	0	2
Computer Science & Engineering	PG	2013	2013	18	No	16	Not eligible for accreditation	--	--	0	2
MBA	PG	2012	2012	60	Yes	90	Not eligible for accreditation	--	--	0	2
Sanctioned Intake for Last Five Years for the MBA											
Academic Year					Sanctioned Intake						
2025-26					90						
2024-25					60						
2023-24					60						
2022-23					54						
2021-22					54						
2020-21					54						

S No	Level	Discipline	Program
1	Under Graduate	Engineering & Technology	Electronics & Communication Engineering

Table No. A8.2

S No	Name of the Department	Name of the Program	Name of Allied Departments/Cluster	Name of Allied Program
No record exist(s)				

9 Total Number of Faculty Members in Various Departments:

ID	Department Name	Number of faculty members in the Department (UG and PG)											
		2025-26 (CAY)				2024-25 (CAYm1)				2023-24 (CAYm2)			
		No. of Professors	No. of Associate Professors	No. of Assistant Professors	Total faculty members	No. of Professors	No. of Associate Professors	No. of Assistant Professors	Total faculty members	No. of Professors	No. of Associate Professors	No. of Assistant Professors	Total faculty members
1	Electronics and Communication Engineering	1	3	7	11	1	3	7	11	1	2	7	10
2	Computer Science and Engineering	1	1	8	10	1	0	8	9	0	0	11	11
3	Electrical and Electronics Engineering	0	1	7	8	0	0	7	7	0	0	8	8
4	Mechanical Engineering	0	1	8	9	0	0	9	9	0	0	8	8
5	Civil Engineering	0	0	7	7	0	0	9	9	0	0	7	7
6	MBA	1	0	10	11	1	0	7	8	1	1	7	9
7	Artificial Intelligence and Machine Learning	0	0	3	3	0	0	0	0	0	0	0	0

10 Total Number of Engineering Students in Various Departments:

ID	Department Name	Number of students in the Department (UG and PG)		
		2025-26 (CAY)	2024-25 (CAYm1)	2023-24 (CAYm2)
1	Electronics and Communication Engineering	215	200	147
2	Computer Science and Engineering	389	349	281
3	Electrical and Electronics Engineering	167	152	106
4	Mechanical Engineering	81	77	64
5	Civil Engineering	67	78	68
6	Artificial Intelligence and Machine Learning	48	0	0

11 Vision of the Institution:

To be a premier technical institution, imparting excellence for global competency, humanity, ethics and social welfare.

12 Mission of the Institution:

1. To facilitate quality education by moulding the characters of our students with intellectual ability as well as strengths of culture.
2. To provide an exceptionally conducive learning environment that prepares students to think independently and make them responsible citizens.
3. To prepare the students to face the societal challenges and to meet the needs of the stake holders.
4. To nurture industry, institute collaboration leading to competency, enhancement and entrepreneurship.
5. Participative learning in a cross-cultural environment that promotes the learning beyond the classrooms.

13 Contact Information of the Head of the Institution and NBA coordinator, if designated:

Head of the Institution	
Name	Dr. Vinita Patil
Designation	Principal
Mobile No.	8792506036
Email ID	vinita.pratapur@gmail.com

NBA Coordinator, If Designated

PART B: Criteria Summary

Criteria No.	Criteria	Total Marks	Institute Marks
1	OUTCOME-BASED CURRICULUM	120	113.00
2	OUTCOME-BASED TEACHING LEARNING	120	95.00
3	OUTCOME-BASED ASSESSMENT	120	108.00
4	STUDENTS' PERFORMANCE	120	68.93
5	FACULTY INFORMATION	100	63.17
6	FACULTY CONTRIBUTIONS	120	70.37
7	FACILITIES AND TECHNICAL SUPPORT	100	90.00
8	CONTINUOUS IMPROVEMENT	80	60.00
9	STUDENT SUPPORT AND GOVERNANCE	120	110.00
	Total	1000	778

Part B : Criteria Summary

1 OUTCOME-BASED CURRICULUM (120)

Total Marks 113.00

1.1 Vision, Mission and Program Educational Objectives (PEOs) (35)

Vision of the institute	To be a premier technical institution, imparting excellence for global competency, humanity, ethics and social welfare.										
Mission of the institute	<ol style="list-style-type: none"> 1. To facilitate quality education by moulding the characters of our students with intellectual ability as well as strengths of culture. 2. To provide an exceptionally conducive learning environment that prepares students to think independently and make them responsible citizens. 3. To prepare the students to face the societal challenges and to meet the needs of the stake holders. 4. To nurture industry, institute collaboration leading to competency, enhancement and entrepreneurship. 5. Participative learning in a cross-cultural environment that promotes the learning beyond the classrooms. 										
Vision of the Department	The ECE department aims to lead the way in research and higher education while developing innovative solutions to societal problems.										
Mission of the Department	<table border="1"> <thead> <tr> <th>Mission No.</th> <th>Mission Statements</th> </tr> </thead> <tbody> <tr> <td>M1</td> <td>A Centre of excellence for technology, teaching, training and research with the goal of producing elite electronics and communication engineers to benefit society and the country.</td> </tr> <tr> <td>M2</td> <td>To instill a spirit of entrepreneurship, professional ethics and values that meets the needs of society and industry.</td> </tr> <tr> <td>M3</td> <td>To build a technical workforce by regularly planning workshops, expert talks and Industrial Visits.</td> </tr> <tr> <td>M4</td> <td>To facilitate students with opportunities to hone their ethics and leadership potential for their better future.</td> </tr> </tbody> </table>	Mission No.	Mission Statements	M1	A Centre of excellence for technology, teaching, training and research with the goal of producing elite electronics and communication engineers to benefit society and the country.	M2	To instill a spirit of entrepreneurship, professional ethics and values that meets the needs of society and industry.	M3	To build a technical workforce by regularly planning workshops, expert talks and Industrial Visits.	M4	To facilitate students with opportunities to hone their ethics and leadership potential for their better future.
Mission No.	Mission Statements										
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M2	To instill a spirit of entrepreneurship, professional ethics and values that meets the needs of society and industry.										
M3	To build a technical workforce by regularly planning workshops, expert talks and Industrial Visits.										
M4	To facilitate students with opportunities to hone their ethics and leadership potential for their better future.										

1.1.2 State PEOs of the Program (5)

Institute Marks : 5.00

PEO No.	Program Educational Objectives Statements
PEO1	Impart foundational knowledge in electronics and communication engineering that will help them in their future professional endeavours and academic pursuits.
PEO2	Train the students or impart trainees to the students to develop new products and solve engineering challenges that is technically sound and socially acceptable.
PEO3	Encourage multidisciplinary work environment, utilizing their expertise abilities and resources to design, create and develop technologies with inventive and creative solutions to engineering challenges.
PEO4	Graduates are encouraged for learning by acquiring new theories and technical advancements in their domain.
PEO5	Training the graduates to lead and communicate with values of teams in and exhibit good moral behaviour.

1.1.3 Process of Defining Vision, Mission and PEOs (15)

Institute Marks : 15.00

The process of defining the vision & Mission was initiated in the year 2020-21. The draft copy of vision and mission were framed after brainstorming sessions and were finalized in July 2021. The vision and Mission of the department are established by keeping institute vision and mission statements as base. The framing process involved thorough discussions with Principal, HOD, Faculties and collecting information from different Stake holder's like-Management, students, parents, alumni and Industry people. The process is shown in Figure 1.1.3.a.

The following steps were involved in establishing vision and mission

Step 1:	The vision and mission statements of Institute are taken as base.
Step 2:	The draft copy of vision and mission statements were framed through brainstorming sessions of stakeholders. The SWOC analysis by department faculties and recommendations from all stakeholders were considered.
Step 3:	The accepted views were analyzed and reviewed to check the consistency with the institute's vision and mission statements and put forth in the Department Advisory Board meeting for their suggestions.
Step 4:	The suggestions of DAB were adopted and finalized the vision and mission Statements.
Step 5:	The vision and mission statements are subjected to periodic revisions based on external factors and future requirements.

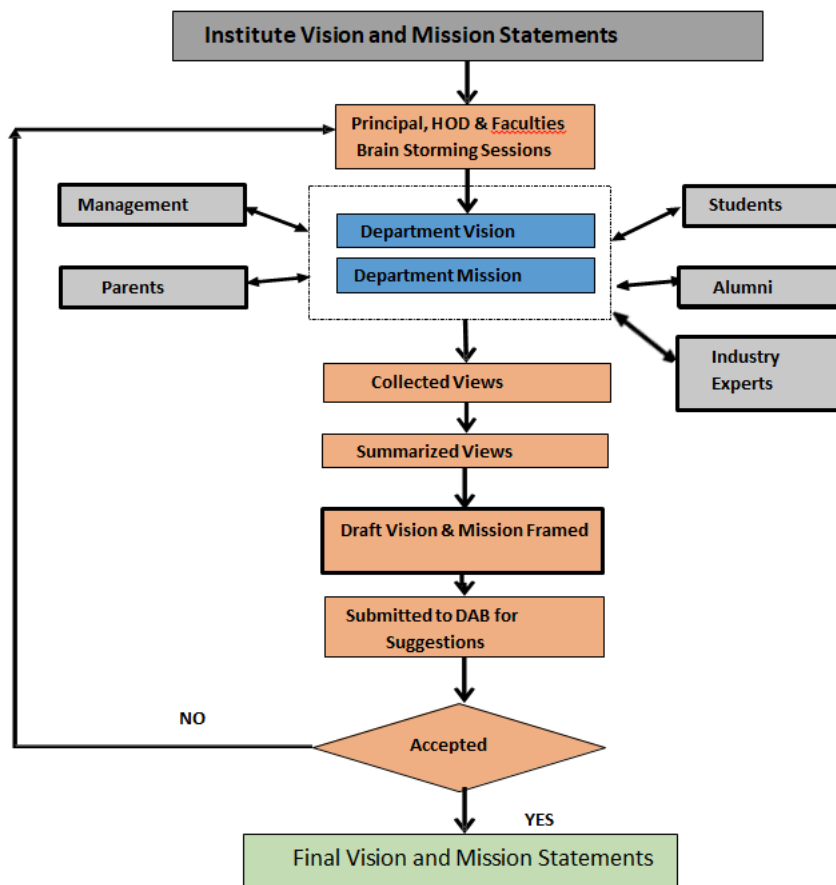


Figure 1.1.3-a: Process for defining Vision and Mission of the Department

Process of formation PEOs:

After formation of vision and mission statements of the department, A series of discussions were conducted among students, Faculty members, parents, alumni, Industry experts, Employers & Management. Collected their suggestions and draft PEOs were framed. The draft PEOs are submitted to DAC for final approval.

Department Advisory Board:

An advisory board consists of Principal, HoD, Program Coordinator, Senior Faculty member and representatives from industry/Academia. The committee evaluates the program quality, effectiveness and purpose of necessary changes.

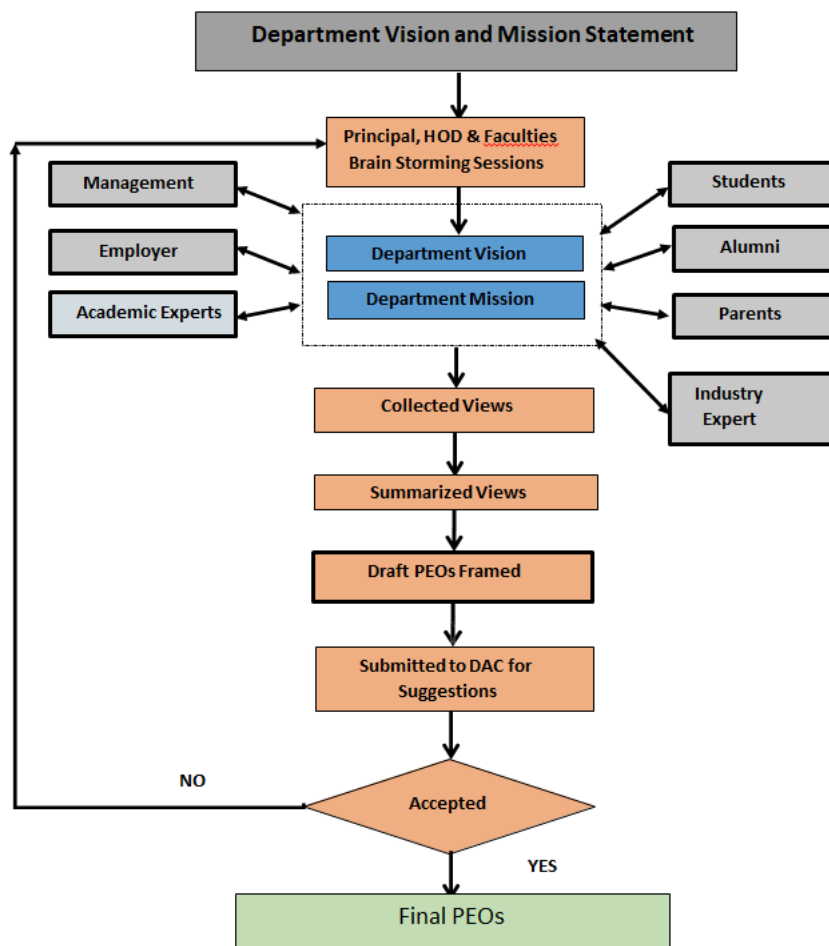


Figure 1.1.3 b: Process for defining PEOs of the Department

Dissemination of Vision, Mission and PEOs

Internal Stake Holders

1. Management – Sharnbasweshwara Vidya Vardhaka Sangha (R)
2. Governing Council Members
3. Faculty members
4. Non-Teaching Staff
5. Students

External Stake Holders

1. Parents
2. Industry
3. Alumni

The Vision and Mission Statements are published

The Dissemination of Vision, Mission and PEOs are grouped as below

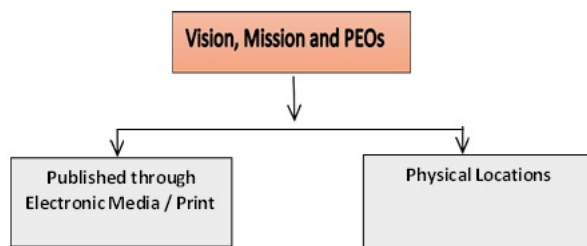


Fig 1.1.4.1 Dissemination of Vision, Mission and PEOs

The Dissemination of Vision, Mission and PEOs are grouped as below

The vision, Mission and PEO's are published in Electronic Media

Table 1.1.4.a

SI No	Published	Department		
		VISION	MISSION	PEO's
1	College Website/ Department web page	YES	YES	YES
2	Course File	YES	YES	YES
3	Lab Manuals	YES	YES	YES
4	College, Conference, Workshop Brochure	YES	YES	
5	Project, Seminar Reports	YES	YES	
6	Department Newsletter	YES	YES	

The vision, Mission and PEO's are disseminated physical locations

Table 1.1.4b

SI No	Location	Department		
		Vision	Mission	PEO
1	HOD Room	YES	YES	YES
2	Faculty Room	YES	YES	YES
2	Class Room	YES	YES	
3	Laboratory	YES	YES	
4	Seminar Hall	YES	YES	
5	Dept. Notice Board	YES	YES	YES

1.1.5 Mapping of PEOs with Mission (10)

Institute Marks : 10.00

PEO Statements	M1	M2	M3	M4
Impart foundational knowledge in electronics and communication engineering that will help them in their future professional endeavours and academic pursuits.	3	1	1	1
Train the students or impart trainees to the students to develop new products and solve engineering challenges that is technically sound and socially acceptable.	1	3	2	1
Encourage multidisciplinary work environment, utilizing their expertise abilities and resources to design, create and develop technologies with inventive and creative solutions to engineering challenges.	2	1	3	1
Graduates are encouraged for learning by acquiring new theories and technical advancements in their domain.	2	1	2	3
Training the graduates to lead and communicate with values of teams in and exhibit good moral behaviour.	1	3	1	3

PEO Statements	PEO1	PEO2	PEO3	PEO4	PEO5	Justification
M1	3	1	2	2	1	Focuses on teaching, research, and technical excellence which strongly supports foundational knowledge (PEO I) and promotes innovation and continuous learning (PEO III, PEO IV).
M2	1	3	1	1	3	Emphasizes entrepreneurship, ethics, and professional values, which strongly supports problem solving (PEO II) and leadership and ethical practices (PEO V).
M3	1	2	3	2	1	Workshops, expert talks, and industrial visits enhance practical problem-solving skills (PEO II) and encourage multidisciplinary innovation (PEO III) and lifelong learning (PEO IV).
M4	1	1	1	3	3	Focuses on ethics, leadership, and personal development, which strongly contributes to lifelong learning (PEO IV) and team leadership and communication skills (PEO V).

1.2 Curriculum Structure and Features (30)

ID	Course Code	Course Title	Classroom Instruction (CI) (in hours per semester)		Lab Instruction (LI) (in hours per semester)	Term Work (TW) and Self Learning (SL) (TW+ SL) (in hours per semester)	Total no. of Hours per semester	Total Credits (C)* (Total Hours/30)
			L	T	P	SL		
1	21MAT31	Transform Calculus,Fourier Series And Numerical Techniques	40	20	0	30	90	3.00
2	21EC32	Digital System Design using Verilog	48	0	36	36	120	4.00
3	21EC33	Basic Signal Processing	48	0	36	36	120	4.00
4	21EC34	Analog Electronic Circuits	40	20	0	30	90	3.00
5	21ECL35	Analog and Digital Electronics Lab	0	0	30	0	30	1.00
6	21UH36	Social Connect and Responsibility	0	0	30	0	30	1.00
7	21KSK37/KBK37	Samskrutika Kannada/Balake Kannada	30	0	0	0	30	1.00
8	21EC381	LD (Logic Design) Lab using Pspice / MultiSIM	0	0	30	0	30	1.00
9	21EC41	Maths for Communication Engineers	40	10	0	40	90	3.00
10	21EC42	Digital Signal Processing	48	0	36	36	120	4.00
11	21EC43	Circuits & Controls	48	0	36	36	120	4.00
12	21EC44	Communication Theory	40	20	0	30	90	3.00
13	21BE45	Biology For Engineers	30	10	0	20	60	2.00
14	21ECL46	Communication Laboratory I	0	0	30	0	30	1.00
15	21CIP47	Constitution of India & Professional Ethics	20	0	0	10	30	1.00
16	21EC482	C++ Basics	0	0	30	0	30	1.00
17	21UH49	Universal Human Values	0	0	30	0	30	1.00
18	21INT49	Inter/Intra Institutional Internship	0	0	30	30	60	2.00
19	21EC51	Digital Communication	40	20	0	30	90	3.00
20	21EC52	Computer Organization & ARM Microcontroller	48	0	36	36	120	4.00
21	21EC53	Computer Communication Networks	40	20	0	30	90	3.00
22	21EC54	Electromagnetics Waves	40	20	0	30	90	3.00
23	21ECL55	Communication Lab II	0	0	30	0	30	1.00

24	21EC56	Research Methodology & Intellectual Property Rights	30	0	0	30	60	2.00
25	21CIV57	Environmental Studies	20	0	0	10	30	1.00
26	21EC584	Data Structures using C++	0	0	30	0	30	1.00
27	21EC61	Technological Innovation Management and Entrepreneurship	40	20	0	30	90	3.00
28	21EC62	Microwave Theory & Antennas	48	0	36	36	120	4.00
29	21EC63	VLSI Design & Testing	40	20	0	30	90	3.00
30	21EC643	Python Programming	30	0	30	30	90	3.00
31	21CS654	Programming in JAVA	40	20	0	30	90	3.00
32	21ECL66	VLSI Laboratory	0	0	30	0	30	1.00
33	21ECMP67	Mini Project	0	0	30	30	60	2.00
34	21INT68	Innovation/Entrepreneurship /Societal Internship	0	0	50	40	90	3.00
35	21EC71	Advanced VLSI	40	20	0	30	90	3.00
36	21EC72	Optical & Wireless Communication	30	20	0	10	60	2.00
37	21EC733	DSP Algorithms & Architecture	40	20	0	30	90	3.00
38	21EC741	IoT & Wireless Sensor Networks	40	20	0	30	90	3.00
39	21CS752	Introduction to AI and ML	40	20	0	30	90	3.00
40	21EC76	Project work	0	50	100	150	300	10.00
41	21EC81	Technical Seminar	0	30	0	0	30	1.00
42	21INT82	Research Internship/ Industry Internship	0	50	200	200	450	15.00
43	21MAT11	Calculus And Differential Equations	40	10	0	40	90	3.00
44	21PHY12	Engineering Physics	40	10	0	40	90	3.00
45	21ELE13	Basic Electrical Engineering	40	30	0	20	90	3.00
46	21CIV14	Elements of Civil Engineering and Mechanics	40	20	0	30	90	3.00
47	21EVN15	Engineering Visualization	40	10	40	0	90	3.00
48	21PHYL16	Engineering Physics Laboratory	0	0	30	0	30	1.00
49	21ELEL17	Basic Electrical Engineering Laboratory	0	0	30	0	30	1.00

50	21EGH18	Communicative English	40	20	0	0	60	2.00
51	21IDT19	Innovation And Design Thinking	30	0	0	0	30	1.00
52	21MAT21	Advanced Calculus And Numerical Methods	40	10	0	40	90	3.00
53	21CHE22	Engineering Chemistry	40	10	0	40	90	3.00
54	21PSP23	Problem-Solving Through Programming	40	10	0	40	90	3.00
55	21ELN24	Basic Electronics & Communication Engineering	40	10	0	40	90	3.00
56	21EME25	Elements Of Mechanical Engineering	40	0	40	10	90	3.00
57	21CHEL26	Engineering Chemistry laboratory	0	0	30	0	30	1.00
58	21CPL27	Computer Programming Laboratory	0	0	30	0	30	1.00
59	21EGH28	Professional Writing Skills in English	40	20	0	0	60	2.00
60	21SFH29	Scientific Foundations of Health	30	0	0	0	30	1.00
		Total	1578	590	1126	1506	4800	160.00

1.2.2 Components of Program Curriculum (5)

Institute Marks : 5.00

Course Components	Curriculum Content (% of total number of credits of the program)	Total number of contact hours	Total number of credits
Basic Sciences	12.5	600.00	20.00
Basic Engineering	12.5	600.00	20.00
Humanities and Social Scie	6.25	300.00	10.00
Program Core	31.87	1530.00	51.00
Program Electives	5.6	270.00	9.00
Open Electives	3.7	180.00	6.00
Project(s)	7.5	360.00	12.00
Internships/Seminars	13.12	630.00	21.00
Any other (Please specify)	6.87	330.00	11.00
Total number of Credits			160.00

1.2.3 State the Process Used to Identify Extent of Compliance of the University Curriculum for Attaining the Program Outcomes and Program Specific Outcomes as mentioned in Annexure

II. Also Mention the Identified Curricular Gaps, if any (10)

Institute Marks : 10.00

The Department of Electronics & Communication Engineering, Lingaraj Appa Engineering College is affiliated to Visvesvaraya Technological University (VTU), Belagavi, Karnataka. The program curriculum is as provided by University, which is composition of Basic science, Engineering Sciences, Humanity and Social Sciences, Management courses, Ability enhancement courses, Integrated professional core courses, professional core courses with the specified breadth and depth of learning. The curriculum is formulated and reviewed once in 4 years through Board of Studies (BoS) of VTU comprising a Chairman, Senior Professors of ECE discipline and Industry representatives. The composition of VTU curriculum for the program B.E (Bachelor of Engineering) in Electronics & Communication Engineering (ECE) is shown in table No. 1.2.3.(a). The table no. 1.2.3(b) shows, extent of mapping of the courses to program outcomes and Table No. 1.2.3(c) shows the mapping of the courses to program specific outcomes.

Table No.1.2.3.(a): Composition of courses

Sl. No.	Types of Course offered	No of subjects mapped	No of hours allotted	Weightage in Percentage	POs & PSOs
1	Humanities & Social Sciences	6	300	6.25	PO3, PO6, PO7, PO8, PO9,PO11,PSO1,PSO3
2	Basic Sciences	8	600	12.5	PO1,PO2,PO3,PO5,PO6,PO7,PO11,PSO1
3	Engineering Sciences	8	600	12.5	PO1,PO2,PO3,PO5,PO6,PO7,PO11,PSO1,PSO2
4	Professional Core subjects	18	1530	31.87	PO1,PO2,PO3,PO4,PO5,PO10,PO11,PSO2
5	Elective	5	450	9.37	PO1,PO2,PO3,PO9,PO10,PO11,PSO2,PSO3
6	Project Work	2	360	7.5	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO8,PO9,PO10,PO11, PSO3
7	Ability Enhancement Course	7	270	5.6	PO1,PO2,PO3,PO5,PO11,PSO2,PSO3
7	Seminar/Internship	4	630	13.12	PO1,PO2,PO3,PO4,PO5,PO6,PO7,PO8,PO9,PO10,PO11,PSO3
8	Others	2	60	1.25	PO6,PO7,PO8,PO9,PO11,PSO3
Total Hours			4800	100	

Table No.1.2.3.(b) Mapping of the courses to Program Outcome

Course code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
21MAT11	3	2.6	1.7	1.8	3						2.6
21PHY12	3	2.8	2	2.2	1.8	1	1				2
21ELE13	3	2.6	1.4	1.8	2	2	2	3	1	1	2
21CIV14	3	2.6	1.3	2	3	2	2	1	1	1	1
21EVN15	2.4	2.4	2.3	3	2	1			1		3
21PHYL16	3	2	2		2.2	2.2					2.2
21ELEL17	2.8	2.6	2	2.2	3	2	1.5	1	1	1.4	1
21EGH18			2			2		2	2.2		2
21IDT19	3	2	2	2				2			2

21MAT21	3	2.8	1.8								2
21CHE22	3	2.2	1.6	1.4	1.2	1.3	1.3	1		1	2
21PSP23	3	2.8	2.3	1.8	3				1	1	1.8
21ELN24	3.0	2.5	1.9	1.7	3.0				1.6	1.0	2.0
21EME25	3	2.2	1.4	1	2	1	1.3				2
21CHEL26	3	2			1	2	2	2			1
21CPL27	2.8	2.8	2.4	2.4	1.8						2
21EGH28			2			2		2	2.8		2
21SFH29							2	2	2		2
21MAT31	3	2.8	1.4		3	1	1	1			1
21EC32			2.8	2.2	2.2						3
21EC33	2.8	2.2	2.2	0	0	0	0	0	0	0	2
21EC34	3	2.4	1.8	1	1.8	1	2		1	1.6	1.2
21ECL35	2.4	2	2.4	2.2	2.4	1.8	1.4	1	2.4	1.8	2.2
21UH36						2.8	2	2.4	1.6		2
21KSK37/21KBK3 7							1.8	2.5	2.4		1.4
21EC383	2.8	2.6	2	2.3	2.8	2	2	1	1	1	1.4
21MAT41	3	2.7	1.7		1.33	1	1	2	2		2
21EC42	2.8	2.2	2.2			1	1	2.5	1	1	3
21EC43	2.4	2.3	3		3	2	2	1	1		3
21EC44	3	2.4	1.8	1.3	1.4	1	1	1	1	1	1.2
21BE45	2.4	2.4	2.4			2	2	2	1	1	2
21ECL46	3	2.4	1.4	1.3	1.6	2	1	1	1	1	1.2
21CIP47							2.4	1	1.8		2
21EC482	3	2.4	2.6	1.6	2.2	1.4	2	2	2	1.2	2.4
21UH49	0.6	1	0	0	0	2.4	2.8	2.2	1.4	0.4	2
21INT49						2	2	3	3		2.3
21EC51	3	2.4	2		1.5	1	1	2	1	2	3
21EC52	3	2.8	2		1.6	2	2	1			3
21EC53	2.8	2.4	2		1.3	3	3	1	1		2
21EC54	3	2.6	1.7		1			1			3
21ECL55	2.5	2.6	2.4	2	3	2	1.3	2	1	1	1.2
21RMI56		1.8		2			2		2	2	2
21CIV57						2			2		
21EC581	3	2	2.4	1.8	3	2	2		2		1.4
21EC61						2		2	2	2	2
21EC62	3	2	1.8	1.8	2.2	1	1	1	1		1

21EC63	2	2	2.3	1.5	2	1	1	1.6	1	1	2
21EC643	3	2.4	2.3	2		1	1	1.8	1		2
21CS654	2.6	2	2.6	1	2.4	1		2	1	1	3
21ECL66	2.6	2.2	2.6	2.2	2.4	1	1	2	1	1	1.4
21ECMP67	2.2	2.5	2.5	2.5	2.3	1	1	2	2	3	1.8
21INT68	3	2.7	2.5	2	2	2	2	3	3	2	2.3
21EC71	3	2.4	2.3	2	2.6		1			2	3
21EC72	3	2	1.5		1			2			2
21EC733	3	2.4	2.3	2		1	1.4	1	1		3
21EC741	3	2.4	3		2.6		1	1			3
21CS752	3	2.4	2.3	2		1	1	1	1		2.3
21EC76	3	2.7	2.5	2	2	2	2	3	3	2	3
21EC81	3	2.7	2.5	2	2	2	2	3	3	2	2.2
21INT822	3	2.7	2.5	2	2	3	2	3	3	2.6	3

Table No.1.2.3.(c). Mapping of the courses to Program Specific Outcomes

Course code	PSO1	PSO2	PSO3
21MAT11	2	1	
21PHY12	3	2.5	
21ELE13	2	1	
21CIV14	1		
21EVN15	2.3	2	
21PHYL16			3
21ELEL17	3	2.6	
21EGH18	2.2		
21IDT19	2		
21MAT21	3		
21CHE22	2		
21PSP23	2	3	
21ELN24	2.2		
21EME25	2		
21CHEL26	2.2		2
21CPL27	2.4	1.8	3
21EGH28	3		
21SFH29	2.2		
21MAT31	1	3	
21EC32		1	
21EC33			1.4
21EC34		3	
21ECL35			3
21UH36			3
21KSK37/21KBK37	1		
21EC383			3
21MAT41	3		
21EC42		2	
21EC43		3	

21EC44		2	
21BE45	2		
21ECL46			3
21CIP47	1		
21EC482			3
21UH49			1.6
21INT49			3
21EC51			3
21EC52			1.4
21EC53		2.2	
21EC54		3	
21ECL55			2
21RMI56			1.8
21CIV57		1.3	1
21EC581		1.4	3
21EC61			2.6
21EC62		3	3
21EC63	2.4	2.3	
21EC643			3
21CS654		2	
21ECL66		1	3
21ECMP67			2.3
21INT68		3	2.3
21EC71		3	
21EC72			2
21EC733			3
21EC741		3	3
21CS752			3
21EC76		3	2.3
21EC81			3
21INT82		3	2.3

Process of Identifying Curriculum Gaps:

The average mapping values of all courses with respect to individual Program Outcomes (POs) and Program Specific Outcomes (PSOs) are computed. Subsequently, the overall average of all POs and PSOs is determined and considered as the threshold value.

If the average mapping value of any individual PO or PSO falls below this threshold, it is identified as a **Curriculum Gap**, indicating the need for improvement through curriculum enhancement, additional content delivery, or supplementary activities.

The Table 1.2.3(d) illustrates the curriculum Gaps identified in the program.

Table No.1.2.3(d) Gaps in POs

Sl. No.	POs & PSOs
1	PO4
2	PO6
3	PO7
4	PO8
5	PO9
6	PO10

1.2.4 State the Delivery Details of the Content beyond the Syllabus for the Attainment of Program Outcomes and Program Specific Outcomes (10)

Institute Marks : 10.00

Table No.1.2.4.1: Details of events organized to cover content beyond the syllabus.

(CAYm1) 2024-25

S.No	PO/PSO as Gap Identified	Name of The Event	Date (DD/MM/YYYY)of The Event	Resource Person	Organization	Relevance to POs, PSOs	Action
1	PO4,PO6,PO7,P08, PO9& P	ICISCN 2025	24/012025	Akira Yamanaka	Associate Professor,Ehime U	PO1,PO2,PO3,PO4,PO8,PO	Delete
2	PO4,PO6,PO7,P08, PO9& P	Poster Presentation	28/02/2025	Prof Shivganga patil, Dr Suja	SUK Kalburagi ,GNDEC ,Bic	PO3, PO4,PO6,PO11	Delete
3	PO4,PO6,PO7,P08, PO9& P	One day Seminar	28/02/2025	Mr. Lokesh Patil	Senior design Engineer In se	PO6, PO7, PO11	Delete
4	PO4,PO6,PO7,P08, PO9& P	One Day Seminar on Awarne	28/02/2025	Dr Sujata K	Associate Professor,Dept EC	PO3,PO7,PO10,PO11	Delete
5	PO4,PO6,PO7,P08, PO9& P	One Day Workshop on "Tran	31/05/2025	Mrs.Pallavi Biradar	Asst Professor,Dept of CSE f	PO3,PO6 PO9,PO10,PO11	Delete
6	PO4,PO6,PO7,P08, PO9& P	International Yoga Day	21/06/2025	Yogendra Yadlapure	Patanjali Yoga samiti Bidar	PO6,PO8,PO11	Delete
7	PO4,PO6,PO7,P08, PO9& P	Departmental Project Exhibiti	20/09/2024	Mr.Sangamesh andure	J N Polytechnic Thana Kusnc	PO3, PO11	Delete
8	PO4,PO6,PO7,P08, PO9& P	IEEE 3rd edition of NKSS's F	21/09/2024	Dr. S. H. Jangamshetti,Dr. Dc	Vice Chancellor, Haveri Univ	PO6, PO7, PO11	Delete
9	PO4,PO6,PO7,P08, PO9& P	Industrial Visit to (ISRO) U R	30/09/2024	Mrs. Vidyabharti,U R Rao	Technical Assistant, (ISRO),S	PO4,PO7	Delete

(CAYm2) 2023-24

S.No	PO/PSO as Gap Identified	Name of The Event	Date (DD/MM/YYYY)of The Event	Resource Person	Organization	Relevance to POs, PSOs	Action
1	PO4,PO6,PO7,P08, PO9& P	Two day Workshop on "Emer	09/02/2024	MR. Praveen kumar Eklare	Lead Consultant at Infosys	PO6, PO7, PO11	Delete
2	PO4,PO6,PO7,P08, PO9& P	Environmental Day	05/06/2024	NSS UNIT	LAEC Bidar	PO6,PO8,PO9,PO10,PO11	Delete
3	PO4,PO6,PO7,P08, PO9& P	Technical talk	28/06/2024	Dr Md Bhakar	GNDEC Bidar	PO4	Delete
4	PO4,PO6,PO7,P08, PO9& P	Antennas: Basics to Smart E	28/06/2024	Dr Md Bhakar	GNDEC Bidar	PO4	Delete
5	PO4,PO6,PO7,P08, PO9& P	Recent trends in VLSI testing	13/07/2024	Mr. Lokesh Patil	Senior design Engineer In se	PO6, PO8, PO11	Delete
6	PO4,PO6,PO7,P08, PO9& P	Helping local schools to achie	31/07/2024	NSS Volunteers	LAEC Bidar	PO6, PO7, PO11	Delete
7	PO4,PO6,PO7,P08, PO9& P	One day seminar on "Motivat	07/09/2023	Mr. Nagaprasad	Motivational Speaker Hyder	PO6,PO8,PO09,PO11	Delete
8	PO4,PO6,PO7,P08, PO9& P	College level Hackathon (Sr	27/09/2023	Mr.Sateesh ambasangi	Pragyna AI Bengaluru	PO7, PO11	Delete
9	PO4,PO6,PO7,P08, PO9& P	QR code manipulation, mobil	21/09/2023	Mr.Sateesh ambasangi	Pragyna AI Bengaluru	PO6, PO7, PO11	Delete

(CAYm3) 2022-23

S.No	PO/PSO as Gap Identified	Name of The Event	Date (DD/MM/YYYY)of The Event	Resource Person	Organization	Relevance to POs, PSOs	Action
1	PO4,PO6,PO7,P08, PO9& P	One day Seminar on "Wome	2/12/2022	Smt. Jyoti D Bomma	Member Kannada Sahitya Sa	PO6,PO7,PO8,PO9,PO10	Delete
2	PO4,PO6,PO7,P08, PO9& P	One day Seminar on "Univer:	2/12/2022	Dr. Abhirama Krishna	Director General Seth Ghasir	PO6,PO7,PO8,PO9,PO10	Delete
3	PO4,PO6,PO7,P08, PO9& P	One day Seminar on "Sell Yo	6/12 2022	Dr. Yandamoori Veerendrana	Chatered Accountant, Noveli:	PO7,PO8,PO9,PO10,PO11	Delete
4	PO4,PO6,PO7,P08, PO9& P	One day Seminar on "Motiva	7/12/2022	CA Prashanth Bijaspur	Chartered Accountant & Moti	PO6,PO7,PO8,PO9,PO10,PI	Delete

1.3 PO, PSO and their Mapping with Courses (20)

1.3.1 POs and PSOs (5)

PSO1	Apply differential integral calculus in mathematics, science and engineering principles specific to electronics and communication engineering
PSO2	Apply the knowledge of electronics and communication engineering principles in VLSI, Signal Processing, Communication, Embedded Systems, Control Engineering, Software and Hardware Programming
PSO3	Conduct experiments, analyse and interpret data, use modern tools in the field of electronics and communication engineering. Demonstrate the leadership qualities and strive for the betterment of organization, environment and society.

1.3.2 Mapping between the Courses and POs/PSOs (10)

Institute Marks : 10.00

PO:

PO Number	List of Courses
PO1	21MAT11, 21PHY12, 21ELE13, 21CIV14, 21EVN15, 21PHYL16, 21ELEL17, 21IDT19, 21MAT21, 21CHE22, 21PSP23, 21ELN24, 21EME25, 21CHEL26, 21CPL27, 21MAT31, 21EC32, 21EC33, 21EC34, 21ECL35, 21EC383, 21MAT41, 21EC42, 21EC43, 21EC44, 21BE45, 21ECL46, 21EC482, 21UH49, 21EC51, 21EC52, 21EC53, 21EC54, 21ECL55, 21EC581, 21EC62, 21EC63, 21EC643, 21CS654, 21ECL66, 21ECMP67, 21INT68, 21EC71, 21EC72, 21EC733, 21EC741, 21CS752, 21EC76, 21EC81, 21INT82
PO2	21MAT11, 21PHY12, 21ELE13, 21CIV14, 21EVN15, 21PHYL16, 21ELEL17, 21IDT19, 21MAT21, 21CHE22, 21PSP23, 21ELN24, 21EME25, 21CHEL26, 21CPL27, 21MAT31, 21EC32, 21EC33, 21EC34, 21ECL35, 21EC383, 21MAT41, 21EC42, 21EC43, 21EC44, 21BE45, 21ECL46, 21EC482, 21UH49, 21EC51, 21EC52, 21EC53, 21EC54, 21ECL55, 21RMI56, 21EC581, 21EC62, 21EC63, 21EC643, 21CS654, 21ECL66, 21ECMP67, 21INT68, 21EC71, 21EC72, 21EC733, 21EC741, 21CS752, 21EC76, 21EC81, 21INT82
PO3	21MAT11, 21PHY12, 21ELE13, 21CIV14, 21EVN15, 21PHYL16, 21ELEL17, 21EGH18, 21IDT19, 21MAT21, 21CHE22, 21PSP23, 21ELN24, 21EME25, 21CPL27, 21EGH28, 21MAT31, 21EC32, 21EC33, 21EC34, 21ECL35, 21EC383, 21MAT41, 21EC42, 21EC43, 21EC44, 21BE45, 21ECL46, 21EC482, 21EC51, 21EC52, 21EC53, 21EC54, 21ECL55, 21EC581, 21EC62, 21EC63, 21EC643, 21CS654, 21ECL66, 21ECMP67, 21INT68, 21EC71, 21EC72, 21EC733, 21EC741, 21CS752, 21EC76, 21EC81, 21INT82
PO4	21MAT11, 21PHY12, 21ELE13, 21CIV14, 21EVN15, 21ELEL17, 21IDT19, 21CHE22, 21PSP23, 21ELN24, 21EME25, 21CPL27, 21EC34, 21ECL35, 21EC383, 21EC44, 21ECL46, 21EC482, 21ECL55, 21RMI56, 21EC581, 21EC62, 21EC63, 21EC643, 21CS654, 21ECL66, 21ECMP67, 21INT68, 21EC71, 21EC733, 21CS752, 21EC76, 21EC81, 21INT82
PO5	21MAT11, 21PHY12, 21ELE13, 21CIV14, 21EVN15, 21PHYL16, 21ELEL17, 21CHE22, 21PSP23, 21ELN24, 21EME25, 21CHEL26, 21CPL27, 21MAT31, 21EC34, 21ECL35, 21EC383, 21MAT41, 21EC43, 21EC44, 21ECL46, 21EC482, 21EC51, 21EC52, 21EC53, 21EC54, 21ECL55, 21EC581, 21EC62, 21EC63, 21CS654, 21ECL66, 21ECMP67, 21INT68, 21EC71, 21EC72, 21EC741, 21EC76, 21EC81, 21INT82
PO6	21PHY12, 21ELE13, 21CIV14, 21EVN15, 21PHYL16, 21ELEL17, 21EGH18, 21CHE22, 21EME25, 21CHEL26, 21EGH28, 21MAT31, 21EC34, 21ECL35, 21UH36, 21EC383, 21MAT41, 21EC42, 21EC43, 21EC44, 21BE45, 21ECL46, 21EC482, 21UH49, 21INT49, 21EC51, 21EC52, 21EC53, 21ECL55, 21CIV57, 21EC581, 21EC61, 21EC62, 21EC63, 21EC643, 21CS654, 21ECL66, 21ECMP67, 21EC733, 21CS752, 21EC76, 21EC81, 21INT82
PO7	21PHY12, 21ELE13, 21CIV14, 21ELEL17, 21CHE22, 21EME25, 21CHEL26, 21SFH29, 21MAT31, 21EC34, 21ECL35, 21UH36, 21KSK37/21KBK37, 21EC383, 21MAT41, 21EC42, 21EC43, 21EC44, 21BE45, 21ECL46, 21CIP47, 21EC482, 21UH49, 21INT49, 21EC51, 21EC52, 21EC53, 21ECL55, 21RMI56, 21EC581, 21EC62, 21EC63, 21EC643, 21ECL66, 21ECMP67, 21INT68, 21EC71, 21EC733, 21EC741, 21CS752, 21EC76, 21EC81, 21INT82
PO8	21ELE13, 21CIV14, 21ELEL17, 21EGH18, 21IDT19, 21CHE22, 21CHEL26, 21EGH28, 21SFH29, 21MAT31, 21ECL35, 21UH36, 21KSK37/21KBK37, 21EC383, 21MAT41, 21EC42, 21EC43, 21EC44, 21BE45, 21ECL46, 21CIP47, 21EC482, 21UH49, 21INT49, 21EC51, 21EC52, 21EC53, 21EC54, 21ECL55, 21EC61, 21EC62, 21EC63, 21EC643, 21CS654, 21ECL66, 21ECMP67, 21INT68, 21EC72, 21EC733, 21EC741, 21CS752, 21EC76, 21EC81, 21INT82
PO9	21ELE13, 21CIV14, 21EVN15, 21ELEL17, 21EGH18, 21PSP23, 21ELN24, 21EGH28, 21SFH29, 21EC34, 21ECL35, 21UH36, 21KSK37/21KBK37, 21EC383, 21MAT41, 21EC42, 21EC43, 21EC44, 21BE45, 21ECL46, 21CIP47, 21EC482, 21UH49, 21INT49, 21EC51, 21EC53, 21ECL55, 21RMI56, 21CIV57, 21EC581, 21EC61, 21EC62, 21EC63, 21EC643, 21CS654, 21ECL66, 21ECMP67, 21INT68, 21EC733, 21CS752, 21EC76, 21EC81, 21INT82
PO10	21ELE13, 21CIV14, 21ELEL17, 21CHE22, 21PSP23, 21ELN24, 21EC34, 21ECL35, 21EC383, 21MAT41, 21EC42, 21EC44, 21BE45, 21ECL46, 21EC482, 21UH49, 21EC51, 21ECL55, 21RMI56, 21EC61, 21EC63, 21CS654, 21ECL66, 21ECMP67, 21INT68, 21EC71, 21EC76, 21EC81, 21INT82
PO11	21ELEL17, 21IDT19, 21PSP23, 21EC32, 21EC34, 21UH36, 21EC383, 21EC42, 21EC44, 21MAT11, 21PHY12, 21ELE13, 21CIV14, 21EVN15, 21PHYL16, 21ELEL17, 21EGH18, 21IDT19, 21MAT21, 21CHE22, 21PSP23, 21ELN24, 21EME25, 21CHEL26, 21CPL27, 21EGH28, 21SFH29, 21MAT31, 21EC32, 21EC33, 21EC34, 21ECL35, 21UH36, 21KSK37/21KBK37, 21EC383, 21EC42, 21EC43, 21EC44, 21BE45, 21ECL46, 21CIP47, 21EC482, 21UH49, 21INT49, 21EC51, 21EC52, 21EC53, 21EC54, 21ECL55, 21RMI56, 21EC581, 21EC61, 21EC63, 21EC643, 21CS654, 21ECL66, 21ECMP67, 21INT68, 21EC71, 21EC72, 21EC733, 21EC741, 21CS752, 21EC76, 21EC81, 21INT82

1.4 Course Outcomes and Course Articulation Matrix (30)

No. of Core Courses : 10	C2 : 4	C3 : 4	C4 : 2
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Note : Number of Outcomes for a Course is expected to be around 6.

Course Code :	21EC32	Semester :	3
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Course Outcome	Statements
21EC32.1	Simplify Boolean functions using Karnaugh Maps (K-map) and Quine–McCluskey minimization techniques.
21EC32.2	Analyze and design various combinational logic circuits based on given specifications.
21EC32.3	Understand and analyze the working of Flip-Flops (SR, D, JK, T) and design synchronous sequential circuits.
21EC32.4	Model and implement combinational circuits (adders, subtractors, multiplexers) and sequential circuits using Verilog HDL.
21EC32.5	Apply digital design principles to develop and verify hardware systems using simulation tools and Verilog-based design methodology.

Course Code :	21EC34	Semester :	3
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Course Outcome	Statements
21EC34.1	Understand the characteristics of BJTs and FETs for switching and amplifier circuits
21EC34.2	Design and analyze FET amplifiers and oscillators with different circuit configurations and biasing conditions
21EC34.3	Understand the feedback topologies and approximations in the design of amplifiers and oscillators
21EC34.4	Design of circuits using linear ICs for wide range applications such as ADC, DAC, filters and timers.
21EC34.5	Understand the power electronic device components and its functions for basic power electronic

Course Code :	21EC42	Semester :	4
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Course Outcome	Statements
21EC42.1	Determine the response of Linear Time-Invariant (LTI) systems using time-domain methods and Discrete Fourier Transform (DFT) techniques.
21EC42.2	Compute the DFT of real and complex discrete-time signals and interpret their frequency-domain representation.
21EC42.3	Apply Fast Fourier Transform (FFT) algorithms for efficient computation of DFT.
21EC42.4	Design and analyze FIR and IIR digital filters based on given specifications.
21EC42.5	Implement and realize digital filters using DSP processors for practical signal processing applications.

Course Code :	21EC43	Semester :	4
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Course Outcome	Statements
21EC43.1	Analyse and solve Electric circuit, by applying, loop analysis, Nodal analysis and by applying network Theorems.
21EC43.2	Evaluate two port parameters of a network and Apply Laplace transforms to solve electric networks.
21EC43.3	Deduce transfer function of a given physical system, from differential equation representation or Block Diagram representation and SFG representation.
21EC43.4	Calculate time response specifications and analyse the stability of the system.
21EC43.5	Analyze system behavior using root locus, frequency response, and state-space representation to study gain effects, stability, and time response

Course Code :	21EC53	Semester :	5
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Course Outcome	Statements
21EC53.1	Develop a strong understanding of fundamental networking concepts and principles.
21EC53.2	Identify and explain the protocols and services associated with different network layers.
21EC53.3	Differentiate between various network configurations and standards used in communication systems.
21EC53.4	Analyze and evaluate network-based applications and their implementation.
21EC53.5	Apply knowledge of application-layer protocols (HTTP, FTP, Email, DNS), QoS, and network security to design secure and efficient network systems.

Course Code :	21EC54	Semester :	5
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Course Outcome	Statements
21EC54.1	Evaluate problems on electrostatic force, electric field due to point, linear, volume charges by applying conventional methods and charge in a volume.
21EC54.2	Apply Gauss law to evaluate Electric fields due to different charge distributions and Volume Charge distribution by using Divergence Theorem.
21EC54.3	Determine potential and energy with respect to point charge and capacitance using Laplace equation and Apply Biot-Savart's and Ampere's laws for evaluating Magnetic field for different current configurations
21EC54.4	Calculate magnetic force, potential energy and Magnetization with respect to magnetic materials and voltage induced in electric circuits.
21EC54.5	Apply Maxwell's equations for time varying fields, EM waves in free space and conductors and Evaluate power associated with EM waves using Poynting theorem

Course Code :	21EC62	Semester :	6
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Course Outcome	Statements
21EC62.1	Derive and apply transmission line equation to design distributed circuits.
21EC62.2	Analyse various parameters related to microwave transmission lines and wave guides.
21EC62.3	Demonstrate the working of various active and passive devices and compute performance parameters.
21EC62.4	Understand antenna as point source to compute various parameters of antenna.
21EC62.5	Analyse and compute antenna parameters for different applications.

Course Code :	21EC63	Semester :	6
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Course Outcome	Statements
21EC63.1	Explain MOS transistor characteristics, CMOS fabrication process, and technology scaling in VLSI circuits.
21EC63.2	Design CMOS logic gates and implement digital circuits using stick diagrams and layout techniques.
21EC63.3	Analyze the operation of CMOS combinational circuits and evaluate their performance parameters
21EC63.4	Illustrate the design and operation of memory elements such as latches and flip-flops with timing considerations
21EC63.5	Evaluate testing and testability techniques used in digital VLSI circuits to detect faults and improve reliability.

Course Code :	21EC71	Semester :	7
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Course Outcome	Statements
21EC71.1	Explain the complete VLSI design flow and its stages, from specification to fabrication.
21EC71.2	Apply ASIC design methodologies to develop application-specific integrated circuits.
21EC71.3	Create and optimize floor plans, including partitioning and routing, using CAD tools.
21EC71.4	Analyze and gain insights into VLSI back-end design flow, including placement and routing.
21EC71.5	Demonstrate verification techniques and apply System Verilog for functional validation.

Course Code :	21EC72	Semester :	7
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Course Outcome	Statements
21EC72.1	Classify and analyze optical fibers based on different modes of signal propagation.
21EC72.2	Explain the construction, features, and characteristics of optical fibers and the devices used for signal transmission and reception.
21EC72.3	Understand and apply the fundamental concepts of mobile radio channels and cellular communication systems.
21EC72.4	Describe and compare various multiple access techniques used in wireless communication.
21EC72.5	Explain GSM architecture and outline the procedures for call setup, call handling, and call termination in a GSM network.

1.4.2 Course Articulation Matrix (15)

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1 . course name : C221EC32

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
21EC32.1	Simplify Bo	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼
21EC32.2	Analyze an	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼
21EC32.3	Understand	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼
21EC32.4	Model and	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼
21EC32.5	Apply digita	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼

2 . course name : C221EC34

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
21EC34.1	Understand	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼
21EC34.2	Design and	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼
21EC34.3	Understand	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼
21EC34.4	Design of c	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼
21EC34.5	Understand	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼

3 . course name : C221EC42

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
21EC42.1	Determine f	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼
21EC42.2	Compute th	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼
21EC42.3	Apply Fast	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼
21EC42.4	Design and	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼
21EC42.5	Implement :	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼

4 . course name : C221EC43

Course	Statements	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
21EC43.1	Analyse an	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼
21EC43.2	Evaluate tw	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼
21EC43.3	Deduce trai	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼
21EC43.4	Calculate ti	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼
21EC43.5	Analyze sy:	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼	Select ▼

5 . course name : C321EC53

1 . Course Name : C221EC32

Course	PSO1	PSO2	PSO3
21EC32.1	Select v	Select v	Select v
21EC32.2	Select v	Select v	Select v
21EC32.3	Select v	Select v	Select v
21EC32.4	Select v	Select v	Select v
21EC32.5	Select v	Select v	Select v

2 . Course Name : C221EC34

Course	PSO1	PSO2	PSO3
21EC34.1	Select v	Select v	Select v
21EC34.2	Select v	Select v	Select v
21EC34.3	Select v	Select v	Select v
21EC34.4	Select v	Select v	Select v
21EC34.5	Select v	Select v	Select v

3 . Course Name : C221EC42

Course	PSO1	PSO2	PSO3
21EC42.1	Select v	Select v	Select v
21EC42.2	Select v	Select v	Select v
21EC42.3	Select v	Select v	Select v
21EC42.4	Select v	Select v	Select v
21EC42.5	Select v	Select v	Select v

4 . Course Name : C221EC43

Course	PSO1	PSO2	PSO3
21EC43.1	Select v	Select v	Select v
21EC43.2	Select v	Select v	Select v
21EC43.3	Select v	Select v	Select v
21EC43.4	Select v	Select v	Select v
21EC43.5	Select v	Select v	Select v

5 . Course Name : C321EC53

Course	PSO1	PSO2	PSO3
21EC53.1	Select ▼	Select ▼	Select ▼
21EC53.2	Select ▼	Select ▼	Select ▼
21EC53.3	Select ▼	Select ▼	Select ▼
21EC53.4	Select ▼	Select ▼	Select ▼
21EC53.5	Select ▼	Select ▼	Select ▼

6 . Course Name : C321EC54

Course	PSO1	PSO2	PSO3
21EC54.1	Select ▼	Select ▼	Select ▼
21EC54.2	Select ▼	Select ▼	Select ▼
21EC54.3	Select ▼	Select ▼	Select ▼
21EC54.4	Select ▼	Select ▼	Select ▼
21EC54.5	Select ▼	Select ▼	Select ▼

7 . Course Name : C321EC62

Course	PSO1	PSO2	PSO3
21EC62.1	Select ▼	Select ▼	Select ▼
21EC62.2	Select ▼	Select ▼	Select ▼
21EC62.3	Select ▼	Select ▼	Select ▼
21EC62.4	Select ▼	Select ▼	Select ▼
21EC62.5	Select ▼	Select ▼	Select ▼

8 . Course Name : C321EC63

Course	PSO1	PSO2	PSO3
21EC63.1	Select ▼	Select ▼	Select ▼
21EC63.2	Select ▼	Select ▼	Select ▼
21EC63.3	Select ▼	Select ▼	Select ▼
21EC63.4	Select ▼	Select ▼	Select ▼
21EC63.5	Select ▼	Select ▼	Select ▼

9 . Course Name : C421EC71

Course	PSO1	PSO2	PSO3
21EC71.1	Select ▼	Select ▼	Select ▼

21EC71.2	Select ▼	Select ▼	Select ▼
21EC71.3	Select ▼	Select ▼	Select ▼
21EC71.4	Select ▼	Select ▼	Select ▼
21EC71.5	Select ▼	Select ▼	Select ▼

10 . Course Name : C421EC72

Course	PSO1	PSO2	PSO3
21EC72.1	Select ▼	Select ▼	Select ▼
21EC72.2	Select ▼	Select ▼	Select ▼
21EC72.3	Select ▼	Select ▼	Select ▼
21EC72.4	Select ▼	Select ▼	Select ▼
21EC72.5	Select ▼	Select ▼	Select ▼

1.5 Program Articulation Matrix (5)

Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
21MAT11	3	2.6	1.7	1.8	3	PO6	PO7	PO8	PO9	PO10	2.6
21PHY12	3	2.8	2	2.2	1.8	1	1	PO8	PO9	PO10	2
21ELE13	3	2.6	1.4	1.8	2	2	2	3	1	1	2
21CIV14	3	2.6	1.3	2	3	2	2	1	1	1	1
21EVN15	2.4	2.4	2.3	3	2	1	PO7	PO8	1	PO10	3
21PHYL16	3	2	2	PO4	2.2	2.2	PO7	PO8	PO9	PO10	2.2
21ELEL17	2.8	2.6	2	2.2	3	2	1.5	1	1	1.4	1
21EGH18	PO1	PO2	2	PO4	PO5	2	PO7	2	2.2	PO10	2
21IDT19	3	2	2	2	PO5	PO6	PO7	2	PO9	PO10	2
21MAT21	3	2.8	1.8	PO4	PO5	PO6	PO7	PO8	PO9	PO10	2
21CHE22	3	2.2	1.6	1.4	1.2	1.3	1.3	1	PO9	1	2
21PSP23	3	2.8	2.3	1.8	3	PO6	PO7	PO8	1	1	1.8
21ELN24	3	2.5	1.9	1.7	3	PO6	PO7	PO8	1.6	1	2
21EME25	3	2.2	1.4	1	2	1	1.3	PO8	PO9	PO10	2
21CHEL26	3	2	PO3	PO4	1	2	2	2	PO9	PO10	1
21CPL27	2.8	2.8	2.4	2.4	1.8	PO6	PO7	PO8	PO9	PO10	2
21EGH28	PO1	PO2	2	PO4	PO5	2	PO7	2	2.8	PO10	2
21SFH29	PO1	PO2	PO3	PO4	PO5	PO6	2	2	2	PO10	2
21MAT31	3	2.8	1.4	PO4	3	1	1	1	PO9	PO10	1
21EC32	PO1	PO2	2.8	2.2	2.2	PO6	PO7	PO8	PO9	PO10	3
21EC33	2.8	2.2	2.2	PO4	PO5	PO6	PO7	PO8	PO9	PO10	2
21EC34	3	2.4	1.8	1	1.8	1	2	PO8	1	1.6	1.2
21ECL35	2.4	2	2.4	2.2	2.4	1.8	1.4	1	2.4	1.8	2.2
21UH36	PO1	PO2	PO3	PO4	PO5	2.8	2	2.4	1.6	PO10	2
21KSK37/21H	PO1	PO2	PO3	PO4	PO5	PO6	1.8	2.5	2.4	PO10	2.4
21EC383	2.8	2.6	2	2.3	2.8	2	2	1	1	1	1.4
21MAT41	3	2.7	1.7	PO4	1.3	1	1	2	2	PO10	2
21EC42	2.8	2.2	2.2	PO4	PO5	1	1	2.5	1	1	3
21EC43	2.4	2.3	3	PO4	3	2	2	1	1	PO10	3
21EC44	3	2.4	1.8	1.3	1.4	1	1	1	1	1	1.2
21BE45	2.4	2.4	2.4	PO4	PO5	2	2	2	1	1	2
21ECL46	3	2.4	1.4	1.3	1.6	2	1	1	1	1	1.2
21CIP47	PO1	PO2	PO3	PO4	PO5	PO6	2.4	1	1.8	PO10	2
21EC482	3	2.4	2.6	1.6	2.2	1.4	2	2	2	1.2	2.4
21UH49	0.6	1	PO3	PO4	PO5	2.4	2.8	2.2	1.4	0.4	2

21INT49	PO1	PO2	PO3	PO4	PO5	2	2	3	3	PO10	2.3
21EC51	3	2.4	2	PO4	1.5	1	1	2	1	2	3
21EC52	3	2.8	2	PO4	1.6	2	2	1	PO9	PO10	3
21EC53	2.8	2.4	2	PO4	1.3	3	3	1	1	PO10	2
21EC54	3	2.6	1.7	PO4	1	PO6	PO7	1	PO9	PO10	3
21ECL55	2.5	2.6	2.4	2	3	2	1.3	2	1	1	1.2
21RMI56	PO1	1.8	PO3	2	PO5	PO6	2	PO8	2	2	2
21CIV57	PO1	PO2	PO3	PO4	PO5	2	PO7	PO8	2	PO10	PO11
21EC581	3	2	2.4	1.8	3	2	2	PO8	2	PO10	1.4
21EC61	PO1	PO2	PO3	PO4	PO5	2	PO7	2	2	2	2
21EC62	3	2	1.8	1.8	2.2	1	1	1	1	PO10	1
21EC63	2	2	2.3	1.5	2	1	1	1.6	1	1	2
21EC643	3	2.4	2.3	2	PO5	1	1	1.8	1	PO10	2
21CS654	2.6	2	2.6	1	2.4	1	PO7	2	1	1	3
21ECL66	2.6	2.2	2.6	2.2	2.4	1	1	2	1	1	1.4
21ECMP67	2.2	2.5	2.5	2.5	2.3	1	1	2	2	3	1.8
21INT68	3	2.7	2.5	2	2	2	2	3	3	2	2.3
21EC71	3	2.4	2.3	2	2.6	PO6	1	PO8	PO9	2	3
21EC72	3	2	1.5	PO4	1	PO6	PO7	2	PO9	PO10	2
21EC741	3	2.4	3	PO4	2.6	PO6	1	1	PO9	PO10	3
21EC733	3	2.4	2.3	2	PO5	1	1.4	1	1	PO10	3
21CS752	3	2.4	2.3	2	PO5	1	1	1	1	PO10	2.3
21EC76	3	2.7	2.5	2	2	2	2	3	3	2	3
21EC81	3	2.7	2.5	2	2	2	2	3	3	2	2.2
21INT822	3	2.7	2.5	2	2	3	2	3	3	2.6	3

Course Code	PSO1	PSO2	PSO3
21BE45	2	PSO2	PSO3
21CHE22	2	PSO2	PSO3
21CHEL26	2.2	PSO2	2
21CIP47	1	PSO2	PSO3
21CIV14	1	PSO2	PSO3
21CIV57	PSO1	1.3	1
21CPL27	2.4	1.8	3
21CS654	PSO1	2	PSO3
21CS752	PSO1	PSO2	3

21EC32	PSO1	1	PSO3
21EC33	PSO1	PSO2	1.4
21EC34	PSO1	3	PSO3
21EC383	PSO1	PSO2	3
21EC42	PSO1	2	PSO3
21EC43	PSO1	3	PSO3
21EC44	PSO1	2	PSO3
21EC482	PSO1	PSO2	3
21EC51	PSO1	PSO2	3
21EC52	PSO1	PSO2	1.4
21EC53	PSO1	2.2	PSO3
21EC54	PSO1	3	PSO3
21EC581	PSO1	1.4	3
21EC61	PSO1	PSO2	2.6
21EC62	PSO1	3	3
21EC63	2.4	2.3	PSO3
21EC643	PSO1	PSO2	3
21EC71	PSO1	3	PSO3
21EC72	PSO1	PSO2	2
21EC733	PSO1	PSO2	3
21EC741	PSO1	3	3
21EC76	PSO1	3	2.3
21EC81	PSO1	PSO2	3
21ECL35	PSO1	PSO2	3
21ECL46	PSO1	PSO2	3
21ECL55	PSO1	PSO2	2
21ECL66	PSO1	1	3
21ECMP67	PSO1	PSO2	2.3
21EGH18	2.2	PSO2	PSO3
21EGH28	3	PSO2	PSO3
21ELE13	2	1	PSO3
21ELEL17	3	2.6	PSO3
21ELN24	2.2	PSO2	PSO3
21EME25	2	PSO2	PSO3
21EVN15	2.3	2	PSO3
21IDT19	2	PSO2	PSO3

21INT49	PSO1	PSO2	3
21INT68	PSO1	3	2.3
21INT822	PSO1	3	2.3
21KSK37/21t	1	PSO2	PSO3
21MAT11	2	1	PSO3
21MAT21	3	PSO2	PSO3
21MAT31	1	3	PSO3
21MAT41	3	PSO2	PSO3
21PHY12	3	2.5	PSO3
21PHYL16	PSO1	PSO2	3
21PSP23	2	3	PSO3
21RMI56	PSO1	PSO2	1.8
21SFH29	2.2	PSO2	PSO3
21UH36	PSO1	PSO2	3
21UH49	PSO1	PSO2	1.6

2 OUTCOME-BASED TEACHING LEARNING (120)

Total Marks 95.00

2.1 Describe Processes Followed to Ensure Quality of Teaching & Learning (20)

2.1 Teaching - Learning Processes

2.1.1 Describe processes followed to improve quality of Teaching & Learning

The Department of Electronics & Communication Engineering focuses on a well-structured and clear teaching and learning strategy to ensure the quality of our programs.

The Department promotes active learning through a variety of methods such as student seminars, laboratory work and industrial trips, alongside interactive classroom sessions. Our goal is to integrate more active learning strategies, including small-group exercises and quizzes, to increase student engagement.

Additionally, with a credit-based system, students can choose electives in higher semester based on their interests, under the guidance of a head of the department. This process is designed to continuously improve students learning abilities within the Department of Electronics & Communication Engineering.

- The Departmental Academic Committee monitors the academic activities of the department.
- The academic activities of the department start with course allotment process based on the specialization of the faculties.
- The faculty will plan the course, mode of delivery and materials to be exhibited will be shown to the Head of the Department for approval.
- All staffs are instructed to follow the prescribed rules of the University and the Department from the commencement to end of the semester.
- Pedagogical initiatives and instructional methods are included in the teaching learning process.

A. Academic calendar:

- College Academic Calendar is prepared by the institute includes commencement and Last Working day of Semester, Schedule for CIE, Theory and Practical Examinations Schedule inline with the university's academic calendar.
- Calendar of Events (COE) is prepared by the Department in line with the College's academic calendar. COE includes activities for the students which include Industry Interaction Programs, IEEE activities, NSS activities, other co-curricular activities and Extra-curricular activities such as sports, etc.. Students Association activities are planned as per the slots available in the academic calendar.

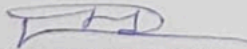
Centenary Celebrated Sharanbasveshwar Vidya Vardhak Sangha's



LINGARAJ APPA ENGINEERING COLLEGE, BIDAR

ACADEMIC CALENDAR FOR EVEN SEMESTER OF UG FOR THE YEAR 2024-25

Activities	II Semester BE/B.Tech (2022 SCHEME)	IV Semester BE/B.Tech (2022 SCHEME)	VI Semester BE/B.Tech (2022 SCHEME)	VIII Semester BE/B.Tech (2021 SCHEME)
Commencement of the semester	17.03.2025	10.02.2025	10.02.2025	15.02.2025
Students Induction Program	***	***	***	***
Commencement of Classes	17.03.2025	10.02.2025	10.02.2025	15.02.2025
1st CIE	5.05.2025 TO 7.05.2025	25.03.2025 TO 27.03.2025	25.03.2025 TO 27.03.2025	***
2nd CIE	19.06.2025 TO 21.06.2025	24.05.2025 TO 26.05.2025	24.05.2025 TO 26.05.2025	***
3rd CIE	***	***	***	***
Lab Internals	24.06.2025 TO 28.06.2025	27.05.2025 TO 31.05.2025	27.05.2025 TO 31.05.2025	11.05.2025 TO 15.05.2025
Last Working Day	28.06.2025	31.05.2025	31.05.2025	15.05.2025
Practical Examination/ Internship Viva voce/ Project viva	01.07.2025 TO 11.07.2025	02.06.2025 TO 13.06.2025	02.06.2025 TO 12.06.2025	27.05.2025 TO 02.06.2025
Theory examinations	14.07.2025 TO 09.08.2025	16.06.2025 TO 01.08.2025	16.06.2025 TO 01.08.2025	16.05.2025 TO 26.05.2025
Summer Project/ Professional training / Organization study	***	**	**	**
Submission of the report to University	***	**	**	**
Commencement of Next semester	11.08.2025	04.08.2025	04.08.2025	**


COORDINATOR



PRINCIPAL
PRINCIPAL
Lingraj Appa Engineering
College, Gomall, BIDAR-585403

Figure: 2.1.1(a) Academic Calendar of College



LINGARARAJ APPA ENGINEERING COLLEGE, BIDAR

Department of Electronics and Communication Engineering

Calendar of Events of UG Programs for the Academic Year 2024-25

EVEN semester

Sl no	Month	Event	Dates
1.	February	Commencement of the Even (4 th and 6 th)semester	10/02/2025
2		Commencement of the Even (8 th)semester	15/02/2025
3		On eve Science day IEEE activity on the eve Science day	28/02/2025
4	March	Women's day	10/03/2025
5		Training and placement activity	13/03/2025
6		IEEE activity	24/03/2025
7		1 st CIE for 4 th and 6 th Sem	25/03/2025 to 27/03/2025
8		Marks display and feedback Process	28/03/2025 to 29/03/2025
9	April	Training and Placement activity	01/04/2025 to 05/04/2025
10		Parent Teacher Meet	21/04/2025
11		Technostav Yukti	28/04/2025 to 29/04/2025
12	May	Technical seminar presentation of 8 th semester	10/05/2025
13		Internship work review and Evaluation 8 th semester	12/05/2025
14		Theory examination for 8 th Sem	16/05/2025 to 26/05/2025
15		IEEE activity	20/05/2025
16		NSS activity for 4 th and 6 th Sem	21/05/2025 to 22/05/2025
17		Project phase -1 Review and presentation for 6 th Sem	23/05/2025
18		1 st CIE for 4 th and 6 th Sem	25/05/2025 to 27/03/2025
19		Lab internal for 4 th and 6 th semester	28/05/2025 to 31/05/2025
20		Last working day of 4 th and 6 th sem	31/05/2025
21		Last working day of 8 th Sem	15/05/2025
22	Marks display and feedback Process	31/05/2025 to 5/06/2025	
23	Internship viva voce examination for 8 th Sem	27/05/2025 to 2/06/2025	
24	June	Practical examination	02/06/2025 to 12/06/2025
25		Theory examination	16/06/2025 to 01/08/2025



Figure 2.1.1 (b) Department's Calendar of Events

B. Use of Various instructional methods and pedagogical initiatives

Pedagogical initiatives refer to structured efforts aimed at improving teaching and learning methods. These initiatives can be implemented at various levels, from classrooms to entire educational institutions, and they often focus on innovative strategies, student engagement, and educational equity.

Content Delivery Strategies:

- Depending on the learning requirements, a combination of methods is used for content delivery.
- The department integrates both traditional and modern teaching techniques, ensuring a well-rounded learning experience.
- OBE aims to foster a more student-centered learning environment, where the emphasis is placed on the skills and competencies that learners need to acquire for their future endeavors.
- Course coordinator maintains Course File for each course, detailing the course information including syllabus, lesson plan, reference books, journals, websites, online materials and question bank relating to the course. Faculty members strictly follow the lesson plans, and in case of any gaps, special classes, guest lectures, or additional sessions are arranged to cover missed contents.

The following pedagogical initiatives are followed to improve the quality of Teaching Learning process by the faculty in content delivery.

- i. **Lectures:** Classroom lectures effectively deliver theoretical knowledge through logical explanations and numerical problem-solving. Faculty members use interactive teaching techniques to encourage student participation and improve learning outcomes.

Impact: Classroom teaching directly focuses on improvement of CO-PO attainment levels and student performance in core technical courses. It serves as evidence of continuous improvement, demonstrating how feedback-driven teaching changes lead to better results, placements, and higher-order thinking skills.

- ii. **Tutorials:** Tutorial sessions provide students with an opportunity to dive deeper into numerical and logical problem-solving courses.

Impact: These sessions help reinforce analytical skills by complementing theoretical knowledge with practical problem-solving exercises.

- iii. **Presentations Using Audio-Visual Aids:** Presentations are used to illustrate complex engineering concepts visually using graphics, animations, and real-world data. Videos showcasing practical engineering applications help students to better understand the impact of technology. These sessions are followed by interactive discussions, where students can ask questions and exchange ideas.

Impact: They provide an interactive way to communicate technical information, making learning and collaboration more efficient.



Figure 2.1.1 (c) Presentation using Audio-Visual Aids

iv. Laboratory-Based Learning: Students apply theoretical concepts in practical lab sessions, reinforcing their understanding through hands-on experience. Open ended experiments beyond syllabus allowing students to explore concepts creatively, develop critical thinking and engage in real-world problem-solving.

Impact: This method bridges the gap between classroom learning and real-world application.

v. Collaborative Learning: A group-based educational approach where students work together to solve problems, complete projects, and share ideas. Enhances teamwork, communication skills, and problem-solving abilities.

Impact: It enhances communication, teamwork, and interpersonal skills. Students develop critical thinking and gain confidence by expressing ideas. Overall, it prepares learners for real-world collaborative work environments.

vi. Think and Speak: Students are assigned specific topics and asked to think critically and present their ideas in front of their peers. This method helps improve confidence, articulation, and public speaking skills.

Impact: It enhances communication and articulation skills through regular speaking practice. Students develop critical thinking by analyzing and organizing their thoughts before speaking. Overall, it builds public speaking ability and prepares students for professional communication.

vii. Flipped classroom: A flipped classroom is a teaching approach where students acquire foundational knowledge before class, often through videos or readings, and then use class time for active learning, such as problem-solving, group work, and discussions.

Impact: It makes classroom sessions more interactive through discussions, problem-solving, and group activities. Students develop critical thinking and active learning skills. Overall, it increases engagement and better utilization of class time.

viii. YouTube videos : NPTEL videos are part of the National Programme on Technology Enhanced Learning, offering a vast repository of free, high-quality educational content.

Impact: They help students understand complex topics through visual and expert explanations. Self-paced learning improves flexibility and retention of concepts. Overall, they enhance independent learning and supplement classroom teaching.

ix. Poster presentation: Poster presentation is a visual display of projects and ideas which are presented in a public setting such as seminar and exhibition. It helps students to connect with others, improve the presentation skills and confidence, it provides a platform to share ideas with wider audience.

Impact: It enhances communication and summarization skills by conveying information concisely. Students gain confidence while explaining their work to an audience. Overall, it develops creativity and effective academic presentation skills.



Figure 2.1.1 (d) Poster presentation

x. Project Based Learning: It is an integral part of the curriculum, ensuring hands-on learning and practical exposure for students. Students actively engage in projects that help them apply theoretical knowledge to real-world challenges, fostering innovation, problem-solving skills, and technical expertise. Project based Learning ensure that, students are well-equipped with the technical competencies, creativity, and problem-solving skills required for a successful engineering career.

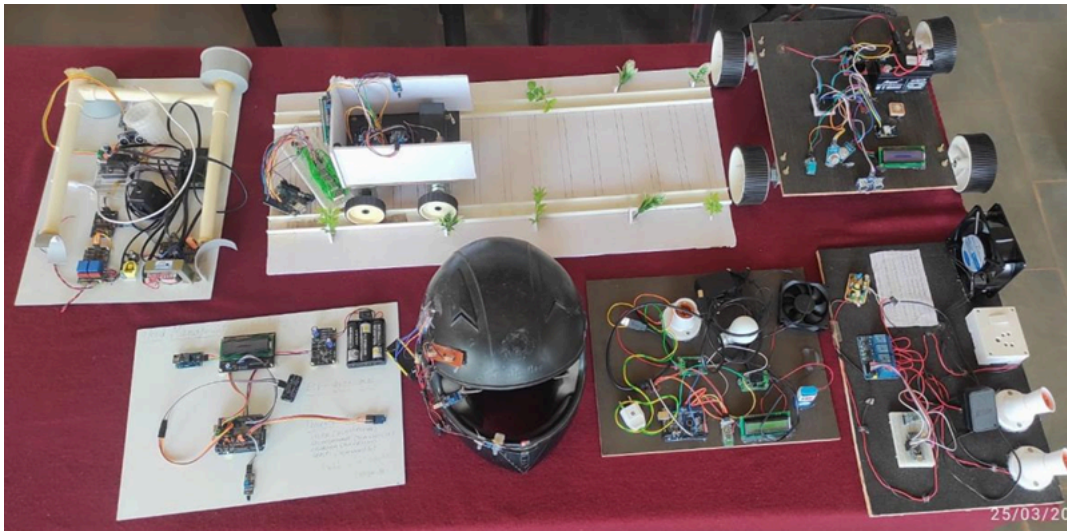


Figure 2.1.1 (e): Project models

Impact: It develops critical thinking, problem-solving and research skills. Students improve teamwork, communication, and project management abilities. Overall, it promotes active learning and prepares students for professional challenges.

xi. Quiz: Teachers conduct quiz sessions to help students understand concepts as well as to have a first-hand assessment on students learning.

Impact: Quizzes help reinforce learning by encouraging regular revision of concepts. They improve quick thinking and recall ability. Students can identify their strengths and areas for improvement. Overall, quizzes enhance engagement and continuous assessment.



Figure 2.1.1 (f): Quiz

xii. **Seminars:** Students are engaged in Seminars and debates related to current syllabus topics and cutting-edge industrial technologies.



Figure 2.1.1 (g): Seminar

Impact: Seminars bridge the gap between curriculum and emerging technologies. They demonstrably improve students technical presentation skills and research capabilities, leading to better performance in core industry interviews and project documentation.

xiii. **Workshops:** These are interactive, hands-on sessions where participants collaborate to solve problems, develop skills, or achieve specific goals under the guidance of a facilitator.

Impact: They enhance technical knowledge and improve problem-solving abilities. Students gain interaction with experts and learn new tools or techniques. Overall, workshops boost confidence and career readiness.



Figure 2.1.1 (h): Workshops

C. Methodologies to Support Weak Students and Encourage Bright Students:

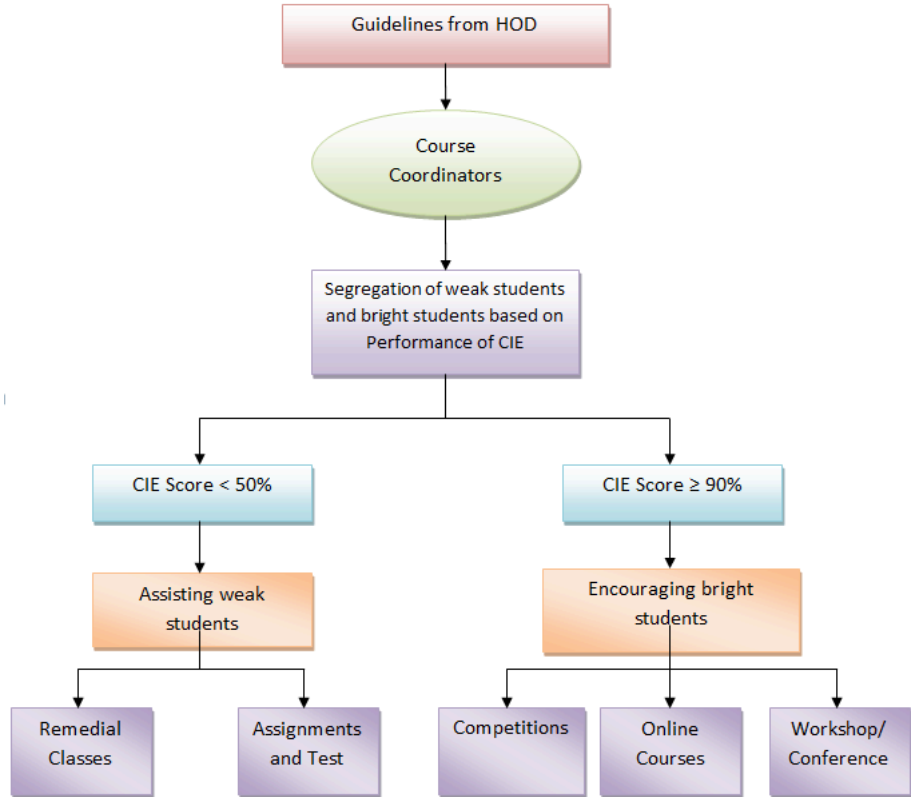


Figure 2.1.1 (i): Process to support weak students and encourage bright students

Methods to Identify Weak Students and Bright Students: The Course Co-coordinator identifies weak students and bright students based on their performance in the CIE.

Weak Students: The students scoring less than 50% marks in their CIE are identified as weak students. Remedial classes, group discussions, interaction with parents are conducted for weak students. Improvement CIE is taken for weak students.

Impact Analysis

- Improvement in academics.
- Due to the participation in various co-curricular and extracurricular activities students became regular to class.
- Participation in various group activities and preparing reports of the same.

Measures to support Bright students: Bright students are identified based on their performance in the CIE and from their participation in classroom discussions etc. The department offers a number of opportunities for bright students to augment their talent and meet their learning needs:

- Students are motivated to take up mini projects and encouraged to participate in inter college national fests.
- Encouraged to attend conferences, workshops, Smart India Hackathons (SIH) and publish papers.
- Encouraged to take up competitive examinations like GATE, SWAYAM Courses, GRE materials
- Every semester, parents & teacher meet is done and students' progress is shown to them.
- The faculty interacts with parents of both weak and bright students regularly to advice as well as supports the students to overcome her problems and get through the examinations.



Figure 2.2.1 (j): SIH and Journal Publication

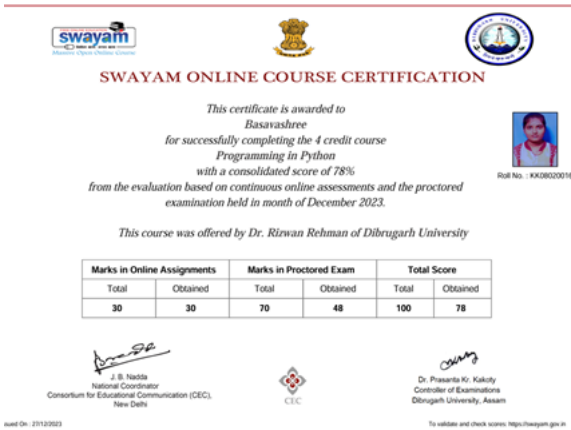


Figure 2.1.1 (k): SWAYAM online course and Paper presentation in conferences Conference

Impact Analysis

Efforts in identifying and encouraging bright students and assisting weak students have resulted in following positive outcomes:

- Students are motivated to participate in competitions like Smart India Hackathon, Local Hackathons.

- Increase in pass percentage.

Table 2.1.1(a): Co-Curricular Activities for Bright Students

Sl. No	Participants	Year	Participants Details
1	Abhishek Hondale, Pratiksha Mashetty, Suriya Begum	2022-23	KSCST:46st Series Student Project Programme :AI-BASED EMOTION RECOGNITION FROM SPEECH/AUDIO FILE
2	Shrishail, Dayanand	2023-24	KSCST: 47st Student Project Programme: DEEP LEARNING BASED MULTI RETINAL DISEASESCLASSIFICATION
3.	Akshata, Ashwini Y	2023-2024	Attended Five days online work shop on AI ML organized by Sharnbasava University
4	Akshata	2023-2024	Presented paper titled "Develop ML model for Child Mind Institute-detect Sleep states" Organized by GNDEC, Bidar
5	Ashwini Y	2023-2024	Presented paper titled "Exploring Landscape of AIML" Organized by GNDEC, Bidar
6	Nagaraj Hatte, Madhukeshav & Ravikiran	2023-2024	Published paper entitled: "Deep Learning-based Model for Abdominal trauma Detection" Journal of Instrumentation and innovation sciences(MAT Journal))
7	Akshata, Ashwini Y, Nagaraj Hatte, Madhukeshav, Ravikiran, Shrishail & Dayanand	2023-2024	Attended 30days Internship Program on "Python and ML" at Prgyanan AI Bengaluru
8	Akshata, Ashwini Y	2023-2024	Certification course on "How AI drives ChatGPT learn by Microsoft Trainer and be certified @75% Discount
9	Ashwini Y	2023-2024	Internship course on "Plasmid in the domain of Artificial intelligence
10	Divyalaxmi, Basavashree, Shruti & Radhika	2022-2023	Attended SWAYAM Online Course certification on "Python Programming"

D. Quality of Classroom Teaching:

The following process explains the assessment, evaluation and revision of Teaching & Learning process.

- Teaching method: a well-planned teaching schedule is made before the commencement of the class. Dates, topics to be taught, reference books for that topics are included in the course plan.
- Lectures of one hour for theory courses, tutorial for complex theory courses and 3 hours per Laboratory course are conducted in a week.

E. Conduct of experiments (Observation in Lab)

Laboratory work demonstrates how theory can be verified by experiments through interpretation of results. Laboratory experiments have been prescribed by the University in line with the theory course covering the entire syllabus, so that students can gain practical knowledge.

- All laboratories are provided with the equipment necessary as per curriculum.
- Laboratory manuals are prepared for all the laboratories.
- Lesson plans are provided to the students regarding the schedule of conduct of experiments.
- Experiments are normally done in groups so that students learn to work in teams.
- Students are encouraged to learn interactively in the laboratory.
- Instructions are given to the students by the faculty with regard to conduct of experiments in the beginning of the lab and also regarding the safety measures to be taken during conduction of experiments.
- During conduct of experiments students are kept under supervision of faculty and assisted by instructor, with regard to sequence of steps to be followed and method of inference.
- Observations and results are verified at the end of the lab.

F. Continuous Assessment in the laboratory

Continuous Assessment on the laboratory work is done by the faculty in every lab session for 30 marks and Laboratory Continuous Internal Evaluation is for 20 Marks. Addition of these two is final Laboratory CIE Marks.

Assessment of Students' Performance in Laboratory for each Experiment:

Write UP	5 marks
Conduction	5 marks
Result	5 Marks
LAB record	10 marks
Viva	5 Marks
Total	30 marks

Table: 2.1.1(b) Rubrics for Laboratory Continuous Evaluation

Sl. No.	Criteria	Excellent	Good	Average	Poor
		5M	4-3M	2M	1M
1	Write-up (5 Marks)	Complete, well-structured write-up with aim, procedure, observations, calculations, and result clearly presented.	Mostly complete write-up with minor errors or missing details.	Partially complete write-up with noticeable errors or missing sections.	Incomplete or incorrect write-up with major missing components..
		5M	4-3M	2M	1M
2	Conduct of Experiment (5 Marks)	Performs experiment confidently with clear understanding and correct procedure, maintaining proper discipline.	Performs experiment with basic understanding and minor mistakes.	Limited understanding; needs frequent guidance and makes errors.	Unable to perform experiment properly; lacks understanding and requires continuous assistance.
		5M	4-3M	2M	1M

3	Result (5 Marks)	Accurate result with correct calculations and proper interpretation.	Minor errors in calculation or interpretation.	Partially correct result with noticeable errors.	Incorrect or missing result.
4	Viva (5 Marks)	Answers all questions confidently with strong conceptual clarity.	Answers most questions correctly with minor gaps.	Basic understanding but unable to explain clearly.	Unable to answer basic questions; very weak understanding.
		10M	9-7M	6-3M	2-1M
5	Record (10 Marks)	Neat, complete, and well-maintained record; all experiments documented properly.	Record is mostly complete but may lack neatness or consistency.	Incomplete record with several missing entries or poor organization.	Poorly maintained or largely incomplete record.
LAB IA					
		2M	1.5M	1M	0M
6	Write-up (2 Marks)	Complete and well-structured write-up with all required components.	Mostly complete with minor errors or missing details.	Partially complete; some important parts missing.	Incomplete or incorrect write-up.
7	Conduct of Experiment (2 Marks)	Performs experiment independently with correct procedure.	Performs with minor mistakes or minimal guidance.	Requires guidance; shows partial understanding.	Unable to perform experiment properly.
8	Result (2 Marks)	Accurate result with correct calculations.	Minor errors in calculation or result.	Partially correct result with noticeable errors.	Incorrect or missing result.
		4M	3-2M	1M	0M
9	Viva (4 Marks)	Answers confidently with clear conceptual understanding.	Answers most questions correctly with minor gaps.	Basic understanding but lacks clarity.	Unable to answer basic questions.



LINGARAJ APPA ENGINEERING COLLEGE, BIDAR
Department of Electronics and Communication Engineering

Course Title: Communication LAB
 Semester: IV

Course Code: 21ECL46

Sl no	USN	Write UP (5 Marks)	Conduction (5 Marks)	Result (5 Marks)	Lab Record (10 Marks)	Viva -Voce 5 marks)	Total 30 (marks)
1	3LA21EC001	5	5	5	10	4	29
2	3LA21EC003	5	5	5	9	3	27
3	3LA21EC004	5	5	5	10	4	29
4	3LA21EC005	5	5	5	10	3	28
5	3LA21EC006	5	5	5	10	4	29
6	3LA21EC007	5	5	5	10	4	29
7	3LA21EC008	5	5	5	10	4	29
8	3LA21EC009	5	5	5	10	3	28
9	3LA21EC011	5	5	5	10	3	28
10	3LA21EC012	5	5	5	9	3	27

P. P.
 Course-co-ordinator

[Signature]
 HOD
 HEAD OF DEPARTMENT
 Department of Electronics
 & Communication Engineering
 Lingaraj Appa Engineering College
 Gornalli, BIDAR-585403.

Figure 2.2.1(l): Sample Laboratory Continuous Assessment sheet

Students' Laboratory Continuous Internal Evaluation:

Write up	2 marks
Conduction of experiments	2 marks
Result with Procedure Knowledge	2 marks
Viva- Voce	4 marks

Faculty Incharge for the laboratory will conduct 2 tests for 10 marks

The sum of laboratory continuous assessment marks(30 marks) and 2 laboratory CIE tests marks(20 marks) are the final CIE marks for the laboratory course.

Table: 2.1.1(c) Rubrics for Assessment of Students' Performance in Laboratory for each Experiment:

Criteria	Excellent (Full Marks)	Good	Average	Poor
Write-Up (2)	Complete, neat, correct theory & procedure (2marks)	Minor errors, mostly clear (1-1.5Marks)	Basic content, missing details(1M)	Incomplete / unclear

Conduction of Experiment (2)	Performs independently with correct setup(2marks)	Few mistakes, minimal help (1-1.5Marks)	Needs guidance (1M)	Unable to perform (Zero marks)
Result & Procedure Knowledge (2)	Accurate result with clear understanding of procedure(2marks)	Minor errors, fair understanding (1-1.5Marks)	Basic result, limited understanding (1M)	Incorrect / no understanding (Zero marks)
Viva-Voce (4)	Answers confidently with strong conceptual clarity 4 marks	Good answers, minor gaps (3-2 Marks)	Basic answers (1 marks)	Unable to answer (Zero marks)

G. Students feedback on teaching learning process and action taken

Feedback from students is collected for all courses.

- Student feedback is taken once during the semester, after one 1ST CIE Test
- Questionnaire of feedback is based on parameters like coverage of COs communication skill etc.
- Feedback forms are analyzed based on the all the parameters mentioned.

Feedback collection process:

- Feedback is collected. All the students participate in the feedback process.
- Discussion with the concerned course faculty regarding the feedback given by students is done by HOD. The HOD counsel and motive the concerned faculty for improvement in teaching quality by attending FDP/workshops.
- The concerned course faculty is advised to go through video lectures like by NPTEL etc.

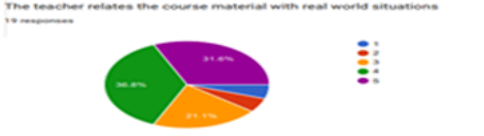
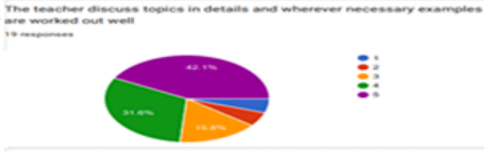
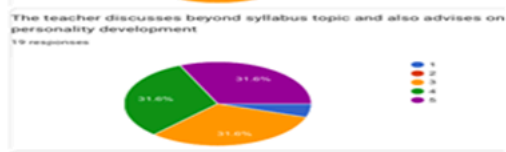
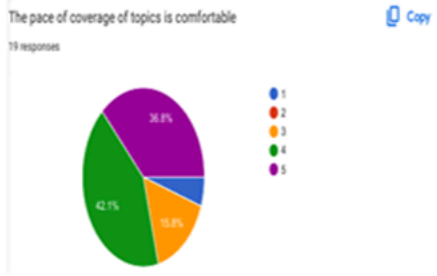
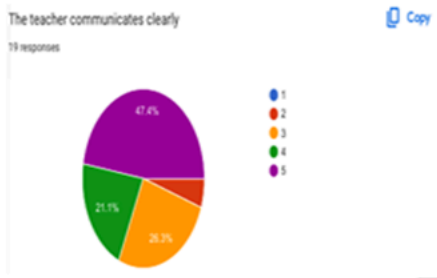


Figure 2.1.1 (m): Feedback Screen shorts

2.2 Quality of Student Capstone Project (25)

A. Identification of projects and allocation methodology to faculty

The major project holds significant importance as it represents the culmination of all theoretical and laboratory courses. These projects are typically interdisciplinary, incorporating appropriate design complexities, constraints, and a realistic approach. The assessment of major projects often reflects the attainment of all Program Outcomes (POs).

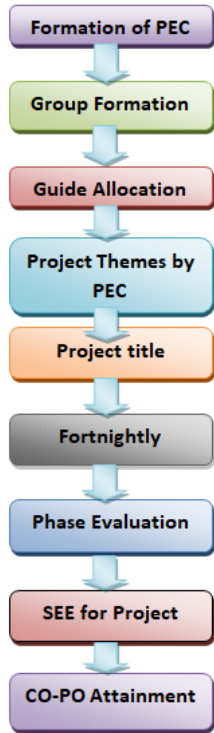


Figure 2.2.1 (a): Flow Chart for Project Process

Project batches formation:

- Project coordinator and project Evaluation Committee (PEC) are constituted by the HOD of the department.
- Project batches (2 to 4 members) will be formed based on academic performance, considering students SGPA and CGPA. Each team will comprise a mix of students from different SGPA & CGPA Scores, ensuring a diverse combination of academic strengths.
- A list of faculty members with their areas of specialization will be provided to students.
- The project batches are finalised by the project evaluation committee.

Guide allocation:

- Project batches must submit three guide preferences for their project.
- Guides will be assigned based on student preferences, considering availability.
- If the allocation for the first preference guide is complete, then the project group will be assigned a guide from their second preference. If the second preference allocation is also full, a guide from the third preference will be assigned.
- This process continues until all project groups are assigned a guide.
- Once finalized, the project batches and guide allotment list is displayed on the notice board.

Project identification:

- Project Coordinator will prepare themes based on various fields of Electronics and Communication in consultation with PEC members and project guides.
- The list of themes will be displayed on the notice board.
- Students should select topics aligned with the proposed themes and finalize them in consultation with their guide.
- A two-week period is given for students to choose their project title. The finalized project topic must be submitted to the Project Coordinator in the prescribed format.

B. Types and Relevance of The Project And Their Contribution Towards Attainment Of POs, PSOs and SDGs

The project titles selected by students, in consultation with their guides, must align with the Program Outcomes (POs) and Program-Specific Outcomes (PSOs). Each project title should be systematically mapped to the relevant POs and PSOs to ensure alignment with the programs objectives. PEC is formed comprising 2 to 3 faculty members to evaluate the project. Faculties as examiners shall be from the domain of the project. The list of major projects with their relevance to PO and PSOs and SDG is given in the below table.

Table 2.2.1(a) List of Projects completed in the year 2024-2025

Sl. No.	Project Title	Relevance to POs	Relevance to PSOs	Type of Project	SDGs
1	Design of Automatic Nutrition system for Hydroponic Plants with an IOT Based NODE-MCU Microcontroller	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO10, PO11	PSO3	Application Based	2,6,9,11,12
2	Design of Charge Pump based Phased Locked Loop for Medical applications	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO10, PO11	PSO3	Application Based	3,4,9,10
3	CMOS design and Implementation of High Speed and stable 1KB SRAM cell for space related Applications	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO10, PO11	PSO3	Application Based	4,9,11,13,17
4	Automatic Accident detection and Ambulance rescue System- SMART BIOs services Using Arduino	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO10, PO11	PSO3	Application Based	3,9,10,11,17
5	GPS controlled Environment Monitoring Robotics System Based on IOT	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO10, PO11	PSO3	Application Based	6,9,11,13,15
6	RF -ID Based Attendance and Monitoring System	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO10, PO11	PSO3	Application Based	4,9,10,16
7	OTP Based Ration Distribution System based ON IOT	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO10, PO11	PSO3	Application Based	1,2,9,10,16

8	GSM based E Notice Based	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO10, PO11	PSO3	Application Based	4,9,11,12
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Table 2.2.1(b) List of Projects completed in the year 2023-2024

Sl.No.	Project Title	Relevance to POs	Relevance to PSOs	Type of Project	SDG
1	Develop Machine learning Model for child institute detect	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO10, PO11	PSO3	Application Based	3,4,5,10,16
2	Deep Learning Based multi retinal diseases Classification	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO10, PO11	PSO3	Application Based	3,4,9,10
3	Deep learning Based model for abdominal trauma detection using KERSCV	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO10, PO11	PSO3	Application Based	3,9,10,17

Table 2.2.1(c) List of Projects completed in the year 2022-2023

Sl.No.	Project Title	Relevance to POs	Relevance to PSOs	Type of Project	SDG
1	AI-Based Emotion Recognition From Speech/Audio File	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO10, PO11	PSO3	Application Based	3,4,9,10,16
2	AI-Based Text To Video Generation	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO10, PO11	PSO3	Application Based	4,5,8,9,10

c. Process for monitoring and evaluation

- Project will follow a structured approach to ensure thorough evaluation.

- Project Evaluation will be conducted by the respective project guides and PEC members.
- The assessment will be based on design, testing and result analysis, presentation, viva and adherence to the prescribed report format.
- The Project Coordinator will record the marks awarded during the evaluation.

D. Process to assess individual and team performance

- The project guides and PEC members will assess both individual and team performance for each project batch.
- Evaluations follow predefined rubrics to ensure fairness, assessing individual performance based on presentation, communication skills, and report quality.
- Team performance is evaluated based on project objectives, successful outcomes, and collaboration, with marks allocated according to the established rubrics.

Table 2.2.1(d) Project work CIE Scheme

SI. No.	Evaluation Criteria	Marks
1	Project Work / Report	50
2	Project Presentation Skills	25
3	Question & Answer Session (Viva)	25
4	TOTAL	100

Split up	Rubrics	Marks	
Report (50 Marks)	Content Development	Abstract/ Synopsis Write-up	10
		Selection of Topic/ Relevance of the subject to concerned discipline	5
		Problem Identification	5
		Objectives and Methodology	5
	Problem-Oriented Exposition	Breadth of Literature Survey (Papers/Sites/Sources Surveyed)	10
		Documentation/ Systematic Approach	10
		Results (with inference, Conclusions, etc.)	5
Project Presentation Skill (25 Marks)	Quality of preparation of presentation	5	
	Communication Skills	5	
	Technical knowledge and awareness	5	
	Individual involvement	10	
Question and Answer Session (Viva- Voce) (25 Marks)	Questions relating to fundamentals and concepts	10	
	The clarity in answering the questions	5	
	The understanding ability of the questions asked	5	
	Attitude towards the question asked	5	
Total Marks		100	

Table 2.2.1(e): Rubrics for Project work

Sl. No.	Criteria	Excellent	Good	Average	Poor
Project Work (50)					
Content Development(25Marks)					
1	Abstract/ Synopsis Write-up (10M)	Clear, concise, and comprehensive summary covering all key aspects (10-9 M)	Covers most aspects with minor gaps.(8-6 M)	Basic summary; lacks clarity or completeness (5-3M)	Incomplete or unclear synopsis. (2-1M)
2	Selection of Topic / Relevance (5 Marks)	Highly relevant, innovative, and aligned with discipline(5M)	Relevant with some originality(4M)	Moderately relevant; limited originality(3-2)	Irrelevant or poorly chosen topic (1M)
3	Problem Identification (5 Marks)	Problem clearly defined and well-justified.(5M)	Problem identified with minor gaps in clarity.(4M)	Problem vaguely defined.(3-2)	Problem not clearly identified. (1M)
4	Objectives and Methodology (5 Marks)	Clear objectives with well-defined methodology.(5M)	Objectives clear; methodology adequate.(4M)	Objectives/methodology partially defined.(3-2M)	Unclear or missing.(1M)
Problem-Oriented Exposition(25Marks)					
5	Literature Survey (10 Marks)	Extensive, relevant, and well-analyzed sources.(10-9M)	Good coverage with minor gaps.(8-6M)	Limited sources; basic understanding.(5-3M)	Inadequate or irrelevant survey. (2-1M)
6	Documentation / Systematic Approach (10 Marks)	Well-organized, logical, and professional documentation. (10-9M)	Mostly organized with minor issues.(8-6M)	Some structure but lacks consistency.(5-3M)	Poorly organized or incomplete. (2-1M)
7	Results (Inference & Conclusions) (5 Marks)	Clear, accurate results with strong analysis and conclusions.(5M)	Results correct with minor interpretation gaps.(4M)	Basic results; weak analysis.(3-2M)	Incorrect or missing results. (1M)
Project Presentation Skill (25 Marks)					
8	Quality of Presentation (5 Marks)	Well-designed, clear, and engaging slides.(5M)	Good structure with minor issues. (4M)	Basic slides; lacks clarity/design.(3-2M)	Poorly prepared presentation. (1M)
9	Communication Skills (5 Marks)	Clear, confident, and effective communication.(5M)	Generally clear with minor hesitation.(4M)	Limited clarity; lacks confidence.(3-2M)	Poor communication.(1M)
10	Technical Knowledge (5 Marks)	Strong understanding of concepts and subject.(5M)	Good understanding with minor gaps.(4M)	Basic knowledge only.(3-2M)	Weak understanding.(1M)
11	Individual Involvement (10 Marks)	Highly active, significant contribution.(10-9M)	Good participation.(8-6M)	Moderate involvement.(5-3M)	Minimal contribution(2-1M)
Viva-Voice (25 Marks)					
12	Fundamental & Conceptual Questions (10 Marks)	Answers accurately with deep understanding.(10-9M)	Mostly correct answers.(8-6M)	Basic answers with gaps.(5-3M)	Unable to answer properly(2-1M).
13	Clarity in Answering (5 Marks)	Clear and precise answers.(5M)	Mostly clear.(4M)	Some confusion.(3-2M)	Unclear responses.(1M)
14	Understanding Ability (5 Marks)	Quickly understands questions. (5M)	Understands with minor clarification.(4M)	Needs repetition.(3-2M)	Difficulty understanding.(1M)
15	Attitude (5 Marks)	Confident, positive, and professional.(5M)	Good attitude.(4M)	Neutral or slightly hesitant.(3-2M)	Poor attitude or lack of interest. (1M)

E. Quality of completed projects/working prototypes

Projects are selected by the KSCST and financial aids are sanctioned for further development of the projects in consultation of the project guides.

KSCST Sanctioned Projects:

The Karnataka State Council for Science and Technology (KSCST) Student Project Program (SPP) promotes research and innovation among students by providing support for projects that address societal, industrial, and technological challenges. It fosters creativity, skill development, and industry-academia collaboration, contributing to technological advancement in Karnataka. List of projects which are approved for sponsorship are shown in table 2.2.1(e).

Table 2.2.1(f) List of project proposals approved for sponsorship under KSCST SPP

Sl. No.	Project No	Project Title	Name of the Guide	Name of the Students	Amount Sanctioned
AY 2024-2025					
1	48S_BE_0801	AUTOMATIC ACCIDENT DETECTION AND AMBULANCE RESCUE SYSTEM - SMART BIOS SERVICES USING ARDUINO	Dr.Sharanbasa ppa Shetkar	Ms.Priyanka, Ms. Attoffa Jabeen, Ms. Archana, Mr. Pavan	4500
2	48S_BE_2309	DESIGN OF A CHARGE-PUMP BASED, PHASE LOCKED LOOP (PLL) FOR MEDICAL APPLICATIONS	Dr.Sagarkumar Buyya	Mr. Sai Prassan, Mr.Vinayak Ghatge, Ms. Divya SB, Ms. Sandhyarani	4500
AY 2023-2024					
1	47S_BE_4704	DEEP LEARNING BASED MULTI RETINAL DISEASES CLASSIFICATION	Dr.Sharanbasa ppa Shetkar	Mr.Dayanand, Mr.Shrishail	5000
AY 2022-2023					
1	46S_BE_4915	AI-BASED EMOTION RECOGNITION FROM SPEECH/AUDIO FILE	Dr.Sharanbasa ppa Shetkar	Mr.Abhishek, Ms.Madhu	5000

F. Evidences of papers published/ Awards received by projects

Evidences of awards received by the projects are displayed through photos and certificates, highlighting the accomplishments. These documents showcase the recognition and success achieved by the students in various academic and project exhibition, paper publication and paper presentation in other colleges.



Figure 2.2.1(b). Photos of paper published journal and presentation in conference and project Exhibition

Table 2.2.1(g). List of projects Published in the journals.

Sl. No.	Project Title	Name of the Guide	Name of the Students	Journal Name
AY 2024-2025				
1	GPS Controlled Environment Monitoring Robotic System Based On IOT	Prof. Chaya	Miss Ranjeeta, Miss Sumalata, Miss Swati, Mr Basavaraj	Journal Of Scientific Research And Technology
2	CMOS Design & Implementation Of High Speed & Stable 1KB SRAM Cell For Space Related Applications	Dr. Sagarkumar Buyya	Miss Sushma Reddy, Miss.Manikeshwari, Mr.Ganesh, Mr.Prashant D	Journal Of Scientific Research And Technology
3	Design Of A Charge-Pump Based, Phase Locked Loop(Pll) For Medical Applications	Dr. Sagarkumar Buyya	Mr.Vinayak, Miss Divya, Miss Sandyarani, Mr.Sai Prakash	Journal Of Scientific Research And Technology
4	Automatic Accident Detection And Ambulance Rescue System Using Smart Bios Services And Arduino	Dr. Sharanbasappa Shetkar	Miss Attoffa jabeen, Miss Archana, Mr.Pavan, Miss Priyanka	Journal Of Scientific Research And Technology
5	RFID Based Attendance And Monitoring System	Dr. Sharanbasappa Shetkar	Mr.Subhash, Mr.Premkumar, Miss Vijaylaxmi, Miss Prithviraj	Journal Of Scientific Research And Technology
6	GSM Based E-Notice Board	Dr. Basavalinga Swamy	Mr.Darshan, Mr.Nagesh, Mr.Parameshwarr eddy	Journal Of Scientific Research And Technology
AY 2023-2024				
1	Deep Learning-based Model for Abdominal Trauma Detection	Dr. Basavalinga Swamy	Mr. Madhukeshav Mr. Nagaraj Mr. Ravikiran	Journal of Instrumentation and Innovation Sciences.

2.3 Internship/Industrial Training (10)

2.3.1. Internship

The internship or industrial training is a mandatory component aimed at providing practical exposure to students in their respective domains. Students are required to complete a minimum duration of 15 weeks, during 8th semester and the internship must be carried out continuously without any major breaks. The primary objective is to bridge the gap between theoretical knowledge and real-world industrial practices by allowing students to work in industries, companies, research organizations, or relevant institutions.

The internship process begins with the **identification of a suitable organization** related to the Electronics, communication systems, embedded systems, VLSI, signal processing, AIML and IoT. After selecting the organization, students must obtain **prior approval from the department or faculty guide**, along with a formal permission letter from the college. Once approved, students undergo the internship where they are expected to actively participate in assigned tasks, projects or training activities while adhering to the rules and regulations of the organization.

During the internship period, students must maintain a **daily logbook or diary** documenting their activities, tasks performed and skills acquired. After successful completion, students are required to collect an **internship completion certificate** from the organization, clearly mentioning the duration and nature of work. Subsequently, students must prepare a **detailed internship report** that includes the organization profile, work carried out, technical knowledge gained and overall learning outcomes.

Finally, the internship is evaluated by the department based on the **report submission, presentation/viva voce and certificate**, this process ensures that students gain hands-on experience, improve technical and professional skills and enhance their employability in alignment with industry requirements.

Table 2.3.1(a) Internship CIE Marks Allocation

Sl. No.	Evaluation Criteria	Marks
1	Able to Formulate and Conduct Research Problem	20
2	Able to design and develop solution to the problem	20
3	Able to analyze and solve the complex problem	20
4	Able to plan, execute and implement the project	20
5	Able to write effective technical report and demonstrate through presentation	20
Total		100

Table 2.3.1 (b) Internship CIE Marks Rubrics

Sl. No.	Component	Excellent (4)	Good (3)	Average (2)	Poor (1)
1	Able to Formulate and Conduct Research Problem	Clearly defines problem, strong research methodology, well-justified (20 marks)	Defined problem with minor gaps (15-19 Marks)	Basic problem understanding (5-15 Marks)	Problem unclear or not defined (0-5Marks)
2	Able to design and develop solution to the problem	Innovative, complete and efficient solution (20 marks)	Good design with minor gaps (15-19 Marks)	Basic design (5-15 Marks)	Incomplete/poor solution (0-5Marks)
3	Able to analyze and solve the complex problem	Deep analysis with accurate results (20 marks)	Good analysis (15-19 Marks)	Basic analysis (5-15 Marks)	No proper analysis (5-15 Marks)

4	Able to plan, execute and implement the project	Well-planned, executed successfully (20 marks)	Minor issues in execution (15-19 Marks)	Basic planning/execution (5-15 Marks)	Poor/no execution (5-15 Marks)
5	Able to write effective technical report and demonstrate through presentation	Excellent report, clear presentation, confident answers (20 marks)	Good report/presentation (15-19 Marks)	Average communication (5-15 Marks)	Poor report/presentation (5-15 Marks)

Table 2.3.1 (c) List of Students Internship carried during 2024-2025

Sl no	USN	NAME	Topics	Institute/Organization	POs and PSos
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1	Adinath	3LA21EC001	Java Full stack Development	Pentagon Space, Bengaluru	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PSO2, PSO3
2	Archana	3LA21EC003	Embedded system	Vector India, Hyderabad	
3	Attoffa Jabeen	3LA21EC004	Embedded system	Cranes, Bengaluru	
4	Darshan	3LA21EC005	Detection of Fake Bills Using EDA and Machine Learning	Ze Learning Lab , Bengaluru	
5	Divya	3LA21EC006	JAVA	GQT, Bengaluru	
6	Ganesh	3LA21EC007	Java Full stack Development	Q-Spider, Bengaluru	
7	K Vaishnavi	3LA21EC008	Java Full stack	Robomanathan Private Ltd Bengaluru	
8	M Divya	3LA21EC009	Embedded system	Cranes, Bengaluru	
9	ManikEshwari	3LA21EC011	Mechatronics, (Bajaj Engineering Skill training)	BEST @ PESU, Bengaluru	
10	Md Ashfaq A	3LA21EC012	Internet of Things	Five seven it ,Kalaburgi	
11	Md In Khan	3LA21EC014	Internet of Things	Five seven it kalaburagi	
12	Nagesh	3LA21EC015	Data Analytics	Ze Learning Lab Bengaluru	
13	Premkumar	3LA21EC017	Java Full stack Development	Pentagon Space , Bengaluru	
14	Prithviraj	3LA21EC018	Java Full stack Development	Pentagon Space , Bengaluru	
15	Priyanka	3LA21EC019	Embedded system	Vector India, Hyderabad	
16	Ranjeeta	3LA21EC020	Mechatronics ,(Bajaj Engineering Skill training)	BEST @ PESU, Bengaluru	
17	Sai Prassana	3LA21EC021	Java Full stack	Robomanathan Private Ltd Bengaluru	
18	Sandyarani	3LA21EC022	Core Java	AI Robosoft Bengaluru	

19	Sanjana	3LA21EC024	Core Java	GQT Bengaluru
20	Subhash	3LA21EC027	Java Full stack	Robomanathan Private Ltd Bengaluru
21	Sudhakar	3LA21EC028	Java Full stack Development	Pentagon Space , Bengaluru
22	Sumalata	3LA21EC029	Embedded system	Vector India, Hyderabad
23	Sushma Reddy	3LA21EC030	Mechatronics ,(Bajaj Engineering Skill training	BEST @ PESU, Bengal uru
24	Swati S	3LA21EC031	Data Analytics	Ze Learning Lab Bengaluru
25	Vijaylaxmi	3LA21EC032	Java Full stack Development	Q-spider Bengaluru
26	Vinayak G	3LA21EC033	E-Commerce Application Using Core JAVA	GQT Bengaluru
27	Basavaraj	3LA22EC400	Java Full stack Development	Pentagon Space , Bengaluru
28	Parameshwar Reddy	3LA22EC402	Java Full stack Development	Q-spider Bengaluru
29	Pawan	3LA22EC403	Java Full stack	Robomanathan Private Ltd Bengaluru
30	Prashant	3LA22EC404	Java Full stack Development	Pentagon Space , Bengaluru

Table 2.3.1 (d) List of Students Internship carried during 2023-2024

SI No	Name	USN	Topic	Institute/ Organization	POs ands PSOs
1.	Akshata Biradar	3LA20EC001	Development of Recommendation system for Movies and deployment over Stremalit Cloud	Pragyan AI Bengaluru	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PSO2, PSO3
2	Ashwini	3LA20EC002			
3	Dayanand	3LA20EC003			
4	Madukeshav	3LA20EC004			
5	Nagaraj	3LA20EC005			
6	Shivani	3LA20EC006			
7	Shrishail	3LA20EC008			
8	Ravikiran	3LA20EC400			

Table 2.3.1 (e) List of Students Internship carried during 2022-2023

SI No	Name	USN	Topic	Institute/ Organization	POs ands PSOs
1.	Abhishek	3LA19EC001	Java Full stack Development	Pragyan AI Bengaluru	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO11, PSO2, PSO3
2	Madhu	3LA19EC002	Java Full stack Development		
3	Pragati	3LA19EC003	Java Full stack Development		
4	Pratiksha	3LA19EC004	Facial Expression Detection Using Deep Learning Model and Comparison of CNN_Model,VGG_ 19 and RESNET- 50 Model		
5	Suriya Begum	3LA19EC005	Sports Analysis		

2.3.2 Industrial Training

A. Industrial training/visit for students

- The department organizes industrial visits for students once in a year to relevant organizations/companies to enable the students to experience the practical implementation of theoretical knowledge in real world. This gives them an insight of exposure to the industrial environment and the work culture ethics in Industries. The visits also help the students to learn about people management, which is essential in any organization. Some of the industries visited by the students are given in Table 2.3.2(a).

Table 2.3.2 (a). Details of Industry Visits

Sl. No.	Date	Academic Year	Name of the Industry	No of Students Visited the Industry	Learning Outcome
1	30/09/2024	2024-25	ISRO (U R Rao Satellite Center) Bengaluru	52	The industrial visit to ISRO, Bangalore, enhanced students technical knowledge, practical exposure, career awareness and motivation to contribute to Indias space research and engineering innovations.
2	01/10/2024	2024-25	Daily Day IE Cream, Bangalore	52	Students got to know the real-world challenges in food manufacturing. Gained insights into innovation in flavours, texture improvements and customer preferences. Learning about marketing and branding strategies in the competitive dairy industry.
3	27/11/2025	2025-2026	National Remote Sensing Centre (NRSC) Training and outreach , Hyderabad	52	Students gained a practical understanding of how Earth observation satellites acquire data and how NRSC's ground stations receive and manage this information. They understood the complete chain of data processing – from raw satellite data to corrected image products and thematic maps – and its importance for accurate analysis. Students became aware of multiple real-life applications of remote sensing and GIS in agriculture, water resources, forestry, urban planning, disaster management and environmental monitoring.



Figure: 2.3.1 (a) Industry visit to ISRO (U R Rao Satellite Centre), Bangalore.



Hullisiddegowdanadoddi, Karnataka, India

MC9R+MRX, Hullisiddegowdanadoddi, Karnataka 562112, India

Lat N 12° 40' 8.5044" Long E 77° 26' 32.0604"

01/10/24 05:03 PM GMT +05:30

GPS Map Camera

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Figure: 2.3.1 (c) Visit of National Remote Sensing Centre (NRSC) Training and outreach , Hyderabad

Impact Analysis of Industrial Training

The industry exposure helps a lot in personality development of the students. For many students it is their first experience of staying away from home on their own.

- i. They are also exposed to industry culture and learn to communicate with their industry mentors and perform tasks assigned within the given time frame in an industrial setting. The change in their personality is evident when they come back from the industry. They are more confident and more articulate.
- ii. Some students get their final year major project ideas from their industry training. They continue to be in touch with their industry mentor and many works on the project under their joint supervision. This is permitted by the Department.
- iii. These incentives help to raise the quality of the final year major project.

Table: 2.3.2 (b) List of Projects Carried out after Industry Institute Interaction Programs

Sl. No.	Name of the Project	Team Members	Domain	Academic Year
1	Deep Learning-based Model for Abdominal Trauma Detection	Mr. Madhukeshav Mr. Nagaraj Mr. Ravikiran	AIML	2023-2024
2	Deep Learning Based Multi Retinal Diseases Classification	Mr. Dayanand Mr. Shrishail	AIML	2023-2024

2.4 Seminar and Mini/Micro Projects (10)

Seminar and Mini Projects are introduced to enhance students' analytical, presentation and problem-solving skills through independent and collaborative learning.

In this component, students are required to select a recent and relevant technical topic (for seminar) or identify a small-scale practical problem (for mini project) related to their branch of study.

The process begins with topic selection in consultation with a faculty coordinator, followed by literature survey, problem identification and objective formulation.

For seminars, students study research papers or emerging technologies and present their understanding using presentations and reports.

For mini projects, students proceed further by designing, developing and demonstrating a basic working model or software solution.

During the execution phase, students are expected to apply fundamental engineering concepts, conduct analysis and implement feasible solutions within their scope and duration. They must prepare a technical report documenting the methodology, results and conclusions and deliver a presentation followed by viva voce.

Evaluation Procedure:

The CIE marks for the seminar shall be awarded (based on the relevance of the topic, presentation skill, participation in the question and answer session and quality of report) by the committee constituted for the purpose by the Head of the Department. The committee shall consist of three senior faculty members from the department.

Table 2.4. (a) Marks distribution for CIE of the Seminar

Sl. No.	Evaluation Criteria	Marks
1	Seminar Report	50
2	Presentation skill	25
3	Question and Answer	25
Total		100

Table 2.4. (b) Seminar CIE marks Rubrics

Sl. No.	Component	Excellent	Good	Average	Poor
1	Seminar Report	Well-structured, in-depth analysis, recent references, no errors (50 Marks)	Good content with minor issues (31-49 Marks)	Basic content, limited references (16-30 Marks)	Poor/incomplete report (1-15 Marks)
2	Presentation skill	Clear, confident, well-organized, effective visuals (25 marks)	Good delivery with minor issues (16-24 marks)	Average explanation (11-15 Marks)	Poor communication (1-10Marks)
3	Question and Answer	Answers confidently with strong conceptual clarity(25 marks)	Answers most questions correctly (16-24Marks)	Basic understanding (11-15Marks)	Unable to answer (1-10Marks)

Table 2.4. (c) Academic Year 2024-2025 students delivered seminar topics with POS and PSOs

Sl. No.	USN	NAME	Seminar Topics	POs and PSOs
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1	Adinath	3LA21EC001	A research review on CMOS Mixer
2	Archana	3LA21EC003	AI based Embedded system
3	Attoffa Jabeen	3LA21EC004	Embedded system in Automotive
4	Darshan	3LA21EC005	"Predictive Maintenance Using Data Analytics in Electronics
5	Divya	3LA21EC006	Transmission Energy for artificial heart
6	Ganesh	3LA21EC007	IOT Based Automated Hydrophinics System
7	K Vaishnavi	3LA21EC008	Brain-Computer Interfaces (BCIs)
8	M Divya	3LA21EC009	Embedded system in Robotics Design and implementation
9	ManikEshwari	3LA21EC011	A research review on Low Noise amplifier
10	Md Ashfaq A	3LA21EC012	A research review on Multigate MOSFET Technology
11	Md In Khan	3LA21EC014	Biomedical signal processing
12	Nagesh	3LA21EC015	ZigBee Wireless System
13	Premkumar	3LA21EC017	Artificial Intelligence Digital Audit System under Machine Learning Technology
14	Prithviraj	3LA21EC018	Artificial passenger
15	Priyanka	3LA21EC019	Laser communication systems
16	Ranjeeta	3LA21EC020	3-D optical Data storage
17	Sai Prassana	3LA21EC021	Electronic ink technology
18	Sandyarani	3LA21EC022	Green Electronics
19	Sanjana	3LA21EC024	Hyper Loop Technology
20	Subhash	3LA21EC027	Combining AI and block chain for improved cyber security
21	Sudhakar	3LA21EC028	6G mobile technology
22	Sumalata	3LA21EC029	Deep fake detection: identifying manipulating videos using AI
23	Sushma Reddy	3LA21EC030	A research review on Power divider

PO1, PO2, PO3,
PO8,PSO3

24	Swati S	3LA21EC03 1	Nano Robotics
25	Vijaylaxmi	3LA21EC03 2	Railway tracking communication system
26	Vinayak G	3LA21EC03 3	Internet of nano things
27	Basavaraj	3LA22EC40 0	Mobile -train-radio communication system
28	Parameshwar Reddy	3LA22EC40 2	Plastic Solar Cells
29	Pawan	3LA22EC40 3	Hardware Security
30	Prashant	3LA22EC40 4	A research review on RISC V Architecture

Table 2.4. (d) Academic Year 2023-2024 students delivered seminar topics with POS and PSOs

Sl no	USN	NAME	Seminar Topics	POs and PSOs
1	Akshata Biradar	3LA20EC001	Everything you need to know about Chartbots	PO1, PO2, PO3, PO8, PSO3
2	Ashwini	3LA21EC002	Garbage classification Using AI	
3	Dayanand	3LA20EC003	Cloud computing	
4	Madukeshav	3LA20EC004	"IOT security"	
5	Nagarj	3LA20EC005	The impact of artificial intelligence and machine learning on healthcare	
6	Shivani	3LA20EC006	IOT Based Automated Hydrophynics System	
7	Shrishail	3LA21EC008	Biometric Voting Machine	
8	Ravikiran	3LA21EC400	Blue Brain	

Table 2.4.1 (e) Academic 2022-2023 students delivered seminar topics with POS and PSOs

Sl no	USN	NAME	Seminar Topics	POs and PSOs
1	Abhishek H	3LA19EC001	Bionic Hand	PO1, PO2, PO9, PO8 PSO3
2	Madhu H	3LA19EC002	LI-FI in VLC	
3	Pragati	3LA19EC003	Electronic Paper Display	
4	Pratiksha	3LA19EC004	Biological Computers	
5	Suriya Begum	3LA19EC005	Face Recognition Technology	

Mini-project work: Based on the abilities of the students and recommendations of the faculty coordinator, a single discipline or a multidisciplinary, Mini- project can be assigned to an individual student or to a group having not more than 4 students.

The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the Guide.

CIE procedure for Mini-project:

Table 2.4.(f) Mini-project of CIE marks distribution

Sl. No.	Evaluation Criteria	Marks
1	Evaluation of project report	50
2	Project presentation skill	25
3	Question and answer session	25
	Total	100

Table 2.4. (g) Mini-project of CIE marks Rubrics

Sl. No.	Criteria	Excellent	Good	Average	Poor
1	Project Work (50)	Well-structured, in-depth analysis, use of recent references, error-free (50-41 Marks)	Good content with minor issues (40-31 Marks)	Basic content with limited references (30-16 Marks)	Poor or incomplete report (15-1 Marks)
2	Presentation (25)	Clear, confident, well-organized presentation with effective visuals (25 -21Marks)	Good delivery with minor issues (20-16 Marks)	Average explanation, lacks clarity (15-11 Marks)	Poor communication and presentation (10-1 Marks)
3	Viva voce (25)	Answers confidently with strong conceptual clarity (25-21 Marks)	Answers most questions correctly (20-16 Marks)	Basic understanding with limited clarity (15-11 Marks)	Unable to answer questions (10-1 Marks)

Table 2.4. (h) Academic 2024-2025 students Mini projects topics with POS and PSOs

SL. NO.	USN	NAME	Mini Project Topics	POs and PSos
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B1	3LA22EC013	DIVYALAXMI	Distance Measurement Using Arduino And Ultrasonic Sensor
	3LA22EC045	VINAYSHREE	
	3LA22EC002	ADARSH	
	3LA22EC010	AVINASH	
B2	3LA22EC012	BIRADAR TRIVENI	Fire Fighting Robot
	3LA22EC027	SANDEEP	
	3LA23EC400	KANAKSHI	
	3LA22EC017	MOHAMMAD SHAHBAAZ	
B3	3LA22EC033	SHIVANI	Hijacked Wi-Fi: Inside The Evil Twin Phenomenon
	3LA22EC041	SURYA PRAKASH	
	3LA22EC031	SHASHANK	
	3LA23EC401	OMSAI	
B4	3LA22EC023	PALLAVI	Smart Gloves For Blind Person
	3LA22EC040	SUMAN	
	3LA22EC024	PARAMESHWAR	
	3LA22EC015	KIRAN	
B5	3LA22EC025	PRIYANKA	"Password - Based Smart Door Locking System"
	3LA22EC011	BASAVASHREE	
	3LA22EC016	MD SAHEIL PASHA	
	3LA22EC022	NIKHIL	
B6	3LA22EC026	RADHIKA	Wireless Notice Board Using Bluetooth And Arduino
	3LA22EC028	SANDHYA	
	3LA22EC032	SHASHANK	
	3LA22EC019	MOHAMMED FAIZAN ALI	
B7	3LA22EC042	SURYAWANSHI PRANAV	Accident Safety Project
	3LA22EC029	SANJANA BIRADAR	
	3LA22EC044	VEERESH	
	3LA22EC020	MOHD INZEMAM AHMED	
B8	3LA22EC004	AKASH	Automatic Railway Gate
	3LA23EC402	SUDAM	
	3LA22EC043	TEJASHWINI	
	3LA22EC001	ABHISHEK	
B9	3LA22EC009	ANJLI	Laser Home Security System
	3LA22EC030	SHAKTIDEVI	
	3LA22EC007	AMRATA	
	3LA22EC003	AGRE SHRADHA BASAWARAJ	

PO1,PO2,PO9,PO8,PSO2, PSO3

B10	3LA22EC038	SOUMYA SHREE	Heart Rate Monitor
	3LA22EC036	SHRUTI	
	3LA22EC046	VIVEK	
	3LA22EC034	SHRADHA	
B11	3LA22EC039	SUCHITRA	Radar Detection Using Ultrasonic Sensor, Arduino
	3LA22EC008	AMULYA	
	3LA22EC005	AKSHATA	
	3LA22EC014	HARSHITA	

Table 2.4. (i) Academic 2023-2024 students Mini projects topics with POS and PSOs

Sl no	USN	NAME	Mini project Topics	POs and PSos
B1	Adinath	3LA21EC001	"Smart Glass For Blind Person"	PO1,PO2,PO9,PO8,PSO2,PSO3
	Manikeshwari	3LA21EC011		
	Md. Ashafq A	3LA21EC012		
	Sushama Reddy	3LA21EC030		
B2	Divya	3LA21EC006	Distance measurement using Arduino Uno	
	Sai prasaana	3LA21EC021		
	Vinayk G	3LA21EC033		
	Swati S	3LA21EC031		
B3	Attofa	3LA21EC004	Arduino Ultra Sound Parking Sensor	
	Nagesh	3LA21EC015		
	Priyanka	3LA21EC019		
	Basawarj	3LA22EC400		
B4	Prithviraj	3LA21EC018	Gas leakage Detector using Arduino	
	Sandhyarani	3LA21EC022		
	Sanjana	3LA21EC024		
	Subhash	3LA21EC027		
B5	M.Divya	3LA21EC009	RGB Scrolling text Display LED Matrix	
	K.Vaishavai	3LA21EC022		
	Md .Inyak Khan	3LA21EC014		
	Sudhakar	3LA21EC028		
B6	Premkumar	3LA21EC017	Radar Using Ultra Sonic Sensor and Arduinio	
	Sumalata	3LA21EC029		
	Vijaylaxmi	3LA21EC032		
	Parameshwar Reddy	3LA22EC402		

Table 2.4.1 (j) Academic 2022-2023 students Mini projects topics with POS and PSOs

Sl no	USN	NAME	Mini project Topics	POs and PSOs
B1	Akshata Biradar	3LA20EC001	Movie Ticket Booking	PO1,PO2,PO9,PO8,PSO2,PSO3
B2	Ashwini Shrishila G	3LA21EC002 3LA21EC008	Audio signal Processing and Translation Using Python	
B3	Dayanand Nagarj	3LA20EC003 3LA20EC005	Amazon Clone Using HTML and CSS	
B4	Madukeshav and Ravikiran	3LA20EC004 3LA21EC400	Multifunctional Arduino Robot	
B5	Shivani	3LA20EC006	Online Voting System	

2.5 Case Studies and Real-Life Examples (10)

2.5.1 Case Study:

Table.2.5 (a): Sample Case Study Table

Sl .No.	Case Study Topic	Type	Complexity	POs	PSOs
1.	GaN Device Development	Focuses on advanced semiconductor technology (GaN) Involves conceptual understanding and application analysis	Moderate to High Complexity Requires understanding of: Semiconductor physics, Material comparison (Si, Ge, GaN) , Device structure (HEMT) Real-world applications (EVs, 5G, power electronics)	PO1, PO2, PO3, PO7, PO12	PSO1, PSO2

Case study: I

GaN Device Development

INTRODUCTION

Gallium Nitride (GaN) represents one of the most transformative breakthroughs in semiconductor technology, marking a decisive transition from conventional silicon-based systems toward high-performance, energy-efficient electronic architectures. Over the past few decades, the exponential growth in electronic applications—ranging from portable consumer devices to large-scale industrial systems—has created an urgent demand for materials capable of operating beyond the physical and performance limitations of traditional semiconductors. Silicon, despite its widespread use and mature fabrication ecosystem, is increasingly constrained by its relatively narrow band gap, limited breakdown voltage, and moderate thermal performance. These constraints become particularly significant in high-power, high-frequency, and high-temperature applications, where efficiency and reliability are critical.

In this context, GaN has emerged as a revolutionary material due to its wide band gap, superior electron mobility, and high thermal stability. Unlike silicon, GaN enables devices to function efficiently at higher voltages and frequencies while maintaining lower power losses. This capability is not merely an incremental improvement but represents a fundamental shift in how electronic devices are designed and optimized. The adoption of GaN has enabled engineers to achieve higher power densities, reduced system sizes, and improved overall efficiency, which are essential for modern technologies such as electric vehicles, renewable energy systems, and advanced communication networks.

GaN technology is playing a crucial role in addressing global challenges related to energy efficiency and sustainability. By reducing energy losses in power conversion systems, GaN devices contribute to lower energy consumption and reduced carbon emissions.

BACKGROUND OF SEMICONDUCTOR MATERIALS IN GaN

The development of Gallium Nitride (GaN) is deeply rooted in the evolution of semiconductor materials, which have transformed electronics over the past century. Understanding the background of GaN requires looking at how semiconductor technology progressed from elemental materials like silicon (Si) and germanium (Ge) to advanced compound semiconductors.

Initially, the semiconductor industry was dominated by silicon and germanium. Germanium was used in early transistors due to its high electron mobility, but it had poor thermal stability. Silicon soon replaced germanium because of its better thermal performance, abundance, and the ability to form a high-quality silicon dioxide (SiO₂) insulating layer. Silicon became the foundation for integrated circuits and remains the most widely used semiconductor material today.

However, as technology advanced, the limitations of silicon became apparent—especially in high-frequency, high-power, and high-temperature applications. This led to the exploration of compound semiconductors, formed by combining elements from different groups of the periodic table. Among these, III-V semiconductors (such as Gallium Arsenide (GaAs) and Gallium Nitride (GaN)) gained attention due to their superior electronic properties.

GaN belongs to the III-V group, formed by combining gallium (Ga) and nitrogen (N). Research on GaN began as early as the 1930s, but progress was slow due to difficulties in crystal growth and material quality. It was not until the late 20th century that significant breakthroughs occurred. One of the most important milestones was the development of high-quality GaN films using techniques like Metal-Organic Chemical Vapor Deposition (MOCVD).

WHY GO FOR GaN ?

Gallium Nitride (GaN) has emerged as one of the most important semiconductor materials in modern electronics, offering significant advantages over traditional materials like silicon (Si) and germanium (Ge). The decision to go for GaN is driven by its superior electrical, thermal, and physical properties, which make it highly suitable for next-generation high-performance applications.

One of the primary reasons to choose GaN is its wide bandgap (about 3.4 eV), compared to silicon's 1.1 eV. A wider bandgap allows GaN devices to operate at much higher voltages, temperatures, and frequencies without breaking down. This makes GaN ideal for high-power and high-frequency applications such as RF amplifiers, satellite communication, and radar systems.

Another key advantage of GaN is its high electron mobility and high electron saturation velocity. Electrons can move faster through GaN, enabling devices to switch more quickly. This results in higher efficiency and faster operation, especially in power electronics and communication systems. For example, GaN transistors are widely used in 5G base stations and fast wireless charging systems because they can handle high frequencies with minimal energy loss.

GaN also exhibits excellent thermal performance. It can withstand high temperatures and has good thermal conductivity, reducing the need for bulky cooling systems. This leads to smaller, lighter, and more compact designs. In power electronics, this translates to higher power density, meaning more power can be delivered in a smaller space.

Efficiency is another major factor. GaN devices have lower switching losses and conduction losses compared to silicon-based devices. This improves overall system efficiency, reduces energy consumption, and minimizes heat generation. As a result, GaN is increasingly used in energy-efficient systems such as electric vehicles (EVs), renewable energy converters (like solar inverters), and data centers.

Comparison of Silicon, Germanium, and Gallium Nitride (GaN)

Semiconductor materials form the backbone of modern electronics. Among them, Silicon (Si), Germanium (Ge), and Gallium Nitride (GaN) are widely studied and used for different applications due to their unique electrical and physical properties.

Silicon (Si) is the most commonly used semiconductor material in the electronics industry. It has a moderate bandgap of about 1.12 eV, which makes it suitable for operation at room temperature with stable performance. Silicon offers excellent thermal stability and forms a natural oxide layer (SiO₂), which is extremely useful in manufacturing MOSFETs and integrated circuits. Due to its abundance and cost-effectiveness, silicon dominates applications such as microprocessors, memory chips, and standard electronic devices. However, silicon has limitations in high-frequency and high-power applications due to its relatively lower electron mobility and breakdown voltage.

Germanium (Ge) was one of the first materials used in semiconductor devices. It has a smaller bandgap of about 0.66 eV, which allows higher electron mobility compared to silicon. This makes germanium faster in switching applications and suitable for high-speed devices. However, the small bandgap also results in higher leakage currents and poor thermal stability, especially at higher temperatures. Germanium devices are more sensitive to temperature changes and are less reliable under harsh conditions. Additionally, germanium lacks a stable native oxide layer like silicon, making fabrication more challenging. Today, germanium is mainly used in specialized applications such as infrared detectors and high-speed electronics.

Gallium Nitride (GaN) is a wide bandgap semiconductor with a bandgap of approximately 3.4 eV. This property gives GaN a significant advantage in high-power, high-frequency, and high-temperature applications. GaN devices can operate at much higher voltages and temperatures than silicon and germanium, with excellent efficiency and reduced energy losses. It also has high electron mobility and high breakdown electric field, making it ideal for power electronics, RF amplifiers, and 5G communication systems. GaN is widely used in applications like fast chargers, electric vehicles, radar systems, and satellite communication. However, GaN is more expensive and complex to manufacture compared to silicon.

In terms of performance comparison, silicon is best suited for general-purpose electronics due to its cost and reliability. Germanium excels in high-speed applications but suffers from thermal instability. GaN outperforms both silicon and germanium in extreme conditions, offering superior efficiency, higher power density, and faster switching capabilities.

Structure and Working Principle of GaN

GaN primarily crystallizes in a wurtzite crystal structure, which is a hexagonal arrangement of atoms. In this structure, each gallium (Ga) atom is bonded to three nitrogen (N) atoms, forming a strong covalent bond. The atoms are arranged in a tetrahedral coordination, giving the material high mechanical stability and strength.

In practical devices, GaN is often grown on substrates such as sapphire, silicon carbide (SiC), or silicon (Si) using techniques like Metal-Organic Chemical Vapor Deposition (MOCVD). A typical GaN device structure includes multiple layers as shown in below figure 2.5.1

STRUCTURE AND WORKING PRINCIPLE OF GALLIUM NITRIDE (GaN) HEMT

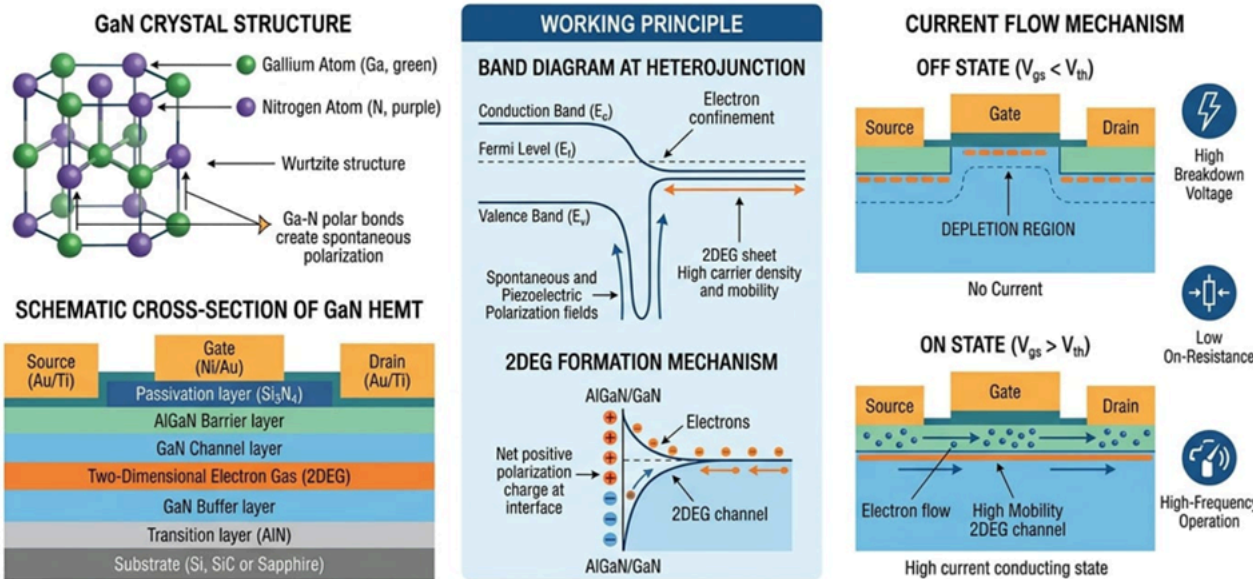


Figure 2.5(a): GaN device structure

A substrate layer (e.g., sapphire or SiC)

A buffer layer to reduce lattice mismatch

A GaN channel layer

An AlGaN barrier layer (in high-electron-mobility transistors)

The working principle of GaN devices depends on the type of application, but the most widely used example is the GaN HEMT used in power electronics and RF systems.

In an AlGaN/GaN HEMT, the difference in polarization between the AlGaN and GaN layers induces a high concentration of electrons at their interface without the need for heavy doping. This forms a 2DEG channel, which has very high electron mobility.

Because of GaN's wide bandgap (3.4 eV), the device can withstand high electric fields before breakdown. This allows GaN devices to operate at high voltages and temperatures. Additionally, the strong bonds in the crystal structure reduce energy loss, improving efficiency.

IMPACTS OF GaN TECHNOLOGY

Gallium Nitride (GaN) technology has had a transformative impact across multiple industries due to its superior electrical and thermal properties. Its adoption is reshaping how electronic systems are designed, making them more efficient, compact, and powerful. The impacts of GaN technology can be understood across energy, communication, transportation, and consumer electronics sectors.

One of the most significant impacts of GaN is in energy efficiency. GaN-based devices exhibit lower switching and conduction losses compared to traditional silicon-based components. This leads to reduced energy wastage and improved system performance. In power electronics, such as adapters, inverters, and power supplies, GaN enables higher efficiency, which is crucial for reducing global energy consumption and supporting sustainable technologies. Data centers, which consume vast amounts of electricity, benefit greatly from GaN by lowering power losses and cooling requirements.

GaN has also revolutionized the telecommunications industry, especially with the rollout of 5G technology. GaN transistors can operate at very high frequencies and power levels, making them ideal for radio frequency (RF) amplifiers used in base stations. This results in faster data transmission, improved signal strength, and better network reliability. As global demand for high-speed connectivity increases, GaN plays a key role in enabling next-generation communication systems.

In the automotive sector, particularly in electric vehicles (EVs), GaN contributes to higher efficiency and reduced size of power conversion systems. GaN-based chargers and inverters allow faster charging, improved battery performance, and lighter vehicle designs. This supports the shift toward sustainable transportation by enhancing the practicality and performance of EVs.

Another major impact is seen in miniaturization and power density. GaN devices can operate at higher frequencies, which allows the use of smaller passive components like capacitors and inductors. As a result, electronic systems become more compact and lightweight. This is especially important in applications such as aerospace, defense, and portable electronics, where space and weight are critical factors.

GaN technology has also transformed consumer electronics. Fast chargers for smartphones, laptops, and other devices now use GaN to deliver high power in a small form factor. These chargers are more efficient, generate less heat, and are significantly smaller than traditional silicon-based chargers, improving user convenience.

ADVANCED APPLICATIONS OF GaN

Gallium Nitride (GaN) has become a highly important semiconductor material due to its wide bandgap, high efficiency, and ability to operate at high frequencies, voltages, and temperatures. These properties enable GaN to be used in a wide range of advanced applications across multiple industries.

One of the most prominent applications of GaN is in power electronics. GaN-based transistors are widely used in power supplies, adapters, and inverters. They offer faster switching speeds and lower energy losses compared to silicon devices. This makes them ideal for applications such as fast chargers for smartphones and laptops, where compact size and high efficiency are essential. GaN chargers are now commonly used because they are smaller, lighter, and generate less heat.

In the field of telecommunications, GaN plays a crucial role in high-frequency and high-power applications. It is extensively used in radio frequency (RF) amplifiers for 4G and 5G base stations. GaN devices can handle high power levels while maintaining signal integrity, which improves network performance and data transmission speeds. This makes GaN essential for modern wireless communication systems.

Another major application is in electric vehicles (EVs) and automotive systems. GaN is used in onboard chargers, DC-DC converters, and traction inverters. Its high efficiency reduces energy losses, leading to longer battery life and improved vehicle performance. Additionally, GaN enables faster charging and reduces the overall size and weight of power systems in EVs.

GaN is also widely used in renewable energy systems. In solar power systems, GaN-based inverters convert DC power generated by solar panels into AC power more efficiently. This increases the overall efficiency of energy conversion and reduces power losses. Similarly, in wind energy systems, GaN improves the performance of power conversion units.

In consumer electronics, GaN has revolutionized the design of compact and efficient devices. Apart from fast chargers, it is used in power management systems within devices like televisions, gaming consoles, and laptops. Its ability to operate at high frequencies allows manufacturers to design smaller and more efficient electronic components.

Another important area is optoelectronics. GaN is the key material used in light-emitting diodes (LEDs), especially blue and white LEDs. These LEDs are widely used in lighting, displays, and indicators. GaN is also used in laser diodes for applications such as Blu-ray technology, medical equipment, and optical communication systems.

In aerospace and defense, GaN is used in radar systems, satellite communication, and electronic warfare systems. Its ability to operate at high power and frequency makes it ideal for these demanding applications. GaN-based devices provide better performance, reliability, and efficiency compared to traditional materials.

CONCLUSION

In conclusion, Gallium Nitride (GaN) has emerged as a revolutionary semiconductor material that is reshaping the future of electronics. Its wide bandgap, high electron mobility, and excellent thermal stability give it clear advantages over traditional materials like silicon and germanium. These properties enable GaN devices to operate efficiently at higher voltages, frequencies, and temperatures, making them ideal for modern high-performance applications.

Throughout its development, GaN has evolved from a challenging material to manufacture into a key enabler of advanced technologies. Breakthroughs in crystal growth and device fabrication have allowed it to be widely adopted in industries such as power electronics, telecommunications, automotive systems, and optoelectronics. From fast chargers and 5G networks to electric vehicles and energy-efficient lighting, GaN is playing a crucial role in improving performance while reducing energy consumption.

One of the most important contributions of GaN is its ability to enhance energy efficiency and support sustainability. By minimizing power losses and enabling compact system designs, GaN helps reduce overall energy usage and supports the global push toward greener technologies. Its impact is especially significant in renewable energy systems and data centers, where efficiency is critical.

Although GaN technology still faces challenges such as higher initial costs and complex manufacturing processes, ongoing research and large-scale production are steadily overcoming these barriers. As the technology matures, it is expected to become more affordable and accessible, further accelerating its adoption.

2.6 SWAYAM/NPTEL/MOOC/Self Learning (10)

2.6.1. SWAYAM Course

Table 2.6.1(a) during the 2023 year 4 student's registered SWAYAM online course

S.no	USN	Name	Score	Topic	POs/PSOs
1	3LA22EC011	Basavashree	78%	Programming In Java	PO1,PO2,PO9, PO8 PSO3
2	3LA22EC013	Divyalaxmi	85%		
3	3LA22EC026	Radhika	89%		
4	3LA22EC036	Shruti	81%		



Figure 2.6.1(a) students registered SWAYAM online course certificates

2.6.2. Self Learning Course:

Table 2.6.2(a) List of Students enrolled in Self Learning courses

Sl.No.	USN	Name	Course Type	Duration	Topic	POs/PSOs

1	3LA20EC001	Ashwini	Certificate Program	23/03/2023	How AI drives Chat GPT learn by Microsoft Trainer	PO1,PO2,PO9, PO8 PSO3
2	3LA20EC001	Ashwini	Online Internship	01/03/2023 to 01/04/2024	Artificial Intelligence	
3	3LA20EC004	Madukeshav	Short Term Training Program	19/06/2024 to 24/06/2024	Artificial Intelligence and Machine learning	
4	3LA21EC001	Adinath	Virtual Internship Program	03/02/2025 to 17/02/2025	AIML and data Science	



Figure 2.6.2(a) Photos of Self Learning Course certificates

2.7 Solving Complex Engineering Problems Incorporating Sustainability Goals (20)

2.7.1 Project Based learning:

Table 2.7.1(a) List of Project solving complex engineering problems targeting relevant SDGs.

SL.NO	Project Title	Relevance to POs	Relevance to PSOs	Type of Project	SDG
1	Design of Charge Pump based Phased Locked Loop for Medical applications	PO1,PO2,PO3,PO4,PO5 PO6,PO7,PO8,PO10,PO11	PSO3	Application Based	3,4,9,10
2	CMOS design and Implementation of High Speed and stable 1KB SRAM cell for space related Applications	PO1,PO2,PO3,PO4,PO5 PO6,PO7,PO8,PO10,PO11	PSO3	Application Based	4,9,11,13,17
3	Automatic Accident detection and Ambulance rescue System-SMART BIOs services Using Arduino	PO1,PO2,PO3,PO4,PO5 PO6,PO7,PO8,PO10,PO11	PSO3	Application Based	3,9,10,11,17
4	GPS controlled Environment Monitoring Robotics System Based on IOT	PO1,PO2,PO3,PO4,PO5 PO6,PO7,PO8,PO10,PO11	PSO3	Application Based	6,9,11,13,15
5	RF -ID Based Attendance and Monitoring System	PO1,PO2,PO3,PO4,PO5 PO6,PO7,PO8,PO10,PO11	PSO3	Application Based	4,9,8,16,12
6	Deep Learning Based multi retinal diseases Classification	PO1,PO2,PO3,PO4,PO5 PO6,PO7,PO8,PO10,PO11 PO12	PSO3	Application Based	3,4,9,10
7	AI-BASED EMOTION RECOGNITION FROM SPEECH/AUDIO FILE	PO1,PO2,PO3,PO4,PO5 PO6,PO7,PO8,PO10,PO11 PO12	PSO3	Application Based	3,4,9,10,16

2.7.2 Mini project Based learning:

Table 2.7.2(a) List of Mini Project solving complex engineering problems targeting relevant SDGs.

SL.NO	Project Title	Relevance to POs	Relevance to PSOs	Type of Project	SDG
1	Fire Fighting Robot	PO1,PO2,PO3,PO4,PO5 PO6,PO7,PO8,PO10,PO11	PSO3	Application Based	3,11,9,13
2	Hijacked Wi-Fi: Inside The Evil Twin Phenomenon	PO1,PO2,PO3,PO4,PO5 PO6,PO7,PO8,PO10,PO11	PSO3	Application Based	16,9,4,8
3	Wireless Notice Board Using Bluetooth And Arduino	PO1,PO2,PO3,PO4,PO5 PO6,PO7,PO8,PO10,PO11	PSO3	Application Based	4.9,11,12
4	Audio signal Processing and Translation Using Python	PO1,PO2,PO3,PO4,PO5 PO6,PO7,PO8,PO10,PO11	PSO3	Application Based	4.9,10,16
5	Radar Using Ultra Sonic Sensor and Arduino	PO1,PO2,PO3,PO4,PO5 PO6,PO7,PO8,PO10,PO11	PSO3	Application Based	3,9,11,12,4

2.7.3 Hackathon: During the year 2023 conducted Internal Hackathon (Smart India hackathon 2023) Totally Four Teams Presented theme on following listed table

Table 2.7.3(a) List of Theme solving complex engineering problems targeting relevant SDGs.

SI no	List of Theme	SDGS
1	Agriculture and rural Development	1,2,8,12
2	Bio tech and Med Tech	3,9,2,6,12
3	Clean and green technology	13,7,12,11
4	Disaster Management	3,9,11,13

Program was organized by SPOC Dr. Basavalinga Swamy in An Association with Pragyan AI Bangalore



Figure 2.7.3 (a) Photos of Internal Hackathon (Smart India hackathon 2023)

2.7.4 Poster Presentation:

Every year, we organize a Poster Presentation Competition on the eve of National Science Day to encourage students to showcase their innovative ideas and technical knowledge

This event provides a platform for students to present solutions to real-world engineering problems, promote creativity, and create awareness about scientific advancements and United Nations Sustainable Development Goals (SDGs).

Table 2.7.4(a) List of Poster Presentation Topic solving complex engineering problems targeting relevant SDGs.

SI No	Poster Presentation Topic s	SDGs
1	Smart Glass For Blind Person	3,4,9,10
2	Distance Measurement Using Arduio Uno	9, 4,11,3
3	Arduino Ultra Sound Parking Sensor	9,11,3,12
4	Arduino Based Human Following Robot	9,3,8,10,4
5	Smart Bridge	9,11,3
6	Wireless Notice Board Using Bluetooth And Arduino	9,4,11,12
7	Laser Home Security System	9,11,16,3



Figure 2.7.4(a) Photos of Poster Presentation

2.8 Steps Taken for Enhancing Industry Institute Partnerships (15)

Table 2.8.(a) List of Industry supported Lab

Sl. No.	Industry supported Lab
1	Intel Unnati AIML Lab
2.	STEM ROBOTICS Lab
3.	Cadmaxx IOT Lab
4	IIoT Lab

Table 2.8.(b) List of Equipment in Industry supported Lab

Sl. No.	Industry supported Lab	Equipment's
1	Intel Unnati AIML Lab	Setting of AI,DP & ML and HP
2.	STEM ROBOTICS Lab	Drone
3.	Cadmaxx IOT Lab	IOT KIT
4	IIoT Lab	IIoT Panel

Table 2.8.(c) List of Training Programs in Industry supported LAB

Sl. No.	Industry supported LAB	Training	Training Programs duration
1	Intel Unnati AIML Lab	FDP on Artificial Intelligence & Machine Learning (AIML-2025)"	26-12-2025 to 30-12-2025
2.	STEM ROBOTICS Lab	FDP	1-4-2025 to 16-4-2025
3.	Cadmaxx IOT Lab	Work Shop on Embedded IOT Application Design and IOT	20 -05-2024 to 22-05-2024



Figure 2.8.1(a): Photos of Training

3 OUTCOME-BASED ASSESSMENT (120)

Total Marks 108.00

3.1 Evaluation of Continuous Assessment: Assignments, Unit Tests, Mid-Term, etc. (10)

3.1 Evaluation of Continuous Assessment: Unit Tests, Mid-Terms, Assignments, etc.

The Continuous Internal Evaluation (CIE) process is implemented three times during each semester to systematically assess students' performance and the attainment of Course Outcomes (COs). Each CIE focuses on evaluating specific COs mapped to the course modules. If any COs are found to be inadequately attained during the CIE process, appropriate corrective measures—such as remedial classes, additional assignments, tutorials, or focused revision sessions—are implemented to ensure improved attainment in the subsequent Semester-End Examination (SEE).

Components of CIE

3.1.1. Internal Examinations

- Three Internal Continuous Evaluation (CIE) examinations—CIE-I, CIE-II, and CIE-III—are conducted during the semester.
- Each examination is of 1 hour and 30 minutes duration and carries a maximum of 20 marks.
- The Course Outcomes (CO1 to CO5) are systematically covered across the three CIEs with appropriate distribution of marks.
- The assessment process ensures comprehensive evaluation of all Course Outcomes over the entire CIE cycle.
- The question papers are designed in alignment with Bloom's Taxonomy for Non IPCC.

Table 3.1.1. (a) : CIE Component for Non-IPCC Course

CIE Component	CIE-I	CIE-II	CIE-III
Duration	1h 30min	1h 30min	1h 30min
Maximum Marks	20	20	20
Course Outcomes	CO1 to CO2	CO2 to CO4	CO4 to CO5
Marks Distribution	Balanced across COs	Balanced across COs	Balanced across COs
Bloom's Taxonomy	Multi-level assessment	Multi-level assessment	Multi-level assessment

Multi-level assessment: - Understanding, Application, Analysis and Evaluation.

- The question papers are designed in alignment with Bloom's Taxonomy for IPCC.

Table 3.1.1.(b) : CIE Component for IPCC Course

CIE Component	CIE-I	CIE-II
Duration	1h 30min	1h 30min
Maximum Marks	20	20
Course Outcomes	CO1 to CO3	CO3 to CO5
Marks Distribution	Balanced across COs	Balanced across COs
Bloom's Taxonomy	Multi-level assessment	Multi-level assessment

Multi-level assessment:- Understanding, Application, Analysis and Evaluation.

3.1.2. Assignment

Assignments serve as a qualitative performance assessment tool aimed at evaluating students' understanding of engineering practices and conceptual clarity.

- Assignment questions are designed to cover **all Course Outcomes (CO1–CO5)**.
- Questions are framed according to appropriate levels of **Bloom's Taxonomy**.
- Equal weightage is given to each CO to ensure balanced assessment.
- Assignments encourage analytical thinking, problem-solving skills, and application of theoretical concepts to practical scenarios.

3.1.3. Group Discussion/Seminar/Quiz

Any one of three suitably planned to attain the COs and POs for 20 Marks (duration 01 hours)

Overall, the continuous assessment framework ensures effective monitoring of student progress, timely identification of learning gaps, and implementation of corrective actions to enhance overall academic performance.

Table 3.1.3 (a): Marks distribution of CIE, Assignment & Group Discussion/Seminar/Quiz

ASSESSMENT TYPE	COURSE OUTCOMES					Total
	CO1	CO2	CO3	CO4	CO5	
CIE-1	20 (12+08)		0	0	0	20
CIE-2	0	20 (04+12+04)			0	20
CIE-3	0	0	0	20 (08+12)		20
Assignment – 1	2	2	2	2	2	10
Assignment – 2	2	2	2	2	2	10
Group discussion/Seminar/Quiz	4	4	4	4	4	20
Total Internal (CIE+ Assignment)	40		40		20	100

The sum of three tests, two assignments, and quiz/seminar/group discussion will be out of 100 marks and will be scaled down to 50 marks.

Table 3.1.3 (b): Marks distribution of CIE & Assignment (IPCC Subject)

ASSESSMENT TYPE	COURSE OUTCOMES					Total
	CO1	CO2	CO3	CO4	CO5	
CIE-1	20 (08+08+04)		0	0		20
CIE-2	0	0	20 (04+08+08)			20
Assignment – 1	02	02	02 (01+01)	02	02	10
Assignment – 2	02	02	02 (01+01)	02	02	10
Total Internal (CIE+ 2 Assignments)= 50 (must be Scaled down to 30)	30		30			30
Practical	20					20
Total Internal (CIE + Assignment + Practical)						50

3.1.4. Process for CIE Question Paper Setting, Evaluation and Effective Process Implementation

3.1.4.1. Question Paper Setting

- The department follows the question paper pattern prescribed by the IQAC.
- The pattern ensures coverage of all Course Outcomes (COs).
- A circular is issued to faculty for CIE question paper preparation.
- Course coordinators prepare a set of question papers.

3.1.4.2. Question Paper Review

- The HOD assigns module coordinators (senior faculty/subject experts) for review.
- The review is based on:
 - Adherence to the prescribed pattern
 - Relevance to the syllabus
- If approved, the question paper is selected for CIE.
- If not approved, it is returned to the course coordinator for revision.
- The Module Coordinator selects one question paper and forwards it to the CIE coordinator.

3.1.4.3 Evaluation Process

- Faculty prepares the scheme and solutions.
- Answer scripts (CIE books) are evaluated based on the scheme.
- Solutions are discussed in class to help students identify mistakes and improve.
- Marks are compiled for each student.

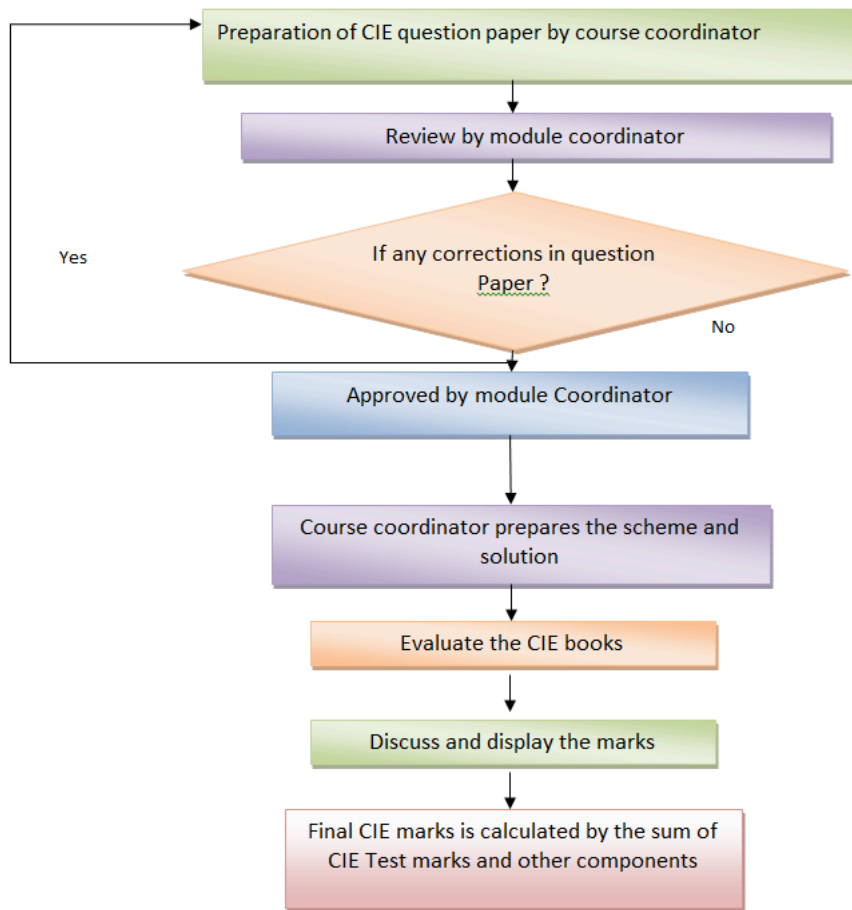


Fig: 3.1.4.(a): Flow Chart of CIE Process

3.1.4.4. Ensuring Quality of CIE Question Papers (Outcome & Learning Level Perspective):

- Each CIE covers a minimum of two syllabus modules, ensuring systematic attainment of all Course Outcomes.
- Question papers are designed to incorporate multiple cognitive levels, beginning with basic understanding and recall, enabling all students to attempt confidently while progressively assessing higher-order thinking skills.
- All question papers undergo mandatory scrutiny by the Module Coordinator to ensure alignment with Revised Bloom's Taxonomy.
- Question papers not meeting the required standards are returned for revision, ensuring continuous improvement in quality.
- This structured and rigorous process ensures comprehensive, balanced, and outcome-based assessment of students' knowledge and skills.

3.1.4.5. Evidence of CO's coverage in class test

Course Coordinators are instructed to design CIE question papers ensuring proper **coverage of Course Outcomes (COs)** and alignment with appropriate **Revised Bloom's Taxonomy (RBT) levels**. A sample question paper demonstrating this mapping is presented below.

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LINGARAJAPPA ENGINEERING COLLEGE, BIDAR

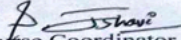
ACA/R/
Rev:00
Date:20.11.2024
TestNo:II
Duration:1hr30min

Department of ECE
CIE-II Question paper

Academic Year: 2024-25
Semester: VII
Section:-
Subject with code: 21EC71
Max. Marks: 20

INSTRUCTIONS: Answer any one full question from each.

Q.No	Question Statement	RBTL	CO	PO	Marks
Q1.	Explain goals and objectives in global routing.	L2	CO1	PO1,P O2	4
OR					
Q2.	Explain the Methods of Global routing.	L2	CO1	PO1,P O2	4
Q3.	Explain Routing between blocks.	L3	CO2	PO2, PO3	4
OR					
Q4.	Explain Back-annotation.	L2	CO2	PO1	4
Q5.	Explain verification process in detail.	L3	CO2	PO2, PO3	4
OR					
Q6.	Explain basic test bench functionality.	L3	CO2	PO3	4
Q7.	Explain data types with examples	L3	CO2	PO1	4
OR					
Q8.	Explain fixed and dynamic arrays.	L2	CO2	PO2	4
Q9.	Explain Queues in data types	L2	CO3	PO2	4
OR					
Q10.	Explain enumerated types.	L3	CO3	PO1	4


Course Coordinator


Module Coordinator


PRINCIPAL
Lingaraj Appa Engineering
College, Gornalli, BIDAR-585403


H.O.D
HEAD OF DEPARTMENT
Department of Electronics
& Communication Engineering
Lingaraj Appa Engineering College
Gornalli, BIDAR-585403

Fig: 3.1.4.5.(a): Sample CIE Question Paper

3.2 Evaluation of Semester End Exam (SEE) Question Paper.

The Semester-End Examination (SEE) serves as a comprehensive assessment tool to measure the attainment of Course Outcomes (COs) at the conclusion of the semester. It evaluates students' overall understanding, analytical ability and application of concepts covered throughout the course.

The SEE question paper is designed to:

- **Assess all Course Outcomes (CO1–CO5)** in a balanced and systematic manner.
- Ensure **appropriate distribution of marks** among all COs, providing equal weightage to each outcome.
- Incorporate questions aligned with various levels of **Bloom's Taxonomy**, such as understanding, application, analysis, and evaluation.
- Maintain a structured format that reflects the module-wise CO mapping established during the course.

Table 3.2.(a): Marks distribution of SEE

ASSESSMENT TYPE	COURSE OUTCOMES					Total
	CO1	CO2	CO3	CO4	CO5	
SEE	20	20	20	20	20	100
SEE(Converted to 50 Marks)						50
Grand Total (CIE 50 + SEE 50)						100

3.2.1 SEE Question Paper Setting Process:

The Semester End Examination (SEE) at Visvesvaraya Technological University follows a secure and structured question paper setting procedure to ensure fairness and complete syllabus coverage.

- **Panel Selection:**
A Board of Examiners (BoE), consisting of senior professors and subject experts from affiliated colleges, is appointed by the university.
- **Multiple Question Papers:**
For each subject, multiple distinct question paper sets are prepared along with their Scheme of Evaluation.
- **Syllabus Mapping:**
 - The syllabus is divided into 5 modules.
 - Two full questions (20 marks each) are set from each module.
 - Questions are mapped to Revised Bloom's Taxonomy (RBT) levels and Course Outcomes (COs).
- **Question Paper Delivery System (QPDS):**
 - On the exam day, one question paper set is randomly selected by the Registrar (Evaluation).
 - The selected paper is delivered electronically via the QPDS portal shortly before the exam.
 - Colleges must download and print the paper in a secure "Strong Room" with:
 - Dedicated high-speed internet and static IP
 - CCTV surveillance for monitoring

3.2.2. Evaluation Process

VTU uses a Digital Valuation System (DVS) to ensure accurate, unbiased, and efficient evaluation.

- **Scanning & Digitization:**
Answer scripts are sent to digitization centers, scanned, and assigned a unique barcode/ASN to maintain anonymity.
- **Digital Valuation:**
Evaluators access scanned scripts through a secure portal and assess them based on the Scheme of Evaluation.
- **Moderation:**
Senior faculty members review a sample of evaluated scripts to maintain consistency in grading.

- **Multiple Evaluations:**

If the difference between two evaluations exceeds 15 marks, the script is sent for a third evaluation.

- **Scaling & Result Processing:**

- Scripts are evaluated for 100 marks.
- Final SEE marks are scaled down to 50 marks.
- These are combined with CIE marks (50) for final results.

- **Student Access:**

Students can apply for:

- Digital photocopy of evaluated scripts
- Reevaluation through the VTU student portal



USN

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**Seventh Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025
Advanced VLSI**

Time: 3 hrs. Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Explain ASIC design flow with neat flow chart. (10 Marks)
 b. Explain Booth Encoding multiplier with an example. (10 Marks)

OR

- 2 a. Describe different cell compilers and I/O cells. (10 Marks)
 b. With a neat diagram, explain the operation of conditional sum adder. Mention its advantages and disadvantages. (10 Marks)

Module-2

- 3 a. Explain the concept of measurement of delay in Floorplanning. (10 Marks)
 b. Explain the following : (10 Marks)
 i) Power planning ii) Clock planning

OR

- 4 a. Write an algorithm for iterative placement improvement method and explain briefly. (10 Marks)
 c. Explain the goals and objectives of global routing in detail. (10 Marks)

Module-3

- 5 a. Explain factors in randomizing the stimulus to a design. (10 Marks)
 b. Draw the diagram of layered test bench of system verilog and describe the function of each layer. (10 Marks)

OR

- 6 a. Describe the various array methods with an example. (08 Marks)
 b. Describe type def and enumerated data types with example. (06 Marks)
 c. Explain constant and strings in system verilog with example. (06 Marks)

Module-4

- 7 a. Explain Tasks, functions and void function in system verilog. (06 Marks)
 b. How time values are specified in system verilog, describe with example. (06 Marks)
 c. Explain automatic storage and variable initialization with system verilog program example. (08 Marks)

OR

- 8 a. Describe the communication between the test bench and DUT with suitable diagram and system verilog program. (10 Marks)
 b. Explain different types of system verilog assertions with example. (10 Marks)

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 Lingaraj Appa Engineering
 College, Gornall, BIDAR-585403

Important Note : 1. On completing your answers, carefully draw diagonal cross lines on the remaining blank pages.
 2. Any revealing of identification, appeal to evaluator and/or equations written eg. 42+8=50, will be treated as malpractice.

Module-5

- 9 a. Explain common randomization problems in brief. (10 Marks)
b. Write any 4 Random Number functions with an example. (04 Marks)
c. Explain Pseudorandom Number Generators (PRNG) in system verilog. (06 Marks)

OR

- 10 a. What is coverage? Explain coverage types in system verilog. (10 Marks)
b. Describe various coverage options with an example. (10 Marks)

3.3 Evaluation of Laboratory Work and Workshop (Continuous and SEE) (10)

Table 3.3.1: Marks distribution for Laboratory courses

Sl. No	Assessment Type										
1	Lab CIE										Total
	Continuous Evaluation						Lab IA (2 Tests)				
	Write up	Conduction	Result	Record	Viva	Total	Write up	Conduction	Result	Viva	Total
	5	5	5	10	5	30	2	2	2	4	10+10=20
2	SEE										
	Write up		Conduction				Viva		Total		
	8		35				7		50		

Table 3.3.2: Marks distribution for Laboratory courses (IPCC)

Sl. No	Assessment Type			
1	Lab CIE			Total
	Continuous Evaluation for Each Experiment			
	Write up	Conduction, Result & Record	Viva	Total
	2	7 (3+2+2)	1	10 (Scaled up to 15)
	Lab Test			
	Write up	Conduction	Viva	Total
	8	35	7	50 (Scaled down to 5)

Table 3.3.3: Rubrics for Laboratory Continuous Evaluation

Sl. No.	Criteria	Excellent	Good	Average	Poor
		5M	4-3M	2M	1M
1	Write-up (5 Marks)	Complete, well-structured write-up with aim, procedure, observations, calculations, and result clearly presented.	Mostly complete write-up with minor errors or missing details.	Partially complete write-up with noticeable errors or missing sections.	Incomplete or incorrect write-up with major missing components..
		5M	4-3M	2M	1M

2	Conduct of Experiment (5 Marks)	Performs experiment confidently with clear understanding and correct procedure, maintaining proper discipline.	Performs experiment with basic understanding and minor mistakes.	Limited understanding; needs frequent guidance and makes errors.	Unable to perform experiment properly; lacks understanding and requires continuous assistance.
		5M	4-3M	2M	1M
3	Result (5 Marks)	Accurate result with correct calculations and proper interpretation.	Minor errors in calculation or interpretation.	Partially correct result with noticeable errors.	Incorrect or missing result.
4	Viva (5 Marks)	Answers all questions confidently with strong conceptual clarity.	Answers most questions correctly with minor gaps.	Basic understanding but unable to explain clearly.	Unable to answer basic questions; very weak understanding.
		10M	9-7M	6-3M	2-1M
5	Record (10 Marks)	Neat, complete, and well-maintained record; all experiments documented properly.	Record is mostly complete but may lack neatness or consistency.	Incomplete record with several missing entries or poor organization.	Poorly maintained or largely incomplete record.
LAB IA					
		2M	1.5M	1M	0M
6	Write-up (2 Marks)	Complete and well-structured write-up with all required components.	Mostly complete with minor errors or missing details.	Partially complete; some important parts missing.	Incomplete or incorrect write-up.
7	Conduct of Experiment (2 Marks)	Performs experiment independently with correct procedure.	Performs with minor mistakes or minimal guidance.	Requires guidance; shows partial understanding.	Unable to perform experiment properly.
8	Result (2 Marks)	Accurate result with correct calculations.	Minor errors in calculation or result.	Partially correct result with noticeable errors.	Incorrect or missing result.
		4M	3-2M	1M	0M
9	Viva (4 Marks)	Answers confidently with clear conceptual understanding.	Answers most questions correctly with minor gaps.	Basic understanding but lacks clarity.	Unable to answer basic questions.

3.4 Evaluation of Industrial Training/ Internship (Continuous and SEE) (10)

3.4 Evaluation of Industrial Training/ Internship (Continuous and SEE)

The project guides and panel members will assess both **individual** and **team performance** for each project batch. The evaluation process ensures that every student's contribution, technical competency, teamwork, and overall project execution are fairly assessed

Table 3.4.1: Internship CIE Marks Allocation

Sl. No.	Evaluation Criteria	Marks
1	Able to Formulate and Conduct Research Problem	20
2	Able to design and develop solution to the problem	20
3	Able to analyze and solve the complex problem	20
4	Able to plan, execute and implement the project	20
5	Able to write effective technical report and demonstrate through presentation	20
Total		100

Table 3.4.2: Internship CIE Marks Rubrics

Sl. No.	Component	Excellent (4)	Good (3)	Average (2)	Poor (1)
1	Able to Formulate and Conduct Research Problem	Clearly defines problem, strong research methodology, well-justified (20 marks)	Defined problem with minor gaps (15-19 Marks)	Basic problem understanding (5-15 Marks)	Problem unclear or not defined (0-5Marks)
2	Able to design and develop solution to the problem	Innovative, complete and efficient solution (20 marks)	Good design with minor gaps (15-19 Marks)	Basic design (5-15 Marks)	Incomplete/poor solution (0-5Marks)
3	Able to analyze and solve the complex problem	Deep analysis with accurate results (20 marks)	Good analysis (15-19 Marks)	Basic analysis (5-15 Marks)	No proper analysis (5-15 Marks)
4	Able to plan, execute and implement the project	Well-planned, executed successfully (20 marks)	Minor issues in execution (15-19 Marks)	Basic planning/execution (5-15 Marks)	Poor/no execution (5-15 Marks)

5	Able to write effective technical report and demonstrate through presentation	Excellent report, clear presentation, confident answers (20 marks)	Good report/presentation (15-19 Marks)	Average communication (5-15 Marks)	Poor report/presentation (5-15 Marks)
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3.5 Evaluation of Projects (20)

3.5.1 Evaluations of Projects.

The project guides and panel members will assess both **individual** and **team performance** for each project batch. The total project marks are distributed as follows:

Table 3.5.1: Marks distribution for Project work

SI. No	Assessment Type			
1	Project work			100
	CIE			
	Project Work/Report	Project Presentation Skills	Question & Answer Session (Viva)	
	50	25	25	
2	SEE			100
	Project Work	Presentation	Viva	
	50	25	25	

Table 3.5.2: Rubrics for Project work

Split up	Rubrics		Marks
Report (50 Marks)	Content Development	Abstract/ Synopsis Write-up	10
		Selection of Topic/ Relevance of the subject to concerned discipline	5
		Problem Identification	5
		Objectives and Methodology	5
	Problem-Oriented Exposition	Breadth of Literature Survey (Papers/Sites/Sources Surveyed)	10
		Documentation/ Systematic Approach	10
		Results (with inference, Conclusions, etc.)	5
Project Presentation Skill (25 Marks)	Quality of preparation of presentation	5	
	Communication Skills	5	
	Technical knowledge and awareness	5	
	Individual involvement	10	

Question and Answer Session (Viva- Voce) (25 Marks)	Questions relating to fundamentals and concepts	10
	The clarity in answering the questions	5
	The understanding ability of the questions asked	5
	Attitude towards the question asked	5
Total Marks		100

Table 3.5.3: Rubrics for Project work

Sl. No.	Criteria	Excellent	Good	Average	Poor
Project Work (50)					
Content Development(25Marks)					
1	Abstract/ Synopsis Write-up (10M)	Clear, concise, and comprehensive summary covering all key aspects (10-9 M)	Covers most aspects with minor gaps.(8-6 M)	Basic summary; lacks clarity or completeness (5-3M)	Incomplete or unclear synopsis. (2-1M)
2	Selection of Topic / Relevance (5 Marks)	Highly relevant, innovative, and aligned with discipline(5M)	Relevant with some originality(4M)	Moderately relevant; limited originality(3-2)	Irrelevant or poorly chosen topic (1M)
3	Problem Identification (5 Marks)	Problem clearly defined and well-justified.(5M)	Problem identified with minor gaps in clarity.(4M)	Problem vaguely defined.(3-2)	Problem not clearly identified. (1M)
4	Objectives and Methodology (5 Marks)	Clear objectives with well-defined methodology.(5M)	Objectives clear; methodology adequate.(4M)	Objectives/methodology partially defined.(3-2M)	Unclear or missing.(1M)
Problem-Oriented Exposition(25Marks)					
5	Literature Survey (10 Marks)	Extensive, relevant, and well-analyzed sources.(10-9M)	Good coverage with minor gaps.(8-6M)	Limited sources; basic understanding.(5-3M)	Inadequate or irrelevant survey. (2-1M)
6	Documentation / Systematic Approach (10 Marks)	Well-organized, logical, and professional documentation. (10-9M)	Mostly organized with minor issues.(8-6M)	Some structure but lacks consistency.(5-3M)	Poorly organized or incomplete. (2-1M)
7	Results (Inference & Conclusions) (5 Marks)	Clear, accurate results with strong analysis and conclusions.(5M)	Results correct with minor interpretation gaps.(4M)	Basic results; weak analysis.(3-2M)	Incorrect or missing results. (1M)
Project Presentation Skill (25 Marks)					
8	Quality of Presentation (5 Marks)	Well-designed, clear, and engaging slides.(5M)	Good structure with minor issues. (4M)	Basic slides; lacks clarity/design.(3-2M)	Poorly prepared presentation. (1M)
9	Communication Skills (5 Marks)	Clear, confident, and effective communication.(5M)	Generally clear with minor hesitation.(4M)	Limited clarity; lacks confidence.(3-2M)	Poor communication.(1M)
10	Technical Knowledge (5 Marks)	Strong understanding of concepts and subject.(5M)	Good understanding with minor gaps.(4M)	Basic knowledge only.(3-2M)	Weak understanding.(1M)
11	Individual Involvement (10 Marks)	Highly active, significant contribution.(10-9M)	Good participation.(8-6M)	Moderate involvement.(5-3M)	Minimal contribution(2-1M)

Viva-Voice (25 Marks)

12	Fundamental & Conceptual Questions (10 Marks)	Answers accurately with deep understanding.(10-9M)	Mostly correct answers.(8-6M)	Basic answers with gaps.(5-3M)	Unable to answer properly(2-1M).
13	Clarity in Answering (5 Marks)	Clear and precise answers.(5M)	Mostly clear.(4M)	Some confusion.(3-2M)	Unclear responses.(1M)
14	Understanding Ability (5 Marks)	Quickly understands questions.(5M)	Understands with minor clarification.(4M)	Needs repetition.(3-2M)	Difficulty understanding.(1M)
15	Attitude (5 Marks)	Confident, positive, and professional.(5M)	Good attitude.(4M)	Neutral or slightly hesitant.(3-2M)	Poor attitude or lack of interest.(1M)

Table 3.5.4: Marks distribution for Project work

Sl. No	Assessment Type			
1	SEE			100
	Project Work	Presentation	Viva	
	50	25	25	

Table: 3.5.5: Project work Rubrics for SEE

Sl. No.	Criteria	Excellent	Good	Average
1	Project Work (50)	Well-planned design with expected output.. (50-35)	Good design with expected output.. (34-20)	Basic design with partial output. (19-1)
2	Presentation (25)	Confident delivery, clear and engaging slides good time management. (25-18)	Understandable but less engaging, minor slide or time issues. (18-10)	Poor delivery, weak slides, lacks engagement. (9-1)
3	Viva (25)	Strong subject knowledge and confident answers. (25-18)	Basic understanding but some unclear answers. (18-10)	Limited knowledge and unclear responses. (9-1)

Continuous Internal Examination (CIE):

The project guides and panel members assess both individual and team performance for each batch. The total marks for the Minor Project Continuous Internal Evaluation (CIE) are 100. Evaluation is carried out based on individual performance, including presentation skills, communication skills, and report quality, as well as team performance, which includes achievement of project objectives, outcomes, and level of collaboration among team members. The final CIE marks are awarded based on the overall performance in all these aspects.

CIE Lab Examination Marks: 100.

Table 3.5.6: Marks distribution Mini Project

Sl. No	Assessment Type
--------	-----------------

1	Mini Project			Total
	CIE			100
	Project Work	Presentation	Viva voce	
	50	25	25	

Table 3.5.7: CIE Rubrics for Mini Project

Sl. No.	Criteria	Excellent	Good	Average	Poor
1	Project Work (50)	Well-structured, in-depth analysis, use of recent references, error-free (50-41 Marks)	Good content with minor issues (40-31 Marks)	Basic content with limited references (30-16 Marks)	Poor or incomplete report (15-1 Marks)
2	Presentation (25)	Clear, confident, well-organized presentation with effective visuals (25 -21Marks)	Good delivery with minor issues (20-16 Marks)	Average explanation, lacks clarity (15-11 Marks)	Poor communication and presentation (10-1 Marks)
3	Viva voce (25)	Answers confidently with strong conceptual clarity (25-21 Marks)	Answers most questions correctly (20-16 Marks)	Basic understanding with limited clarity (15-11 Marks)	Unable to answer questions (10-1 Marks)

3.6 Evidence of Addressing Sustainable Development Goals (SDG) (10)

Table 3.6(a): List of Students Project work for the CAYm1:2024-25

USN	Name	Guide Name	Project Title	SDG No.	Justification
3LA21EC001	Adinath	Dr. Basavalinga Swamy	Design of Automatic Nutrition System for Hydroponic Plants using IoT NODE MCU	2,6,9,11,12,13 &17	Promotes food security through smart agriculture (hydroponics) and supports environmental sustainability.
3LA21EC028	Sudhakar				
3LA21EC014	Md Inayathullah Khan				
3LA21EC012	Md Ashfaq Ahmed				
3LA21EC006	Divya	Dr. Sagarkumar Buyya	Charge Pump Based PLL for Medical Applications	3,8,9,12&17	Improves healthcare equipment performance through advanced PLL design..
3LA21EC033	Vinayak Ghatge				
3LA21EC022	Sandyarani				
3LA21EC021	Sai Prassan				
3LA21EC030	Sushma Reddy	Dr. Sagarkumar Buyya	CMOS Design & Implementation of High Speed and Stable 1KB SRAM Cell for Space Applications	8,9,12,13 &17	Supports technological advancement and energy-efficient electronics for space applications.
3LA21EC011	Manikeshwari				
3LA21EC007	Ganesh				
3LA22EC404	Prashant D				
3LA21EC019	Priyanka	Dr. Sharanbasappa Shetkar	Automatic Accident Detection and Ambulance Rescue System Using Arduino	3,8,9,11 &17	Enhances emergency response and medical assistance through IoT-based detection and alert systems.
3LA21EC004	Attoffa Jabeen				
3LA21EC003	Archana				
3LA22EC403	Pavan				
3LA21EC020	Ranjeeta	Prof. Chaya Bhavi	GPS Controlled Environment Monitoring Robotics System Based on IoT	6,9,11,13 &17	Enables smart environmental monitoring to improve urban sustainability and climate action.sustainability.
3LA21EC029	Sumalata				
3LA21EC031	Swati				
3LA22EC400	Basavaraj				

3LA21EC 027	Subhash	Dr. Sharanbasa ppa Shetkar	RFID-Based Attendance and Monitoring System	4,8,9,12&1 7	Enhances automation and monitoring in institutions.
3LA21EC 017	Premkumar				
3LA21EC 032	Vijaylaxmi				
3LA21EC 018	Prithviraj				
3LA21EC 024	Sanjana	Prof. Chaya Bhavi	OTP Based Ration Distribution System Based on IoT	1,2,9,12&1 7	Aims to ensure fair food access using technology.
3LA21EC 009	Machkuri Divya Maruti				
3LA21EC 008	K Vaishnavi				
3LA22EC 402	Parameshw ar Reddy	Dr. Basavalinga Swamy	GSM Based E-Notice System	4,8,9,12&1 7	Improves communication infrastructure in institutions.
3LA21EC 015	Nagesh				
3LA21EC 005	Darshan				

Table 3.6(b): List of Students Project work for the CAYm2:2023-24

USN	Name	Guide Name	Project Title	SDG No	Justification
3LA20EC 001	Akshata	Dr. Sharanbasappa Shetkar	Develop Machine Learning Model for Child Institute Detection	1,3,4,5,8,10,16 &17	Helps identify optimal institutes for children using AI, improving access to education.
3LA20EC 002	Ashwini				
3LA20EC 006	Shivani				
3LA20EC 003	Madhu	Dr. Sharanbasappa Shetkar	Deep Learning Based Multi-Retinal Diseases Classification	3,4,8,9,10&17	Assists in medical diagnostics and early detection of eye diseases using AI.
3LA20EC 008	Pragati				
3LA20EC 004	Madukes hav	Dr. Basavalinga Swamy	Deep Learning Based Model for Abdominal Trauma Detection using KERSCV	3,8,9,10 & 17	Enhances trauma detection in medical emergencies through AI- based image processing.
3LA20EC 005	Nagaraj				
3LA21EC 400	Ravikiran				

Table 3.6(c): List of Students Project work for the CAYm3:2022-23

USN	Name	Guide Name	Project Title	SDG No	Justification
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3LA19EC 001	Abhishek	Dr.Sharanbasappa Shetkar	AI-BASED Emotion Recognition From Speech/Audio File	3,4,8,9&1 0	Helps identify optimal institutes for children using AI, improving access to education and supporting mental health monitoring.
3LA19EC 004	Pratiksha				
3LA19EC 005	Suriya Begum				
3LA19EC 002	Madhu	Dr.Sharanbasappa Shetkar	AI-BASED TEXT to Video Generation	4,8,9,12& 17	Enhances educational content creation and e-learning by converting text into interactive videos, promoting innovation and responsible production.
3LA19EC 003	Pragati				

3.7 Attainment of Course Outcomes (25)

3.7.1 Describe the Assessment tools and Processes used to gather the data for the evaluation of course outcome.

Attainment process for Course Outcomes (COs).

. CO Attainment through CIE (Continuous Internal Evaluation)

1. **Defining Course Outcomes (COs):** Five course outcomes are established for all theory and lab courses.
2. **Setting Question Papers:** Question papers for both CIE and SEE are designed to cover all COs, Bloom's taxonomy levels, and maintain uniform maximum marks across all COs.
3. **Recording CO-wise Marks:** CO-wise maximum marks for both theory and lab courses are entered into an Excel sheet for all students.
4. **Entering Student Marks:** Marks obtained by students for CIE and assignments are entered into the Excel sheet for each CO.
5. **Summing CO Marks:** The total marks for each CO (from CIE and any 2 learning activities) are calculated summation using the Excel sheet.
6. **Calculating CO Attainment:** CO attainment for all students is calculated as obtained marks divided by the maximum marks for each CO, and the result is expressed as a percentage.
7. **Setting Thresholds:** A threshold of 60 percentages is set for theory courses and 70 percentages is set for lab courses (students scoring above this threshold are considered for the attainment process).
8. **Identifying Students Above/Below Threshold:** The Excel sheet is used to count the number of students above and below the threshold for each CO.
9. **CO attainment:** CO attainment is calculated by dividing the number of students above the threshold by the total number of students.
10. **Overall CO Attainment Calculation:**
 - o a) The threshold remains consistent across all three assessment years.
 - o b) A target CO attainment percentage is set to 50%, 55% and 60% for CAYm2, CAYm1 and CAY
 - o c) The actual CO attainment is compared to the target. If any COs falls short of the target, improvement measures are identified and implemented by the respective course coordinators for not attained courses.
11. **Indirect CO Attainment (Course Feedback Survey):** Indirect CO attainment is obtained via a course Feedback survey, where students rate the respective COs on a scale (e.g., excellent-3, good-2, poor-1).
12. **Calculating Survey Average:** The average of the course feedback survey scores for all COs is calculated and expressed as a percentage.
13. **Final CO Attainment:** The final CO attainment is calculated by giving 80% weightage to direct CO attainment and 20% weightage to indirect CO attainment.

. CO Attainment through SEE (Semester End Examination)

CO Attainment through SEE (Semester End Examination)

1. **Entering SEE Marks:**

The marks obtained by all students in the Semester End Examination (SEE) are entered into an Excel sheet. The marks are then converted into percentages for easier analysis and comparison.
2. **Assigning CO Attainment for SEE:**

Based on the SEE results, the attainment level is calculated and mapped equally to all the Course Outcomes (COs). The same percentage of attainment is considered for the COs that are assessed through the SEE.
3. **Calculating CO Attainment:**

CO attainment is calculated by determining the number of students who score above the predefined threshold and dividing it by the total number of students who appeared for the examination.
4. **Comparing Targets and Implementing Improvement Measures:**

The calculated CO attainment values are compared with the predefined target levels. If any CO fails to meet the target, appropriate improvement actions—such as revising teaching strategies, providing additional learning resources, or conducting remedial classes—are planned and implemented by the respective course instructors.

Final CO Attainment

The final Course Outcome (CO) attainment is calculated by combining the attainment levels from both Continuous Internal Evaluation (CIE) and Semester End Examination (SEE). A weightage of 50% is assigned to CIE attainment and 50% to SEE attainment. The final CO attainment is obtained by taking the weighted average of these two components. This combined value represents the overall level of achievement of each Course Outcome by the students.

LINGARAJ APPA ENGINEERING COLLEGE, BIDAR

Department of Electronics and Communication Engineering

COURSE FEEDBACK SURVEY 2023-2024

Dear Students, Your valuable feedback and support are being sought for further improvement in academic culture of our College and University. The quality of the academic programs and credibility can be enhanced with your valuable inputs. Hence, you are requested to furnish the data in the below format.

Academic year: 2023-2024

Semester: 5th

USN: 3LA24EC001

Course code and Name: Electromagnetic Waves (21EC54)

Course Coordinator: Dr. Sharanbasappa Shetkar

The following course outcomes are listed for the feedback assessment. Please rate each of the outcomes whether it is Excellent-3, Good-2, and Poor - 1 by using tick mark.

COs	Statement	Excellent	Good	Poor
CO1	Evaluate problems on electrostatic force, electric field due to point, linear, volume charges by applying conventional methods and charge in a volume.	✓		
CO2	Apply Gauss law to evaluate Electric fields due to different charge distributions and Volume Charge distribution by using Divergence Theorem.	✓		
CO3	Determine potential and energy with respect to point charge and capacitance using Laplace equation and Apply Biot-Savart's and Ampere's laws for evaluating Magnetic field for different current configurations	✓		
CO4	Calculate magnetic force, potential energy and Magnetization with respect to magnetic materials and voltage induced in electric circuits.	✓		
CO5	Apply Maxwell's equations for time varying fields, EM waves in free space and conductors and Evaluate power associated with EM waves using Poynting theorem		✓	

Feedback Analysis (Summary) Excellent-3, Good-2, Poor-1 by using tick mark

Evaluation Parameter	Rating(1-3)
Clarity of course objectives	3
Coverage of syllabus	3
Teaching-learning effectiveness	3
Learning resources	2
Fairness of assessment	2
Overall satisfaction	3

Adinath
Signature

Figure3.7.1: Sample of Course end survey

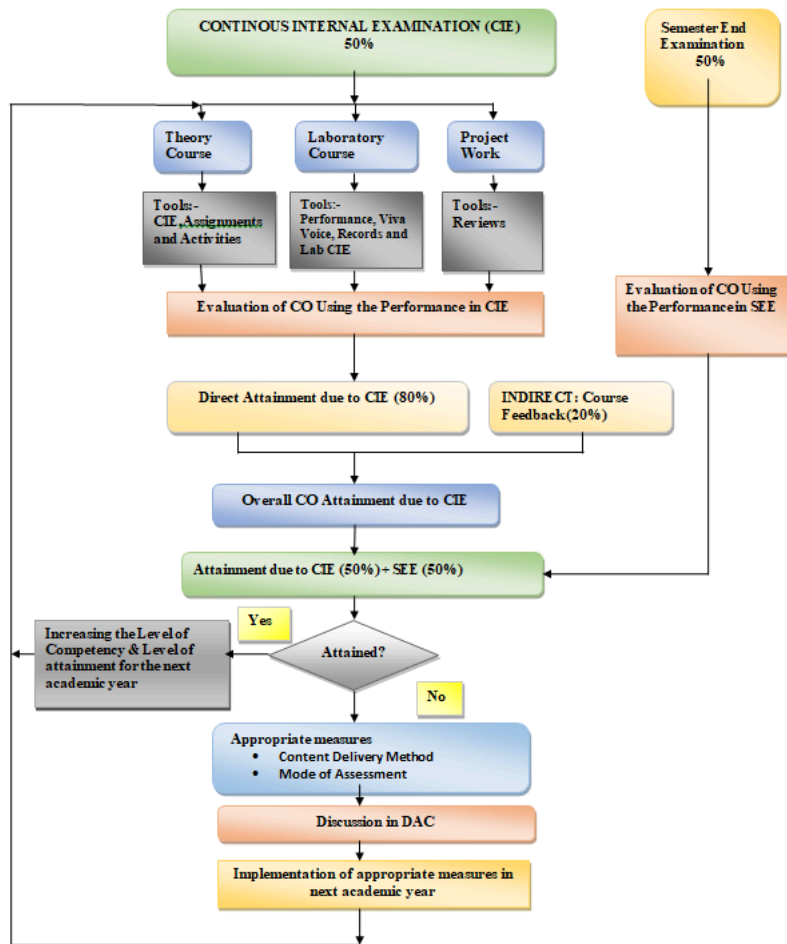


Figure: 3.7.2: Flowchart for CO Attainment

Table 3.7.2: Overall CO attainment of CAYM1 (2024-25 Batch)

Sl. No	Course Code	Course	Target Level	CO1	CO2	CO3	CO4	CO5
				(F)	(F)	(F)	(F)	(F)
1.	21MAT11	Calculus And Differential Equations	60	64.5	48.4	61.3	67.7	67.7
2.	21PHY12	Engineering Physics	60	64.5	45.2	41.9	41.9	29
3.	21ELE13	Basic Electrical Engineering	60	67.7	25.8	41.9	29	25.8
4.	21CIV14	Elements of Civil Engineering and Mechanics	60	67.7	71	67.7	67.7	71
5.	21EVN15	Engineering Visualization	60	74.2	83.9	83.9	80.6	83.9
6.	21PHYL16	Engineering Physics Laboratory	70	87.1	83.9	83.9	83.9	83.9
7.	21ELEL17	Basic Electrical Engineering Laboratory	70	87.1	83.9	80.6	80.6	80.6
8.	21EGH18	Communicative English	70	83.9	83.9	80.6	77.4	67.7
9.	21IDT19	Innovation And Design Thinking	70	67.7	61.3	67.7	64.5	64.5
10.	21MAT21	Advanced Calculus And Numerical Methods	60	75	53.6	57.1	60.7	50
11.	21CHE22	Engineering Chemistry	60	82.1	71.4	82.1	75	75
12.	21PSP23	Problem-Solving Through Programming	60	42.9	35.7	10.7	32.1	28.6
13.	21ELN24	Basic Electronics & Communication Engineering	60	60.7	46.4	64.3	50	53.6
14.	21EME25	Elements Of Mechanical Engineering	60	92.9	82.1	85.7	89.3	82.1
15.	21CHEL26	Engineering Chemistry laboratory	70	89.3	89.3	89.3	89.3	89.3
16.	21CPL27	Computer Programming Laboratory	70	78.6	78.6	96.4	96.4	96.4
17.	21EGH28	Professional Writing Skills in English	70	89.3	89.3	85.7	82.1	71.4
18.	21SFH29	Scientific Foundations of Health	70	78.6	75	75	71.4	53.6
19.	21MAT31	Transform Calculus, Fourier Series And Numerical Techniques	60	86.7	50	70	53.3	46.7
20.	21EC32	Digital System Design using Verilog	60	87.9	87.9	81.8	81.8	72.7
21.	21EC33	Basic Signal Processing	60	46.9	40.6	40.6	53.1	50.0
22.	21EC34	Analog Electronic Circuits	60	68.8	71.9	81.3	71.9	78.1
23.	21ECL35	Analog and Digital Electronics Lab	70	100	100	100	100	100
24.	21UH36	Social Connect and Responsibility	70	100	100	100	100	100
25.	21KSK37/21KBK37	Samskrutika Kannada/ Balake Kannada	60	100	100	100	93.8	81.3
26.	21EC383	LIC (Linear Integrated Circuits) Lab using Pspice /Multisim	70	93.3	93.3	93.3	93.3	93.3
27.	21MATDIP31	Additional Mathematics - I	60	100	100	100	100	100
28.	21MAT41	Complex Analysis, Probability And Statistical Methods	60	20	53.3	66.7	60	53.3
29.	21EC42	Digital Signal Processing	60	83.3	86.7	80.0	86.7	86.7
30.	21EC43	Circuits & Controls	60	86.7	86.7	86.7	83.3	90
31.	21EC44	Communication Theory	60	33.3	56.7	36.7	50	36.7
32.	21BE45	Biology For Engineers	60	100	83.3	86.7	90	76.7

33.	21ECL46	Communication Laboratory I	70	80	80	80	80	80
34.	21CIP47	Constitution of India & Professional Ethics	60	100	96.7	96.7	86.7	100
35.	21EC482	C++ Basics	60	96.7	96.7	96.7	96.7	96.7
36.	21UH49	Universal Human Values	60	100	100	100	100	100
37.	21INT49	Inter/Intra Institutional Internship	70	100	100	100	100	100
38.	21MATDIP41	Additional Mathematics – II	60	100	100	100	100	100
39.	21EC51	Digital Communication	60	100	100	100	100	100
40.	21EC52	Computer Organization & ARM Microcontroller	60	93.3	96.7	100	100	96.7
41.	21EC53	Computer Communication Networks	60	96.7	83.3	83.3	93.3	86.7
42.	21EC54	Electromagnetic Waves	60	70	70	73.3	70	73.3
43.	21ECL55	Communication Lab II	70	100	100	100	100	100
44.	21RMI56	Research Methodology & Intellectual Property Rights	60	90	86.7	86.7	76.7	80
45.	21CIV57	Environmental Studies	60	100	100	96.7	100	
46.	21EC581	IOT Lab	70	100	100	100	100	100
47.	21EC61	Technological Innovation Management & Entrepreneurship	60	100	96.7	96.7	100	90
48.	21EC62	Microwave Theory & Antennas	60	76.7	66.7	70	66.7	56.7
49.	21EC63	VLSI Design & Testing	60	76.7	80	80	56.7	50
50.	21EC643	Python Programming	60	96.7	100	100	93.3	100
51.	21CS654	Programming in JAVA	60	73.3	76.7	73.3	76.7	73.3
52.	21ECL66	VLSI Lab	70	76.7	76.7	76.7	76.7	76.7
53.	21ECMP67	Mini Project	70	100	100	100	100	100
54.	21INT68	Societal Internship	70	93.3	80	90	76.7	80
55.	21EC71	Advanced VLSI	60	100	100	100	100	100
56.	21EC72	Optical and Wireless Communications	60	93.3	100	96.8	96.8	96.8
57.	21EC733	DSP Algorithms and Architecture	60	100	100	100	100	100
58.	21EC741	IOT & Wireless Sensor Networks	60	100	100	100	100	100
59.	21CS752	Introduction to AI & ML	60	100	100	100	100	100
60.	21EC76	Project Work	70	100	100	100	100	100
61.	21EC81	Technical Seminar	70	100	100	96.7	100	100
62.	21INT822	Industry Internship	70	100	100	100	100	100

3.8 Attainment of Program Outcomes and Program Specific Outcomes (25)

PO Attainment

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
21MAT11	1.9	1.9	2	0.7	2	PO6	PO7	PO8	PO9	PO10	1.9	PO12
21PHY12	1.3	1.3	1.2	1.1	1.1	1.3	1.3	PO8	PO9	PO10	1.3	PO12
21ELE13	0.9	0.9	0.7	0.8	0.9	0.6	0.6	0.6	0.6	0.6	0.9	PO12
21CIV14	2.1	2.1	2	2.1	PO5	2	2	2	2.1	2	2	PO12
21EVN15	2.4	2.5	2.5	2.4	2.4	2.5	PO7	PO8	2.5	PO10	2.5	PO12
21PHYL16	2.5	2.5	2.5	PO4	2.5	2.5	PO7	PO8	PO9	PO10	2.5	PO12
21ELEL17	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	PO12
21EGH18	PO1	PO2	2.4	PO4	PO5	2.4	PO7	2.4	2.2	PO10	2.4	PO12
21IDT19	2	2	2	2	PO5	PO6	PO7	2	PO9	PO10	2	PO12
21MAT21	1.9	2	1.9	PO4	PO5	PO6	PO7	PO8	PO9	PO10	1.9	PO12
21CHE22	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	PO9	2.3	2.3	PO12
21PSP23	2.1	2.1	2.1	2.1	2	PO6	PO7	PO8	2.1	2.1	2.1	PO12
21ELN24	1.7	1.7	1.6	1.7	1.7	PO6	PO7	PO8	1.6	1.6	1.7	PO12
21EME25	2.6	2.5	2.5	2.5	2.6	2.5	2.5	PO8	PO9	PO10	2.6	PO12
21CHEL26	2.7	2.7	PO3	PO4	PO5	2.7	2.7	2.7	PO9	PO10	2.7	PO12
21CPL27	2.7	2.7	2.8	2.8	2.8	PO6	PO7	PO8	PO9	PO10	PO11	PO12
21EGH28	PO1	PO2	2.5	PO4	PO5	2.5	PO7	2.5	2.6	PO10	2.5	PO12
21SFH29	PO1	PO2	PO3	PO4	PO5	PO6	2.1	2.1	2.1	PO10	2.1	PO12
21MAT31	1.8	1.8	1.7	PO4	PO5	1.8	1.8	1.8	PO9	PO10	1.8	PO12
21EC32	2.4	2.5	2.3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	2.5	PO12
21EC33	1.4	1.5	1.4	PO4	PO5	PO6	PO7	PO8	PO9	PO10	1.4	PO12
21EC34	2.2	2.2	2.2	2.2	2.2	2.2	2.2	PO8	2.2	2.2	2.2	PO12
21ECL35	3	3	3	3	3	3	3	3	3	3	3	PO12
21UH36	PO1	PO2	PO3	PO4	PO5	3	3	2.8	3	PO10	3	PO12
21KSK37/21H	PO1	PO2	PO3	PO4	PO5	PO6	2.8	2.7	3	PO10	2.8	PO12
21EC383	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	PO12
21MAT41	1.5	1.5	1.6	PO4	1.7	2	2	2	2	PO10	1.5	PO12
21EC42	2.4	2.3	2.4	PO4	PO5	2.3	2.2	PO8	PO9	2.3	2.3	PO12
21EC43	2.6	2.7	2.7	PO4	2.6	2.6	2.6	2.6	2.6	PO10	2.6	PO12
21EC44	1.3	1.4	1.4	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.4	PO12
21BE45	2.7	2.5	2.5	PO4	PO5	2.6	2.6	2.6	2.6	2.6	2.6	PO12
21ECL46	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	PO12
21CIP47	PO1	PO2	PO3	PO4	PO5	PO6	2.9	2.8	2.9	PO10	2.9	PO12

21EC482	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	PO12
21UH49	PO1	PO2	PO3	PO4	PO5	3	3	3	3	PO10	3	PO12
21INT49	3	3	3	3	3	3	3	3	3	3	3	PO12
21EC51	3	3	3	PO4	3	3	3	3	3	3	3	PO12
21EC52	2.9	2.9	2.9	PO4	3	3	2.9	2.9	3	PO10	2.9	PO12
21EC53	2.7	2.7	2.7	PO4	2.6	2.7	2.7	2.7	2.7	PO10	2.6	PO12
21EC54	2.1	2.1	2.2	PO4	2.1	PO6	PO7	PO8	PO9	PO10	2.1	PO12
21ECL55	3	3	3	3	3	3	3	3	3	1	3	PO12
21RMI56	PO1	2.6	PO3	2.6	PO5	PO6	2.5	PO8	2.5	2.5	2.5	PO12
21CIV57	PO1	PO2	PO3	PO4	PO5	3	3	PO8	PO9	PO10	3	PO12
21EC581	3	3	3	PO4	PO5	3	3	PO8	3	PO10	3	PO12
21EC61	PO1	PO2	PO3	PO4	PO5	2.9	PO7	2.9	2.9	2.9	2.9	PO12
21EC62	2	2	2	2.1	1.9	2.5	2	2	2	PO10	PO11	PO12
21EC63	2.1	2.1	2.2	2	2.1	2.1	2.1	2.1	2.1	2.1	1.9	PO12
21EC643	3	2.9	3	2.9	PO5	2.9	2.9	3	2.9	PO10	2.9	PO12
21CS654	2.2	2.2	2.2	2.2	2.2	2.2	PO7	2.3	2.2	2.2	2.2	PO12
21ECL66	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	PO12
21ECMP67	3	3	3	3	3	3	3	3	3	3	3	PO12
21INT68	2.6	2.6	2.6	2.7	2.7	2.8	2.3	2.3	2.4	2.5	2.7	PO12
21EC71	3	3	3	3	3	PO6	3	PO8	PO9	PO10	PO11	PO12
21EC72	2.9	2.9	2.9	PO4	2.9	PO6	PO7	2.9	PO9	PO10	2.9	PO12
21EC741	3	3	3	PO4	3	PO6	3	3	PO9	PO10	PO11	PO12
21EC733	3	3	3	3	PO5	3	3	3	3	PO10	3	PO12
21CS752	3	3	3	3	PO5	3	3	3	3	PO10	3	PO12
21EC76	3	3	3	3	3	3	3	3	3	3	PO11	PO12
21EC81	3	3	3	2.9	2.9	3	3	3	3	3	3	PO12
21INT822	3	3	3	3	3	3	3	3	3	3	3	PO12

PO Attainment Indirect

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
GRADUATE :	2.34	2.17	2.43	2.15	2.23	2.13	2.41	2.17	2.30	2.32	2.34	PO12

PO Attainment Level

Note: The Institution can fix the weightage of the indirect attainment maximum up to 20%.

Define the Weightage for Indirect Attainment:

Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Direct Attainment	2.44	2.44	2.43	2.39	2.45	2.55	2.55	2.55	2.55	2.38	2.45	0
InDirect Attainment	2.34	2.17	2.43	2.15	2.23	2.13	2.41	2.17	2.30	2.32	2.34	0
Overall Attainment	2.46	2.42	2.42	2.37	2.40	2.49	2.54	2.50	2.51	2.51	2.52	2.43

PSO Attainment

Course	PSO1	PSO2	PSO3
21MAT11	1.9	1.7	PSO3
21PHY12	1.3	1.4	PSO3
21ELE13	0.9	0.9	PSO3
21CIV14	2.1	PSO2	PSO3
21EVN15	2.5	2.4	PSO3
21PHYL16	2.5	PSO2	PSO3
21ELEL17	2.6	2.6	PSO3
21EGH18	2.2	2.2	PSO3
21IDT19	2	PSO2	PSO3
21MAT21	1.9	PSO2	PSO3
21CHE22	2.3	PSO2	PSO3
21PSP23	2.1	2.1	PSO3
21ELN24	1.7	PSO2	PSO3
21EME25	2.6	PSO2	PSO3
21CHEL26	2.7	PSO2	PSO3
21CPL27	2.8	2.8	2.7
21EGH28	2.5	2.5	PSO3
21SFH29	2.1	PSO2	PSO3
21MAT31	1.8	PSO2	PSO3
21EC32	PSO1	2.5	2.5
21EC33	PSO1	1.4	1.4
21EC34	PSO1	2.2	PSO3
21ECL35	PSO1	PSO2	3
21UH36	PSO1	3	PSO3
21KSK3721KBK37	2.9	PSO2	PSO3
21EC383	PSO1	PSO2	2.8
21MAT41	1.5	PSO2	PSO3
21EC42	PSO1	2.3	2.3
21EC43	1.6	1.6	PSO3
21EC44	PSO1	1.3	PSO3
21BE45	2.6	PSO2	PSO3

21ECL46	PSO1	PSO2	2.4
21CIP47	2.9	PSO2	PSO3
21EC482	PSO1	PSO2	2.9
21UH49	PSO1	3	3
21INT49	PSO1	3	3
21EC51	PSO1	3	PSO3
21EC52	PSO1	3	2.9
21EC53	PSO1	2.6	PSO3
21EC54	PSO1	2.1	PSO3
21ECL55	PSO1	PSO2	3
21RMI56	PSO1	PSO2	2.6
21CIV57	3	PSO2	PSO3
21EC581	PSO1	3	3
21EC61	PSO1	PSO2	2.9
21EC62	PSO1	2	2
21EC63	2.2	1.8	PSO3
21EC643	PSO1	2.9	PSO3
21CS654	PSO1	2.2	PSO3
21ECL66	PSO1	PSO2	2.3
21ECMP67	PSO1	PSO2	3
21INT68	PSO1	2.5	2.4
21EC71	PSO1	3	PSO3
21EC72	PSO1	2.9	PSO3
21EC741	PSO1	1	PSO3
21EC733	PSO1	3	PSO3
21CS752	PSO1	3	PSO3
21EC76	PSO1	3	3
21EC81	PSO1	3	3
21INT822	PSO1	3	3

PSO Attainment Indirect

Survey	PSO1	PSO2	PSO3
GRADUATE SURVEY	2.34	2.23	2.26

PSO Attainment Level

Course	PSO1	PSO2	PSO3
Direct Attainment	2.2	2.39	2.69
InDirect Attainment	2.34	2.23	2.26

Overall Attainment	2.24	2.39	2.59
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4 STUDENTS' PERFORMANCE (120)

Total Marks 68.93

Table No. 4A: Admission details for the program excluding those admitted through multiple entry and exit points.

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	2025-26 (CAY)	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)	2021-22 (CAYm4)	2020-21 (CAYm5)	2019-20 (CAYm6)
N=Sanctioned intake of the program (as per AICTE /Competent authority)	60	54	54	54	54	54	54
N1=Total no. of students admitted in the 1st year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program	42	54	49	44	31	5	4
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	3	9	3	6	1	0
N3=Separate division if any	0	0	0	0	0	0	0
N4=Total no. of students admitted in the 1st year via all supernumerary quotas	3	3	3	2	2	3	1

Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	45	60	61	49	39	9	5
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Table No. 4B: Admission details for the program through multiple entry and exit points.

	Item (No. of students admitted/exited through multiple entry and exit points) in the respective batch	2025-26 (CAY)	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)	2021-22 (LYG)	2020-21 (LYGm1)	2019-20 (LYGm2)
N52=No. of students admitted in 2nd year via multiple entry and exit points in same batch	N52=No. of students admitted in 2nd year via multiple entry and exit points in same batch	0	0	0	0	0	0	0
N53=No. of students admitted in 3rd year via multiple entry and exit points in same batch	N53=No. of students admitted in 3rd year via multiple entry and exit points in same batch	0	0	0	0	0	0	0
N54=No. of students admitted in 4th year via multiple entry and exit points in same batch	N54=No. of students admitted in 4th year via multiple entry and exit points in same batch	0	0	0	0	0	0	0
N5=N52+N53+N54	N5=N52+N53+N54	0	0	0	0	0	0	0
N61=No. of students exits after 1st year via multiple entry and exit points in same batch	N61=No. of students exits after 1st year via multiple entry and exit points in same batch	0	0	0	0	0	0	0
N62=No. of students exit after 2nd year via multiple entry and exit points	N62=No. of students exit after 2nd year via multiple entry and exit points	0	0	0	0	0	0	0
N63=No. of students exit after 3rd year via multiple entry and exit points in same batch	N63=No. of students exit after 3rd year via multiple entry and exit points in same batch	0	0	0	0	0	0	0
N6=N61+N62+N63	N6=N61+N62+N63	0	0	0	0	0	0	0

Table No. 4C: No. of students graduated within the stipulated period of the program.

Year of entry	Total no. of students (N1 + N2 + N3+ N4 + N5 - N6 as defined above)	Number of students who have successfully graduated in stipulated period of study) [Total of with Backlog + without Backlog]			
		I year	II year	III year	IV year
2025-26 (CAY)	45				
2024-25 (CAYm1)	60	47			
2023-24 (CAYm2)	61	45	53		
2022-23 (CAYm3)	49	41	44	42	
2021-22 (LYG)	39	26	30	30	30
2020-21 (LYGm1)	9	7	8	8	8
2019-20 (LYGm2)	5	5	5	5	5

4.1 Enrolment Ratio (20)

Institute Marks : 20.00

[Get Details from Table 4.1](#)

Table No.4.1.1: Student enrolment ratio in the 1st year.

Year of entry	N (From Table 4.1)	N1 (From Table 4.1)	N4 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2025-26 (CAY)	60	42	3	75.00
2024-25 (CAYm1)	54	54	3	105.56
2023-24 (CAYm2)	54	49	3	96.30

Average [(ER1 + ER2 + ER3) / 3] = 92.29 \approx 20.00

Assessment : 20.00

4.2 Success Rate of the Students in the Stipulated Period of the Program (15)

Institute Marks : 3.69

Table No.4.2.1: The success rate in the stipulated period of a program.

Item	(2021-22) LYG	(2020-21) LYGm1	(2019-20) LYGm2
A*= (No. of students admitted in the 1st year of that batch and those actually admitted in the 2nd year via lateral entry, plus the number of students admitted through multiple entry (if any) and separate division if applicable, minus the number of students who exited through multiple entry (if any).	60.00	55.00	54.00
B=No. of students who graduated from the program in the stipulated course duration	30.00	8.00	5.00
Success Rate (SR)= (B/A) * 100	50.00	14.55	9.26

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 24.60

SR Points : 3.69

Note *: If the value of A in Table No. 4.2.1 is less than the sum of the sanctioned intake (N) and the lateral entry including leftover seats (N2), then the value of A in Table No. 4.2.1 should be the sum of the sanctioned intake (N) and the lateral entry including leftover seats (N2).

4.3 Academic Performance of the First-Year Students of the Program (10)

Institute Marks : 5.91

Table No.4.3.1: Academic Performance of the First-Year Students of the Program.

Academic Performance	CAYm1(2024-25)	CAYm2(2023-24)	CAYm3 (2022-23)
Mean of CGPA or mean percentage of all successful students(X)	6.18	7.19	7.32
Y=Total no. of successful students	46.00	45.00	41.00
Z=Total no. of students appeared in the examination	57.00	52.00	46.00
API [X*(Y/Z)]	4.99	6.22	6.52

Average API[(AP1+AP2+AP3)/3] : 5.91

Assessment = Average API : 5.91

4.4 Academic Performance of the Second Year Students of the Program (10)

Table No.4.4.1: Academic Performance of the Second Year Students of the Program.

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
X=(Mean of 2nd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 2nd year/10)	6.64	7.21	7.36
Y=Total no. of successful students	53.00	44.00	30.00
Z=Total no. of students appeared in the examination	54.00	44.00	32.00
API [X * (Y/Z)]	6.52	7.21	6.90

Average API [(AP1 + AP2 + AP3)/3] : 6.88

Assessment [AverageAPI] : 6.88

4.5 Academic Performance of the Third Year Students of the Program (10)

Institute Marks : 7.29

Table No.4.5.1: Academic Performance of the Third Year Students of the Program

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
X=(Mean of 3rd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 3rd year/10)	7.24	7.54	7.41
Y=Total no. of successful students	42.00	30.00	8.00
Z=Total no. of students appeared in the examination	44.00	30.00	8.00
API [X*(Y/Z)]:	6.91	7.54	7.41

Average API [(AP1 + AP2 + AP3)/3] : 7.29

Assessment [1.5 * AverageAPI] : 7.29

4.6 Placement, Higher Studies and Entrepreneurship (30)

Institute Marks : 3.16

Table No. 4.6.1: Placement, higher studies, and entrepreneurship details.

Item	LYG (2021-22)	LYGm1(2020-21)	LYGm2(2019-20)
FS*=Total no. of final year students	60.00	55.00	54.00
X=No. of students placed	8.00	7.00	2.00
Y=No. of students admitted to higher studies	0.00	1.00	0.00
Z= No. of students taking up entrepreneurship	0.00	0.00	0.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	13.33	14.55	3.70

Average Placement Index = (P_1 + P_2 + P_3)/3: 10.53

Placement Index Points: 3.16

4.7 Professional Activities (25)

Table No. 4.7.1.1: List of active professional societies/bodies/chapters/clubs.

S.No	Name of the Professional Societies/Bodies, Chapters, Clubs
1	IEEE (Institute of Electrical and Electronics Engineers)
2	Institution of Electronics and Telecommunication Engineers (IETE)
3	International Society for Technical Education(ISTE)
4	Institution's Innovation Council(IIC)

Table No. 4.7.1.2: List of events/programs organized.**(CAYm1) 2024-25**

S.No	Name of the Professional Societies/Bodies, Chapters, Clubs	Name of the Event	National/International level	Date of Event (DD/MM/YYYY)
1	IETE	One day Workshop on "Transformation Journey for Guiding a New Generation For Entrepreneur"	National	31/05/2025
2	IETE	One day Seminar on "Multidisciplinary Approach to Learning, Critical Thinking and Soft Skills"	National	29/09/2024
3	IETE	Three days Seminar on "Memory Motivation and Life Skills"	National	28/09/2024
4	IEEE	International Conference on Intelligent Systems and Computational Networks	International	24/01/2025
5	IEEE	Inter collegiate Poster Presentation on the eve of National Science day	National	28/02/2025
6	IEEE	One day Seminar on awareness on patent	National	28/02/2025
7	IEEE	Technical Seminar on Next generation VLSI Architecture and Methodologies	National	24/05/2025
8	IEEE	Project Exhibition the Eve of Engineers Day	National	20/09/2024
9	IEEE	Quiz Competition on Electronic Circuits	National	18/12/2024
10	IEEE	Seminar on "Recent Trends in VLSI Testing"	National	13/07/2024
11	IEEE	Technical Talk on "Antennas: Basics to Smart Evolution"	National	28/06/2025
12	IIC	Celebration of "Maharishi Valmiki Jayanti"	National	17/10/2024

(CAYm2) 2023-24

S.No	Name of the Professional Societies/Bodies, Chapters, Clubs	Name of the Event	National/International level	Date of Event (DD/MM/YYYY)
1	IETE	Two days Workshop on "Emerging Trends on Cloud Computing - AWS"	National	09/02/2024
2	IETE	One day Seminar on "Transformations in IT Industry"	National	23/07/2024
3	IIC	One Day Seminar on "TECHNOLOGY ADVANCEMENT IN CANCER DIAGNOSIS AND IT'S AWARENESS"	National	08/02/2024
4	IETE	One day Seminar on "Motivation to Raise Benchmark: How to set goals?"	National	07/09/2023
5	IEEE	Inauguration of IEEE Student Chapter "Microwave theory and technology Society" and Seminar on "Role of IEEE in Engineering Education"	National	23/11/2023
6	IEEE	Seminar on ""How to Write Research Paper or Article"	National	23/12/2023
7	IIC	Seminar on "Technology Advancement in Cancer Diagnosis and it's Awareness"	National	08/02/2024

(CAYm3) 2022-23

S.No	Name of the Professional Societies/Bodies, Chapters, Clubs	Name of the Event	National/International level	Date of Event (DD/MM/YYYY)
1	IETE	One day Seminar on "Universal Human Values"	National	02/12/2022
2	IETE	One day Seminar on "Women in Developing Nation"	National	02/12/2022
3	IETE	One day Seminar on "Sell Yourself for Better Price"	National	06/12/2022
4	IETE	One day Seminar on "Motivation-A Benchmark"	National	07/12/2022
5	IEEE	"Inauguration Of IEEE Student Branch"	National	05/05/2023
6	IEEE	Expert Talk on " Master in the art of Paper Writing: Essential Strategies and Techniques"	National	26/05/2023

4.7.2 Student's Participations in Professional Events (10)

Institute Marks : 8.00

Table No. 4.7.2.1: List of students participated in professional events.**(CAYm1) 2024-25**

S.No	Name of the Student	Name of the Event	State /State /National/International level	Date of Event (DD/MM/YYYY)	Name of Award
1	Sanjana Biradar	Poster Presentation	National	23/08/2024	Participant
2	Vinayashree	Poster Presentation	National	23/08/2024	Participant
3	Sandhya	Poster Presentation	National	23/08/2024	Participant
4	Vinayashree	Kalataranga	National	07/03/2025	Participant
5	Suryavanshi Pranav	Kalataranga	National	07/03/2025	Participant
6	Sudam	Kalataranga	National	07/03/2025	Participant
7	Shaktidevi	Kalataranga	National	07/03/2025	Participant
8	Sandeep	Kalataranga	National	07/03/2025	Participant
9	Shivani N	Poster Presentation on "Sustainability Driven Innovations in Electronics"	National	08/01/2025	Participant
10	Agre Shradha	Poster Presentation on "Sustainability Driven Innovations in Electronics"	National	08/01/2025	Participant
11	Pallavi	Poster Presentation on "Sustainability Driven Innovations in Electronics"	National	08/01/2025	Participant
12	Suryaprakash	Poster Presentation on "Sustainability Driven Innovations in Electronics"	National	08/01/2025	Participant

(CAYm2) 2023-24

S.No	Name of the Student	Name of the Event	State /National/International level	Date of Event (DD/MM/YYYY)	Name of Award
1	Vivek	Certification Course on "Advanced Industrial Automation and Control"	National	25/09/2023	Course Completion Certificate
2	Vinayak	Certification Course on "Advanced Industrial Automation and Control"	National	25/09/2023	Course Completion Certificate
3	Soumyashree	Olympus - 2K23	National	15/09/2023	Participant
4	Suryavanshi Pranav	Poster Presentation on National Science Day	National	28/02/2024	Participant
5	Anjali	Poster Presentation on National Science Day	National	28/02/2024	Participant
6	Akash	Poster Presentation on National Science Day	National	28/02/2024	Participant
7	Suman	Project Exhibition in "Meraki-2024"	National	03/05/2024	Participant
8	Suryaprakash	Project Exhibition in "Meraki-2024"	National	03/05/2024	Participant
9	B Triveni	Project Exhibition in "Meraki-2024"	National	03/05/2024	Participant
10	Pallavi	Project Exhibition in "Meraki-2024"	National	03/05/2024	Participant
11	Divyalaxmi	Project Exhibition in "Meraki-2024"	National	03/05/2024	Participant
12	Radhika	Project Exhibition in "Meraki-2024"	National	03/05/2024	Participant

(CAYm3) 2022-23

S.No	Name of the Student	Name of the Event	State /National/International level	Date of Event (DD/MM/YYYY)	Name of Award
1					

4.7.3 Publication of Journals, Magazines, Newsletters, etc. in the Department (5)

Institute Marks : 5.00

Table No. 4.7.3.1: List of students involved in publication of journals, magazines, and newsletters, etc. in the Department.**(CAYm1) 2024-25**

S.No	Name of the Journal, Magazine, Newsletter	Name of the Editor	Name of the Student	Semester	No. of Issues	Hard copy/Soft copy
1	The Resonance	Dr. Sagarkumar Buyya	Adithi D & Rameshwari	4	6	Hard Copy
2	The Resonance	Dr. Sagarkumar Buyya	Adithi D & Rameshwari	3	5	Hard Copy

(CAYm2) 2023-24

S.No	Name of the Journal, Magazine, Newsletter	Name of the Editor	Name of the Student	Semester	No. of Issues	Hard copy/Soft copy
1	The Resonance	Dr. Sagarkumar Buyya	Suman & Suryaprakash	4	4	Hard Copy
2	The Resonance	Dr. Sagarkumar Buyya	Suman & Suryaprakash	3	3	Hard Copy

(CAYm3) 2022-23

S.No	Name of the Journal, Magazine, Newsletter	Name of the Editor	Name of the Student	Semester	No. of Issues	Hard copy/Soft copy
1	The Resonance	Dr. Sagarkumar Buyya	Divya & Vinayak	4	2	Hard Copy
2	The Resonance	Dr. Sagarkumar Buyya	Divya & Vinayak	3	1	Hard Copy

4.7.4 Student Publications (5)

Institute Marks : 4.00

Table No. 4.7.4.1: List of student publications.**(CAYm1) 2024-25**

S.No	Name of the Student	Semester	Name of the Publisher	Name of the Journal/ Conference, etc.	Volume No.	Issue No.	Name of the Award if any
1	Ranjeeta,Sumalata,Swati & Basavaraj	7	Innovative Publishers	JOURNAL OF SCIENTIFIC RESEARCH AND TECHNOLOGY	2	12	NA
2	Sanjana, Machkuri Divya & K Vaishnavi	7	Innovative Publishers	JOURNAL OF SCIENTIFIC RESEARCH AND TECHNOLOGY	2	12	NA
3	Ganesh, Manikeshwari, Sushma Reddy & Prashant D	7	Innovative Publishers	JOURNAL OF SCIENTIFIC RESEARCH AND TECHNOLOGY	2	12	NA
4	Divya, Sandhya Rani, Vinayak & Sai Prassan	7	Innovative Publishers	JOURNAL OF SCIENTIFIC RESEARCH AND TECHNOLOGY	2	12	NA
5	Archana, Attoffa Jabeen, Priyanka & Pavan	7	Innovative Publishers	JOURNAL OF SCIENTIFIC RESEARCH AND TECHNOLOGY	2	12	NA
6	Premkumar, Prithviraj, Subhash & Vijaylaxmi	7	Innovative Publishers	JOURNAL OF SCIENTIFIC RESEARCH AND TECHNOLOGY	2	12	NA
7	Darshan, Nagesh & Parameshwar Reddy	7	Innovative Publishers	JOURNAL OF SCIENTIFIC RESEARCH AND TECHNOLOGY	2	12	NA
8	Adinath, Sudhakar, Ashfaq & Inayath	7	Innovative Publishers	JOURNAL OF SCIENTIFIC RESEARCH AND TECHNOLOGY	2	12	NA

(CAYm2) 2023-24

S.No	Name of the Student	Semester	Name of the Publisher	Name of the Journal/ Conference, etc.	Volume No.	Issue No.	Name of the Award if any
1	Nagaraj Hatte, Madhukeshav & Ravikiran	7	MAT Journals	Journal of Instrumentation and Innovation Sciences	9	2	NA

(CAYm3) 2022-23

S.No	Name of the Student	Semester	Name of the Publisher	Name of the Journal/ Conference, etc.	Volume No.	Issue No.	Name of the Award if any
1							

5 FACULTY INFORMATION (100)

Total Marks 63.17

Sr.No	Name of the Faculty	PAN No.	APAAR faculty ID*(if any)	Highest degree	University	Area of Specialization	Date of Joining in this Institution	Experience in years in current institute	Designation at Time Joining in this Institution	Present Designation	The date on which Designated as Professor/ Associate Professor if any	Nature of Association (Regular/ Contract/ Ad hoc)	Currently Associated (Y/N)	In case of NO, Date of Leaving	IS HOD?
1	Dr. Sharanbasappa Shetkar	BADPS6278L	NA	Ph.D	Visvesvaraya Technological University	Wireless Communication	01/08/2012	13.6	Assistant Professor	Professor	01/10/2025	Regular	Yes		Yes
2	Dr. Basavalinga Swamy	AFBPH7558A	NA	Ph.D	Visvesvaraya Technological University	Antenna's /VLSI	01/02/2013	13	Assistant Professor	Associate Professor	01/05/2023	Regular	Yes		No
3	Dr. Sagarkumar Buyya	AORPB3916M	NA	Ph.D	Visvesvaraya Technological University	Artificial Intelligence	01/08/2012	13.6	Assistant Professor	Associate Professor	01/08/2024	Regular	Yes		No
4	Dr. Vinita Patil	BNNPP1154M	NA	Ph.D	Visvesvaraya Technological University	Image Processing	01/02/2021	5	Professor	Professor	01/02/2021	Regular	Yes		No
5	Chowdhary Sadhana Rajendra	AGXPC5245Q	NA	M.Tech	Visvesvaraya Technological University	Power Electronics	01/08/2013	12.6	Assistant Professor	Assistant Professor		Regular	Yes		No
6	Chaya Bhavi	AVPPC6422Q	NA	M.Tech	Visvesvaraya Technological University	Digital Electronics	01/12/2021	4.2	Assistant Professor	Assistant Professor		Regular	Yes		No
7	Lata	AWCPL3270B	NA	M.Tech	Visvesvaraya Technological University	VLSI	06/12/2022	3.2	Assistant Professor	Assistant Professor		Regular	Yes		No
8	Bashetty Pallavi	GTFPP4737R	NA	M.Tech	Visvesvaraya Technological University	VLSI	21/10/2024	1.3	Assistant Professor	Assistant Professor		Regular	Yes		No
9	VIJAYLAXMI	BSUPV3008G	NA	M.Tech	Visvesvaraya Technological University	Digital Communication and Networking	15/07/2025	0.6	Assistant Professor	Assistant Professor		Regular	Yes		No
10	Shravanti	AOEPH5729M	NA	M.Tech	JNTU, Hyderabad	VLSI System Design	15/07/2025	0.6	Assistant Professor	Assistant Professor		Regular	Yes		No
11	Rakesh T	BCQPR6702R	NA	M.Tech	Dr. Babasaheb Ambedkar Marathwada University	Digital Communication	15/07/2025	0.6	Assistant Professor	Assistant Professor		Regular	Yes		No
12	Akshata	FUKPB7939A	NA	M.Tech	Visvesvaraya Technological University	VLSI	01/01/2026	0.1	Assistant Professor	Assistant Professor		Regular	Yes		No
13	Aparna Hugar	BRGPA0996R	NA	M.Tech	Sharnbasva University	Digital Communication & Networking	01/04/2023	2.3	Assistant Professor	Assistant Professor		Regular	No	14/07/2025	No
14	Geetanjali Math	DHMPM4025H	NA	M.Tech	Visvesvaraya Technological University	Signal Processing	01/04/2023	2.1	Assistant Professor	Assistant Professor		Regular	No	17/05/2025	No

15	Nagesh Dadapur	BABPD4276K	NA	M.Tech	JNTU, Hyderabad	Embedded Systems	01/02/2016	8.2	Lecturer	Assistant Professor		Regular	No	30/04/2024	No
16	Jyoti	BIPPJ2293A	NA	M.Tech	Visvesvaraya Technological University	Digital Communication & Networking	19/04/2024	1.3	Assistant Professor	Assistant Professor		Regular	No	30/07/2025	No
17	Mahesh Patil	CHIPM9820M	NA	M.Tech	Visvesvaraya Technological University	Power Electronics	01/07/2024	1.2	Assistant Professor	Assistant Professor		Regular	No	16/09/2025	No
18	Bhakti Shetkar	EAMPP9147M	NA	M.Tech	Visvesvaraya Technological University	Digital Communication & Networking	01/08/2022	1.1	Assistant Professor	Assistant Professor		Regular	No	30/09/2023	No

5.1 Student-Faculty Ratio (SFR) (30)

No. of UG(Engineering) programs in Department including allied departments/ clusters (UGn):

UG1=1st UG program

UGn=nth UG program

B= No. of Students in UG 2nd year (ST)

C= No. of Students in UG 3rd year (ST)

D= No. of Students in UG 4th year (ST)

No. of PG (Engineering) programs in Department including allied departments/ clusters (PGm):

PG1=1st PG program.

PGm=mth PG program

A= No. of Students in PG 1st year

B= No. of Students in PG 2nd year

Student Faculty Ratio (**SFR**) = S/F

S= No. of students of all programs in the Department including all students of allied departments/clusters.

No. of students (ST)=Sanctioned Intake (SA)+ Actual admitted students via lateral entry including leftover seats (L) if any (limited to 10 % of SA)

Students who admitted under supernumerary quotas (SNQ, EWS, etc) will not be considered in calculating SFR value. Those students are exempted.

F=Total no. of regular or contractual faculty members (Full Time) in the Department, including allied departments/clusters (excluding first year faculty (The faculty members who have a 100% teaching load in the first-year courses)).

UG

No. of UG(Engineering) programs in Department including allied departments/clusters(UGn):

Electronics & Communication Engineering						
Year of Study	CAY		CAYm1		CAYm2	
	(2025-26)		(2024-25)		(2023-24)	
	Sanction Intake	Actual admitted through lateral entry students	Sanction Intake	Actual admitted through lateral entry students	Sanction Intake	Actual admitted through lateral entry students
2nd Year	54	3	54	5	54	3
3rd Year	54	5	54	3	54	5
4th Year	54	3	54	5	54	1
Sub-Total	162	11	162	13	162	9
Total	173		175		171	
Grand Total	<input type="text" value="173"/>		<input type="text" value="175"/>		<input type="text" value="171"/>	

PG

No. of PG Programs in the Department

VLSI Design & Embedded Systems						
Year of Study	CAY(2025-26)		CAYm1(2024-25)		CAYm2 (2023-24)	
	Sanction Intake		Sanction Intake		Sanction Intake	
1st Year	16		16		16	
2nd Year	16		16		16	
Total	32		32		32	
Grand Total	<input type="text" value="32"/>		<input type="text" value="32"/>		<input type="text" value="32"/>	

SFR

No. of UG Programs in the Department

No. of PG Programs in the Department

Electronics & Communication Engineering/VLSI Design & Embedded Systems

Description	CAY(2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)
UG1.B	57	59	57
UG1.C	59	57	59
UG1.D	57	59	55
UG1: Electronics & Communication Engineering	173	175	171
PG1.A	16	16	16
PG1.B	16	16	16
PG1: VLSI Design & Embedded Systems	32	32	32
DS=Total no. of students in all UG and PG programs in the Department	205	207	203
AS=Total no. of students of all UG and PG programs in allied departments	0	0	0
S=Total no. of students in the Department (DS) and allied departments (AS)	S1= 205	S2= 207	S3= 203
DF=Total no. of faculty members in the Department	11	11	10
AF= Total no. of faculty members in the allied Departments	0	0	0
F=Total no. of faculty members in the Department (DF) and allied Departments (AF)	F1= 11	F2= 11	F3= 10
FF=The faculty members in F who have a 100% teaching load in the first-year courses	1	1	1
Student Faculty Ratio (SFR)=S/(F-FF)	SFR1= 20.50	SFR2= 20.70	SFR3= 22.56
Average SFR for 3 years	SFR= 21.25		

Average SFR for three assessment years : 21.25

Assessment SFR : 14

5.2 Faculty Qualification (25)

Institute Marks : 16.17

Year	X	Y	RF	$FQ = 2.5 \times [(10X + 4Y) / RF]$
2025-26(CAY)	4	7	10.00	17.00
2024-25(CAYm1)	4	7	10.00	17.00
2023-24(CAYm2)	3	7	10.00	14.50

Average Assessment : 16.17

5.3 Faculty Cadre Proportion (25)

Year	Professors		Associate Professors		Assistant Professors	
	Required F1	Available	Required F2	Available	Required F3	Available
CAY(2025-26)	1.00	1.00	2.00	3.00	6.00	7.00
CAYm1(2024-25)	1.00	1.00	2.00	3.00	6.00	7.00
CAYm2(2023-24)	1.00	1.00	2.00	2.00	6.00	7.00
Average Numbers	1.00	1.00	2.00	2.67	6.00	7.00

Cadre Ratio Marks [(AF1 / RF1) + [(AF2 / RF2) * 0.6] + [(AF3 / RF3) * 0.4]] * 12.5 : 25.00

5.4 Visiting/Adjunct/Emeritus Faculty etc. (10)

Institute Marks :

Table No. 5.4.1: List of visiting/adjunct faculty/professor of practice and their teaching and practical loads.

(CAYm1) 2024-25

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Vivekanand Biradar	Managing Director	VIT, Hyderabad	JAVA with Full Stack	180.00

(CAYm2) 2023-24

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1					

(CAYm3) 2022-23

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1					

5.5 Faculty Retention (10)

Description	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)
RF=No. of required faculty in the Department including allied Departments to adhere to the 20:1 Student-Faculty ratio, with calculations based on both student numbers and faculty requirements as per section 5.1 of SAR; (RF=S/20).	10	10	
AF=The no. of available faculty members in the Department including allied Departments	11	10	
A= The no. of faculty members at the current institute with less than 1 year of experience (A in AF)	0	0	
B= The no. of faculty members at the current institute with more than 1 year and less than 2 years of experience (B in AF)	2	0	
C= The no. of faculty members at the current institute with more than 2 years and less than 3 years of experience (C in AF)	2	2	
D= The no. of faculty members at the current institute with more than 3 years and less than 4 years of experience (D in AF)	1	1	
E= The no. of faculty members at the current institute with more than 4 years of experience (E in AF)	6	7	
$FR = ((A*0) + (B*1) + (C*2) + (D*3) + (E*4)) / RF * 2.50$ (points limited to 10)	9	8	

Average : 8.00

Assessment Marks : 8.00

6 FACULTY CONTRIBUTIONS (120)

Total Marks 70.37

6.1 Professional Development Activities (60)

Table No. 6.1.1.1: List of faculty members and their memberships.

S.No	Name of the Faculty	Name of the Professional Society /Body at National and International Level	Name of the Grade/ Level/Position
1	Dr. Sharanbasappa Shetkar	THE INDIAN SOCIETY FOR TECHNICAL EDUCATION (ISTE)	Life Member: LM-130727
2	Dr. Sharanbasappa Shetkar	THE INSTITUTION OF ELECTRONICS AND TELECOMMUNICATION ENGINEERS (IETE)	Member: M-502187
3	Dr. Sharanbasappa Shetkar	Institute of Electrical and Electronics Engineers (IEEE)	Senior Member:97705216
4	Dr. Vinita Patil	Institute of Electrical and Electronics Engineers (IEEE)	Member :93177187
5	Dr. Vinita Patil	THE INDIAN SOCIETY FOR TECHNICAL EDUCATION (ISTE)	Life Member: LM 134590
6	Dr. Vinita Patil	THE INSTITUTION OF ELECTRONICS AND TELECOMMUNICATION ENGINEERS (IETE)	Member :M-502096
7	Dr. Basavalinga Swamy	THE INDIAN SOCIETY FOR TECHNICAL EDUCATION (ISTE)	Life Member: LM- 130728
8	Dr. Basavalinga Swamy	THE INSTITUTION OF ELECTRONICS AND TELECOMMUNICATION ENGINEERS (IETE)	Member:M-502191
9	Dr. Basavalinga Swamy	Institute of Electrical and Electronics Engineers (IEEE)	Senior Member:98638470
10	Sadhana Choudhary	THE INDIAN SOCIETY FOR TECHNICAL EDUCATION (ISTE)	LM:138729
11	Sadhana Choudhary	THE INSTITUTION OF ELECTRONICS AND TELECOMMUNICATION ENGINEERS (IETE)	F-502154
12	Rakesh T	THE INDIAN SOCIETY FOR TECHNICAL EDUCATION (ISTE)	LM:92889
13	Chaya	THE INSTITUTION OF ELECTRONICS AND TELECOMMUNICATION ENGINEERS (IETE)	LM:504902
14	Dr. Sagarkumar Buyya	THE INDIAN SOCIETY FOR TECHNICAL EDUCATION (ISTE)	Life Member: LM-130730
15	Dr. Sagarkumar Buyya	THE INSTITUTION OF ELECTRONICS AND TELECOMMUNICATION ENGINEERS (IETE)	F-502184
16	Chaya	Institute of Electrical and Electronics Engineers (IEEE)	98632632
17	Dr. Sagarkumar Buyya	Institute of Electrical and Electronics Engineers (IEEE)	96443890
18	Sadhana Choudhary	Institute of Electrical and Electronics Engineers (IEEE)	93864920
19	Rakesh T	Institute of Electrical and Electronics Engineers (IEEE)	101889371
20	Lata J	Institute of Electrical and Electronics Engineers (IEEE)	100073821
21	Akshata B	Institute of Electrical and Electronics Engineers (IEEE)	102276977
22	Vijaylaxmi Wade	Institute of Electrical and Electronics Engineers (IEEE)	102261317

6.1.2 Faculty as Resource Persons or Participants in STTPs/FDPs (15)

Institute Marks : 5.00

6.1.2.1 Faculty as Resource Persons in STTPs/FDPs (5)

Table No. 6.1.2.1: List of faculty members as resource person in STTP/FDP events.**(CAYm1) 2024-25**

S.No	Name of the Faculty as Resource Person	Name of the STTP/FDP	Date (DD/MM/YYYY)	Location	Organized by
1	Dr. Vinita Patil	Career Guidance for Engineering Students	06/03/2025	Bidar	CSE Dept., GNDEC
2	Dr. Vinita Patil	Applications of AI in biometrics	04/02/2025	Kalaburagi	Sharnbasva University
3	Dr.Sharanbasappa Shetkar	Outcome based education	5/4/2025	Bangalore	Sri Lakshmi college of management and science

(CAYm2) 2023-24

S.No	Name of the Faculty as Resource Person	Name of the STTP/FDP	Date (DD/MM/YYYY)	Location	Organized by
1	Dr.Sagarkumar Buyya	Teacher empowerment & skill development	7/2/2024	Bangalore	Sri Lakshmi college of management and science
2	Dr.Basavaling Swamy	Digital teaching & learning tools	9/12/2022	Bangalore	Sri Lakshmi college of management and science
3	Dr.Vinita Patil	IoT & its applications	21/11/2022	Bangalore	R R Institute of technology

(CAYm3) 2022-23

S.No	Name of the Faculty as Resource Person	Name of the STTP/FDP	Date (DD/MM/YYYY)	Location	Organized by
1	Dr.Basavaling Swamy	ASPI Protocol design in Verilog & simulation	20/12/2023	Bangalore	R R Institute of technology

6.1.2.2 Faculty Members' Participation in STTPs/FDPs (10)

Institute Marks : 8.37

Name of the faculty	Max 5 Per Faculty		
	2024-25(CAYm1)	2023-24(CAYm2)	2022-23(CAYm3)
Rakesh T	2.00	0.00	0.00
Dr.Basavalinga Swamy	2.00	3.00	2.00
Chaya B	2.00	4.00	2.00
Dr. Vinita Patil	3.00	3.00	1.00
Dr.Sharanbasappa Shetkar	2.00	4.00	1.00
Dr.Sagarkumar Buyya	2.00	2.00	2.00
Sadhana C	2.00	4.00	2.00
Bashetty Pallavi	2.00	2.00	1.00
Aparna Hugar	2.00	1.00	1.00
Geetanjali Math	1.00	1.00	0.00
Jyoti	1.00	0.00	0.00
Mahesh	1.00	0.00	0.00
Lata.j	2.00	2.00	1.00
Vijaylaxmi W	0.00	0.00	0.00
Akshata,B	0.00	0.00	0.00
Shravanti	3.00	0.00	0.00
Sum	27.00	26.00	13.00
RDF = Number of faculty required to comply with the 20:1 student - faculty ratio in the Department alone, as per section 5.1 of SAR(RDF= DS / 20).	10.25	10.35	10.15
Assessment Points (AP)= 2 * (Sum/(0.5* RDF)) (Points limited to 5 for each assessment year)	10.00	10.00	5.12

Average assessment over 3 years: 8.37

Table No. 6.1.4.1: List of faculty members obtained certification of MOOCs for the past 3 years.

S.No	Name of the Faculty	Name of Course Passed	Course Offered by (agency)	Grade obtained if any
1	Dr. Basavalinga Swamy	System Design Through Verilog	NPTEL	56%

6.1.4 FDP/STTP Organized by the Department (10)

Institute Marks : 8.00

Table No. 6.1.5.1: List of FDPs/STPs organized by Department for the past 3 years.**(CAYm1) 2024-25**

S.No	Name of the Program	Date of the Program(DD/MM/YYYY)	Duration	Name of the Speaker & Designation and Organization	No. of People Attended
1	Artificial Intelligence & Machine Learning	26/12/2025	5 days	Mr.Bhargav P Raj, AI Engineer, Cadmaxx Solutions Pvt. Ltd. Bengaluru	56
2	STEM Robotics	01/04/2025	10 days	Mr. Piyush Srivastava, MD & CEO, VST Industries Ltd. Hyderabad	10

(CAYm2) 2023-24

S.No	Name of the Program	Date of the Program(DD/MM/YYYY)	Duration	Name of the Speaker & Designation and Organization	No. of People Attended
1	Microsoft Power BI Data Analysis.	10/06/2024	5 days	Mrs. Sumathi jeevanandham Trainee manager ICT Academy Bengaluru	56

(CAYm3) 2022-23

S.No	Name of the Program	Date of the Program(DD/MM/YYYY)	Duration	Name of the Speaker & Designation and Organization	No. of People Attended
1	LLMs to Agenetic AI System Comprehensive Curriculum	12/12/2022	5 days	Mr.Bhargav P Raj, AI Engineer, Cadmaxx Solutions Pvt. Ltd. Bengaluru	20

6.1.5 Faculty Support in Student Innovative Projects (10)

Institute Marks : 5.00

Table No. 6.1.6.1: List of faculty members involved in student innovative projects.**(CAYm1) 2024-25**

S.No	Name of the Faculty	Name of the Event	Date of the Event(DD/MM/YYYY)	Place of Event	Website Link if any
1	Dr.Sharanbasappa shetkar	Karnataka state council for science and technology	9 AUG 2024	Bidar	www.kscst.org.in
2	Dr.Sagarkumar Buyya	Karnataka state council for science and technology	9 AUG 2024	Bidar	www.kscst.org.in

(CAYm2) 2023-24

S.No	Name of the Faculty	Name of the Event	Date of the Event(DD/MM/YYYY)	Place of Event	Website Link if any
1	Dr.Sharanbasappa shetkar	Karnataka state council for science and technology	11 AUG 2023	Bidar	www.kscst.org.in

(CAYm3) 2022-23

S.No	Name of the Faculty	Name of the Event	Date of the Event(DD/MM/YYYY)	Place of Event	Website Link if any
1	Dr.Sharanbasappa shetkar	Karnataka state council for science and technology	12 AUG 2022	Bidar	www.kscst.org.in

6.1.6 Faculty Internship/Training/Collaboration with Industry (10)

Institute Marks : 4.00

Table No. 6.1.7.1: Faculty internship/training/collaboration details.

S.No	Name of the Faculty	Name of the Internship/ Training/ Collaboration	Name of the Company & Place	Duration	Outcomes of Internship/ Training/ Collaboration
1	Prof. Rakesh T	8051 Microcontroller - Embedded C and Assembly Language	Udemy	8.5 Hrs	Hands on experience & Real Time use of 8051 Microcontroller
2	Prof. Rakesh T	Introduction to IOT	CISCO Networking Academy	10 Hrs	Impact of IOT on Businesses and Governmemnt
3	Prof. Rakesh T	App Building Onramp	MathWorks	10 Hrs	App Building using MATLAB
4	Prof. Rakesh T	CPA: Programming Essentials in C++	CISCO Networking Academy	10 Hrs	C++ Programming
5	Prof. Rakesh T	JAVA	Pearson	3 Months	Certification as IT Specialist
6	Prof. Rakesh T	JAVA Script	Pearson	3 Months	Certification as IT Specialist

6.2 Research and Development Activities (60)

Table No. 6.2.1.1: Faculty publication details.

S.No.	Item	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)
1	No. of peer reviewed journal papers published	6	9	4
2	No. of peer reviewed conference papers published	2	1	3
3	No. of books/book chapters published	0	0	1

6.2.2 Development Activities (10)

Institute Marks : 3.00

CAYM2(2023-2024)				
Patents grand/published				
Sl.no	Author	Title	Application No.	year of grant/published
1	Dr.Sharanbasa ppa shetkar	AI-Based online admission screening system	IN202441001 839	09/02/2024

6.2.3 Sponsored Research Project (15)

Institute Marks : 15.00

2024-25 (CAYm1)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr. Vinita Patil	Dr. Sharanbasappa Shetkar	Computer Science & Engineering	AI-Driven Super-Resolution Enhancement for Medical Imaging: Improving Diagnostic Accuracy and Patient Outcomes	K-FIST L2 (VGST)	2 Years	30.00
						Amount received (Rs.):30.00

2023-24 (CAYm2)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25

2022-23 (CAYm3)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25

Total Amount (Lacs) Received for the Past 3 Years:

Note*:

- Only sponsored research projects will be considered. Infrastructure-based projects will not be considered here.

2024-25 (CAYm1)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25

2023-24 (CAYm2)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25

2022-23 (CAYm3)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25

Total amount (Lacs) received for the past 3 years:

Note*:

- Only consultancy projects will be considered. Infrastructure-based projects will not be considered here.

6.2.5 Institution Seed Money or Internal Research Grant to its Faculty for Research Work(5)

6.2.5 A Amount received (3)

Institute Marks :

2024-25 (CAYm1)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project

2023-24 (CAYm2)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project

2022-23 (CAYm3)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project

Total amount (Lacs) received for the past 3 years :

6.2.5 B Amount utilized (2)

Institute Marks :

7.1 Adequate and well equipped laboratories, and technical manpower (40)

Institute Marks : 45.00

Sr. No	Name of the Laboratory	Number of students per set up(Batch Size)	Name of the Important Equipment	Weekly utilization status(all the courses for which the lab is utilized)	Technical Manpower Support		
					Name of the Technical staff	Designation	Qualification
1	Fundamentals	4	CRO, Fixed Pc	6 Hrs	Abdul Ubaid	Instructor	ITI
2	Analod & Digite	4	CRO, Fixed Pc	6 Hrs	Abdul Ubaid	Instructor	ITI
3	C++ Basics Lal	2	Desktops	6 Hrs	Rajeshwari	Instructor	Diploma
4	Digital Systems	2	Desktops, Xilin	4 Hrs	Rajeshwari	Instructor	Diploma
5	Electronic Prin	2	Desktops	4 Hrs	Rajeshwari	Instructor	Diploma
6	Communicator	4	CRO, Fixed Pc	6 Hrs	Abdul Ubaid	Instructor	ITI
7	Data Structure:	2	Desktops	6 Hrs	Rajeshwari	Instructor	Diploms
8	Principles of Cr	2	Desktops	4 Hrs	Rajeshwari	Instructor	Diploma
9	Control System	2	Desktops	4 Hrs	Rajeshwari	Instructor	Diploma
10	Digital Commu	2	Desktops	6 Hrs	Rajeshwari	Instructor	Diploma
11	Digital Signal F	2	Desktops	4 Hrs	Rajeshwari	Instructor	Diploma
12	VLSI Design &	2	Desktops, CAL	6 Hrs	Rajeshwari	Instructor	Diploma
13	IoT Laboratory	2	Desktops, Ardu	6 Hrs	Rajeshwari	Instructor	Diploma
14	Embedded Sys	2	Desktops, ARM	4 Hrs	Rajeshwari	Instructor	Diploma
15	Microwave Enç	4	Klystron Power	4 Hrs	Abdul Ubaid	Instructor	ITI
16	Computer Netv	2	Desktops	4 Hrs	Rajeshwari	Instructor	Diploma
17	Langauge Labr	2	Desktops, IAN	1Hrs	Anil	Instructor	Diploma

7.2 Additional Facilities Created for Improving the Quality of Learning Experience in Laboratories (20)

Sr. No	Name of the Facility	Details	Purpose for creating facility	Utilization	Relevance to POs/PSOs
1	Intel Unnati (Data-Centric Labs in Emerging Technologies), Artificial Intelligence Lab	Industrial internet of thongs(IIoT), SP32,Raspberry Pi,	The primary reason is to bridge the gap between textbook theory and industrial reality.	Research & development for faculty and students to work on real world projects. Students earn industry recognized credentials from companies	PO1, PO2, PO3,PO4, PSO3
2	Smart boards & digital teaching aids	Interactive smart boards, projectors for live demonstrations	To improve engagement and make complex topics visually intuitive.	All lab sessions and seminars.	PO9, PO11
3	Industry-standard development boards	FPGA boards, Arduino, Raspberry Pi, ARM Cortex kits.	To provide exposure to latest industry tools and platforms.	Lab experiments, final-year projects.	PO3, PO5, PSO2
4	High-speed internet.	Dedicated lab Wi-Fi.	To enable real-time data collection.	Projects, Browsing, Online Sessions,Webinars	PO5, PO11, PSO2
5	E-learning resource corner	Systems with NPTEL, Courses, IEEE Xplore access.	To encourage self-paced advanced learning and research.	Scheduled during semester.	PO4, PO8, PO11
6	Enhanced safety & ergonomics	Anti-static mats, ESD protection kits, ergonomic chairs and benches.	To ensure safety and comfort during long lab sessions.	All labs, especially involving sensitive electronics.	PO6
7	Mini project & prototyping zone	Dedicated area with soldering stations, breadboards, and tool kits.	To encourage innovation and hands-on prototyping beyond standard experiments.	Mini projects, competitions.	PO3, PO7, PSO3
8	Skill development workshops	Regular workshops on IoT, AI/ML, PCB design, MATLAB coding, VLSI, Arm cortex m3 etc.	To improve multidisciplinary skills and prepare for industry trends	Scheduled throughout the semester.	PO8, PO11, PSO3
9	mBlock Software for Robotics	Graphical programming environment based on Scratch 3.0; supports block-based and Python coding; compatible with Arduino, mBot, and other educational robots.	To provide an easy, beginner-friendly platform for learning robotics and programming concepts without complex syntax.	Used in robotics labs, workshops, project work, coding competitions, and IoT/AI projects.	PO1, PO2, PO3, PO5, PO9, PSO2, PSO3

7.3 Maintenance of laboratories and overall ambiance (10)

Maintenance of Laboratories and Overall Ambiance (10)

The objective of laboratory maintenance is to ensure the **safe, efficient, and continuous functioning** of all equipment and facilities, thereby supporting **effective teaching, learning, and research activities** in the Electronics and Communication Engineering department.

Laboratory Maintenance:

1. Informative notice boards are maintained in all laboratories, displaying timetables, safety measures, and do's and don'ts to ensure student awareness.
2. Well-trained technical staff are available for the maintenance of equipment, components, computers, and software systems.
3. Minor repairs and routine maintenance activities are carried out internally by the technical staff as per requirements.
4. Adequate LAN and Wi-Fi connectivity (100 Mbps) is provided to both students and faculty to support academic and research activities.
5. UPS systems, inverters, and batteries undergo periodic (quarterly) maintenance to ensure uninterrupted laboratory operations.
6. Obsolete and outdated equipment are identified and disposed of periodically.
7. Continuous efforts are made toward the modernization and upgradation of laboratory infrastructure.
8. Student login and logout registers are maintained in all laboratories to monitor utilization.
9. A stock register is maintained to track the procurement and availability of laboratory equipment.
10. Each laboratory is assigned a faculty in-charge along with technical staff, who are responsible for its overall functioning and maintenance.
11. First aid kits are available in all laboratories.
12. Fire extinguishers are installed on all floors for emergency preparedness.

Overall Ambiance:

1. All laboratories and classrooms are provided with adequate ventilation and proper lighting, ensuring a comfortable and safe learning environment.
2. Laboratories are well furnished and equipped with essential facilities such as UPS systems, whiteboards, computers, and internet connectivity.
3. Lab manuals are prepared for all courses and made available to students in both soft and hard copy formats for effective learning.
4. Laboratory assessments are conducted based on well-defined rubrics for each experiment to ensure transparency and consistency in evaluation.
5. The Vision, Mission, and Program Outcomes (POs) are prominently displayed in all laboratories to create awareness and alignment with institutional goals.
6. Dedicated housekeeping staff ensure daily cleaning and maintenance of laboratories through regular floor cleaning and mopping.
7. Cleanliness and hygiene are maintained to support a safe and conducive working environment.

ESD LAB Do's & Don't'S:

Do's	Don't'S
Read the lab manual and experiment instructions before starting.	Do not power up circuits without verifying connections.
Sign the lab register and follow lab timings.	Do not handle live circuits with wet hands.
Wear Uniform and ID cards; avoid jewelry that may conduct electricity.	Do not wear loose clothing or metallic accessories that may cause short circuits.
Keep mobile phones switched off and bags in designated racks.	Do not eat, drink, or bring unauthorized items into the lab.
Maintain cleanliness—no food or drinks inside the lab.	Do not misuse lab equipment or engage in misconduct.
Double-check circuit connections before applying power.	Do not ignore error messages or warnings in your development environment.

Use proper grounding and shielding to avoid noise in embedded circuits.

Document your code, circuit diagrams, and observations thoroughly.

Test incrementally—verify small modules before integrating into larger systems.

Follow coding standards (clear naming, comments, modular design).

Communicate with your lab partner and instructor if instructions are unclear.

IoT LAB Do's & Dont's:

Do's (Things You Should Do)

Follow lab instructions carefully before starting the experiment.

Check all components (Arduino/NodeMCU/Raspberry Pi, sensors, wires) before connecting.

Use proper power supply as per the device requirement (3.3V / 5V).

Connect circuits only when power is OFF to avoid short circuits.

Verify pin connections using circuit diagram before powering ON.

Use breadboard properly and ensure firm connections.

Handle sensors carefully (DHT11, IR, ultrasonic, gas sensor etc.).

Write and save code properly with correct file names.

Upload program only after selecting correct board and COM port.

Use proper Wi-Fi credentials while working with NodeMCU/ESP32.

Test internet connection before using cloud platforms (ThingSpeak, Blynk, Firebase, MQTT).

Maintain proper IP address settings while using IoT communication.

Use secure passwords for Wi-Fi and cloud applications.

Do not hard-code values unnecessarily—use constants or configuration files.

Do not skip debugging or rush to final implementation without testing.

Do not rely solely on your partner—ensure you understand the experiment yourself.

Do not leave your workstation messy, always reset equipment after use.

Do not attempt experiments without instructor approval.

Dont's (Things You Should Not Do)

Do not connect components randomly without circuit reference.

Do not touch live circuits while the power is ON.

Do not short-circuit power lines (VCC and GND).

Do not use damaged wires or loose connections.

Do not force sensors into incorrect pins or apply excess pressure.

Do not connect 5V supply to 3.3V modules like ESP8266 directly.

Do not upload code without selecting correct board/port.

Do not remove USB cable during program uploading.

Do not use wrong libraries, it may cause compilation errors.

Do not modify hardware connections while program is running.

Do not share Wi-Fi passwords publicly in code or project files.

Do not keep food or liquids near IoT kits and systems.

Do not use mobile hotspot repeatedly if lab Wi-Fi is available (unstable connection).

Use proper libraries and install required packages before compiling.

Do not ignore error messages shown in Arduino IDE or console.

Check serial monitor output for debugging.

Do not misuse lab internet for non-academic activities.

Document observations and results in the lab record neatly.

Do not delete project files without backup.

Disconnect hardware safely after completing the experiment.

Do not leave devices powered ON unnecessarily after experiment.

Report faulty components immediately to lab instructor.

Do not mishandle Raspberry Pi boards (SD card removal while running).

Keep the workspace clean and organized.

Do not install unauthorized software on lab computers.

Work in a team with proper coordination and equal participation.

Do not leave the lab without switching OFF power supply and cleaning area.

Safety Rules for Lab:

Always ensure proper grounding for power circuits.

Keep IoT devices away from water and heat sources.

Use ESD precautions while handling sensitive ICs/modules.

Do not overload sockets or adapters.

C++ Basics LAB Do's and Dont'S:

Do's	Dont's
<ul style="list-style-type: none">• Enter the lab quietly and maintain discipline.	<ul style="list-style-type: none">• Do not eat or drink inside the computer lab.
<ul style="list-style-type: none">• Wear ID card and follow lab rules.	<ul style="list-style-type: none">• Do not play games or browse unwanted websites.
<ul style="list-style-type: none">• Switch ON/OFF the computer properly.	<ul style="list-style-type: none">• Do not change system settings or desktop configurations.
<ul style="list-style-type: none">• Handle keyboard, mouse, CPU, and monitor carefully.	<ul style="list-style-type: none">• Do not install any software without permission.
<ul style="list-style-type: none">• Keep your workspace clean and neat.	<ul style="list-style-type: none">• Do not delete or modify system files.
<ul style="list-style-type: none">• Save your work frequently to avoid data loss.	<ul style="list-style-type: none">• Do not remove or unplug cables, mouse, keyboard, or any components.
<ul style="list-style-type: none">• Use computer systems only for academic purposes.	<ul style="list-style-type: none">• Do not use mobile phones inside the lab unnecessarily.

<ul style="list-style-type: none"> • Scan pen drives for viruses before use. 	<ul style="list-style-type: none"> • Do not damage or write on lab tables or systems.
<ul style="list-style-type: none"> • Report any hardware/software problem to the lab instructor immediately. 	<ul style="list-style-type: none"> • Do not connect unauthorized devices to computers.
<ul style="list-style-type: none"> • Shut down the system properly after completing work. 	<ul style="list-style-type: none"> • Do not waste paper and printing resources.
<ul style="list-style-type: none"> • Arrange chairs properly before leaving the lab. 	<ul style="list-style-type: none"> • Do not create unnecessary noise or disturb others.
<ul style="list-style-type: none"> • Follow instructor's instructions strictly. 	<ul style="list-style-type: none"> • Do not leave the computer ON after the lab session.
<ul style="list-style-type: none"> • Maintain silence and focus on lab activities. 	

Final Lab Rule:

Always follow lab instructor's guidance and maintain proper discipline.

Do's and Dont'S for Analog and Digital Systems Design Lab:

Do's	Dont's
<ul style="list-style-type: none"> • Wear Uniform/ID card and maintain discipline. 	<ul style="list-style-type: none"> • Do not switch ON supply without instructor verification.
<ul style="list-style-type: none"> • Read the experiment and circuit diagram before coming to lab. 	<ul style="list-style-type: none"> • Do not touch live circuits with bare hands.
<ul style="list-style-type: none"> • Check components and IC numbers properly before using. 	<ul style="list-style-type: none"> • Do not exceed IC voltage ratings (may burn IC).
<ul style="list-style-type: none"> • Use proper grounding to avoid noise and damage. 	<ul style="list-style-type: none"> • Do not reverse power supply polarity.
<ul style="list-style-type: none"> • Connect power supply only after verifying connections. 	<ul style="list-style-type: none"> • Do not connect output to ground directly (short circuit).
<ul style="list-style-type: none"> • Keep power supply at minimum voltage initially and then increase slowly. 	<ul style="list-style-type: none"> • Do not remove ICs when power is ON.
<ul style="list-style-type: none"> • Use correct value resistors, capacitors, and ICs as per circuit. 	<ul style="list-style-type: none"> • Do not interchange ICs randomly without checking pin configuration.
<ul style="list-style-type: none"> • Use multimeter to check continuity before powering the circuit. 	<ul style="list-style-type: none"> • Do not use damaged wires, loose probes, or broken breadboards.


<ul style="list-style-type: none"> Handle ICs carefully (avoid bending pins). 	<ul style="list-style-type: none"> Do not keep CRO probes in wrong mode ($\times 1$ / $\times 10$ mismatch).
<ul style="list-style-type: none"> Use IC sockets instead of directly inserting ICs into breadboard. 	<ul style="list-style-type: none"> Do not overload function generator amplitude.
<ul style="list-style-type: none"> Follow datasheet pin configuration before connections. 	<ul style="list-style-type: none"> Do not connect CRO ground clip to wrong point (can damage CRO/circuit).
<ul style="list-style-type: none"> Maintain proper wiring and neat connections to avoid short circuits. 	<ul style="list-style-type: none"> Do not place metal objects near powered circuits.
<ul style="list-style-type: none"> Use CRO/DSO properly with correct probe settings. 	<ul style="list-style-type: none"> Do not waste lab time in unnecessary discussions.
<ul style="list-style-type: none"> Take readings carefully and record observations immediately. 	<ul style="list-style-type: none"> Do not leave circuit ON unattended.
<ul style="list-style-type: none"> Switch OFF power supply after completing the experiment. 	<ul style="list-style-type: none"> Do not mishandle lab instruments like CRO, DSO, power supply, trainer kits.
<ul style="list-style-type: none"> Return components to their correct place after use. 	
<ul style="list-style-type: none"> Report faults/damaged equipment to the lab instructor immediately. 	



Final Lab Rule:


Always verify the circuit with instructor before switching ON power supply.

Attendance of Laboratory:

Sl.No	Name of Lab	Area (Sq.mt)	Supporting Photograph

1.	<p>Data Structure Lab Using C (BECL456)</p> <p>Principles of communication systems(BEC402)</p> <p>Digital Signal Processing (BEC502)</p> <p>Electronic Principles and Circuits (BEC303)</p> <p>Computer networks & protocols (BEC702)</p> <p>IoT Lab (BECL657C)</p>	70	
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2.	<p>C++ Basics Lab (BEC358C)</p> <p>VLSI Lab (BECL606)</p> <p>Digital System Design using Verilog (BEC302)</p> <p>Digital Communication Lab (BECL504)</p> <p>Embedded System Design (BEC601)</p> <p>Control Systems (BEC403)</p>	70	
3.	<p>Microwave Engineering and Antenna Theory (BEC701)</p>	70	

4.	Communication Lab (BECL404) Analog & Digital System Design Lab (BECL305) Fundamental of Electronics (1BECCEL107)	70	
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7.4 Safety measures in laboratories (10)

Sr. No	Laboratory Name	Safety Measures
1	<div data-bbox="73 140 607 256" style="border: 1px solid gray; padding: 2px;"> C++ Basics Lab (BEC358C) Data Structure Lab Using C (BECL456) </div>	<p>1. Students must ensure that all systems and power supplies are properly shut down after use to prevent data loss and hardware damage. 2. Before leaving the laboratory, students should place the mouse, keyboard, and other peripherals in an organized manner to maintain discipline and avoid damage. 3. While establishing any communication link, only authorized network channels and configurations must be used to ensure security and compliance. 4. Unauthorized software installation is strictly prohibited. Students must not access restricted or prohibited websites. 5. All computers must have updated antivirus software installed. Regular updates of the operating system and web browsers must be ensured to protect against vulnerabilities. 6. Usage of pen drives and other external storage devices should be avoided or strictly regulated to prevent malware and data breaches. 7. Proper cable routing must be maintained at all times to avoid tripping hazards, accidental disconnections, and equipment damage. 8. Students must follow laboratory rules and maintain a clean, organized, and safe working environment.</p>
2	<div data-bbox="73 368 607 485" style="border: 1px solid gray; padding: 2px;"> IoT Lab (BECL657C) </div>	<p>1. All electronic components such as sensors, modules, and adapters must be handled carefully to prevent physical damage. 2. Sensors and devices should be connected and disconnected carefully to avoid damage to both the component and the interfacing system. 3. Always disconnect the power supply before modifying circuits or making connections to prevent short circuits and electrical shocks. 4. Voltage and current settings of power supplies must be verified before connecting to any device to avoid overloading or damage. 5. Any malfunction, electrical sparks, or abnormal behavior of equipment must be immediately reported to the lab staff or faculty. 6. Students must refer to manufacturer datasheets and user manuals for proper usage, safety limits, and operating conditions of each IoT component. 7. All IoT devices must be connected only to secure and authorized networks to prevent unauthorized access, data breaches, or hacking.</p>
3	<div data-bbox="73 569 607 686" style="border: 1px solid gray; padding: 2px;"> Digital Signal Processing (BEC502) </div>	<p>1. Ensure that all systems and DSP hardware kits are powered OFF before making any connections or modifications. 2. Verify input voltage levels before connecting DSP kits (such as processors, FPGA boards, or interfacing modules) to avoid damage. 3. Ensure all equipment is properly grounded to prevent electrical shocks and noise interference. 4. Handle DSP boards, processors, and interfacing modules carefully to avoid damage to sensitive components. 5. Do not apply force on connectors, ports, or ICs while connecting peripherals. 6. Follow ESD precautions while handling DSP kits. Avoid touching pins directly and use grounding techniques where possible. 7. Use authorized tools such as MATLAB, Simulink, or DSP IDEs installed in the lab systems. 8. Verify algorithms and code before execution to prevent unexpected hardware behavior.</p>
4	<div data-bbox="73 825 607 941" style="border: 1px solid gray; padding: 2px;"> Embedded System Design (BEC601) </div>	<p>1. Always disconnect the power supply or USB cable before modifying circuits to avoid electrical shock and hardware damage. 2. ARM development boards must be handled with care to avoid damage to delicate components such as pins, connectors, and ICs. 3. Ensure that the development kit operates within the recommended voltage range (typically 3.3V or 5V) to prevent overloading or damage to components. 4. Do not apply excessive force or pressure on the board to prevent mechanical damage. 5. Arrange cables properly to prevent tripping hazards and accidental disconnections. Power and data cables should be kept separate to avoid interference or short circuits. 6. Verify and validate code before programming the ARM kit to prevent malfunction such as overheating or improper operation of hardware. 7. Use only authorized development environments and download firmware/software updates from official or verified sources to prevent malware and security vulnerabilities. 8. Avoid exposing ARM kits to extreme temperatures or humidity. Ensure proper environmental conditions within the laboratory for reliable operation. 9. Ensure all users are trained in lab safety protocols and proper handling of ARM development kits before use. 10. Maintain proper documentation of setup configurations, power requirements, and modifications for safe operation and troubleshooting.</p>

5	<p>Microwave Engineering and Antenna Theory (BEC701)</p>	<p>1. Follow faculty instructions strictly during operation. 2. Avoid direct exposure to microwave radiation sources. 3. Maintain safe distance from energized equipment. 4. Ensure all connections are secure before powering the system. 5. Double-check that antenna mounts and supports are stable and firmly fastened. 6. Always use appropriate tools while assembling or adjusting antenna components to prevent damage and injury. 7. Ensure adequate ventilation when working with high-power antenna systems to avoid overheating of equipment. 8. Avoid over-tightening bolts or fasteners, as it may damage components or introduce mechanical stress. 9. Ensure that the cooling fan is switched ON before operating the microwave test bench. Verify proper air circulation towards the Klystron tube to prevent overheating. 10. Set the Beam Current knob to minimum (anticlockwise direction) and the Repeller Voltage to maximum (clockwise direction). Confirm that the HT (High Tension) switch is in the OFF position before starting. 11. Switch ON the mains power supply of the Klystron unit. Set the meter selector to "C", modulation selector to "AM", and adjust the back-panel toggle switch to the 400V range. 12. Turn ON the HT switch to supply high voltage to the Klystron tube. Observe the beam current rise gradually and stabilize. Set the beam current to the standard value of approximately 18 mA (depending on the setup). 13. Connect the BNC-BNC cable from the detector mount to the CRO. Adjust the AM amplitude and repeller voltage (not below -200V) until maximum meter reading and proper square wave display are obtained. 14. Disconnect the CRO connection and connect the BNC cable to the VSWR meter without altering previous Klystron settings. 15. Connect the VSWR meter AM output to the CRO. Adjust the AM frequency knob to obtain a low-frequency sine wave (~1 kHz). Ensure maximum dB power reading. 16. Confirm that all parameters are correctly set before proceeding with experiments. Follow all operational steps strictly.</p>
6	<p>Communication Lab (BECL404)</p>	<p>1. While making circuit connections, students must ensure that all power supplies are switched OFF or reduced to zero to prevent accidental shocks or damage. 2. All circuit connections must be thoroughly checked before powering the circuit to avoid short circuits, ground looping, or equipment damage. 3. Ensure that a proper load is connected at the output terminals before switching ON the power supply. 4. Students are permitted to switch ON the power supply only after verification and approval from the concerned faculty or lab staff. 5. No loose wires, metal pieces, or conductive materials should be present on the working table to avoid short circuits and sparking. 6. High-voltage components and connections must be kept properly insulated and positioned away from accidental contact. Avoid using unnecessarily long wires that may interfere with other components or equipment. 7. Students must avoid wearing metal accessories such as bracelets, rings, watches, or necklaces while working, as they can conduct electricity and cause serious injuries. 8. While working with energized circuits (operating switches, adjusting controls, or using test equipment), students should use only one hand and keep the other hand away from conductive surfaces to minimize the risk of electric shock. 9. Fire extinguishers must be readily available in the laboratory, and students should be aware of their usage in case of fire hazards.</p>
7	<p>VLSI Lab (BECL606)</p>	<p>1. Use authorized VLSI design tools (such as CAD tools, HDL simulators, synthesis tools) installed in the lab. 2. Verify Verilog/VHDL code before synthesis and implementation to avoid hardware malfunction. 3. Follow proper procedures while programming .</p>

7.5 Project laboratory/research laboratory /centre of excellence (20)

The Project Laboratory is established to support **Project-Based Learning (PBL)** as prescribed in the curriculum. The primary objective is to enable students to gain **hands-on experience with hardware and software tools** relevant to Electronics and Communication Engineering.

- The laboratory facilitates practical exposure to **circuit design, implementation, and fault analysis**, complementing the theoretical knowledge acquired during academic courses.
- It enhances students' ability to solve **real-time engineering problems and design challenges**.
- The laboratory also serves as a platform for **discussion, innovation, and implementation of ideas** related to mini-projects and final year project

The Project Laboratory is exclusively dedicated to project work and is equipped with the following facilities:

1. A separate and well-equipped lab for carrying out project activities.
2. High-speed computers installed with necessary software tools for design, simulation, and implementation.
3. Students are allowed to utilize the laboratory during university working hours under the supervision of faculty and technical staff.
4. Dedicated project slots are allocated in the academic timetable with proper guidance from faculty mentors.
5. Students are encouraged to showcase their work through platforms such as **Project Expo**.
6. Guidance and support are provided for participation in **hackathons and technical competitions**.

Utilization of Project Laboratory:

The Project Laboratory is effectively utilized to support student learning and project development:

1. The laboratory is accessible to students **during regular working hours** for project-related activities.
2. With prior permission from the **Head of the Department (HOD)**, students may access the laboratory during **non-working days**.
3. The laboratory is also made available **beyond regular college hours** to facilitate project completion.
4. Students utilize the laboratory for:
 1. **Mini Projects**
 2. **Final Year Projects** etc

Table No. 7.5.1: List of project laboratory/research laboratory /Centre of Excellence.

Sl.NO	Purpose
-------	---------

1

STEM Lab in
Collaboration
with Kalinga
University.

STEM laboratories boost science literacy. It looks at how this experiential learning reconciles the disparity that always exists between abstract theoretical views and practical understanding, hence enhancing effective appreciation of complex scientific principles. By conducting experiments in a laboratory, students receive the most crucial aspects to become successful in their academic and working career in STEM.

A programmable educational robot designed for teaching coding, robotics, and electronics. It is widely used in classrooms and STEM programs to help students learn programming concepts through hands-on activities.

Purpose:

To help students learn programming concepts using **block-based coding**.

Builds understanding of Logic building, Control structures (loops, conditions), Event-based programming.

Enables students to control: LEDs, Motors, Sensors using simple drag-and-drop programming.



mBotX



a. Codey
Rocky



Code

I/IOT Lab in
Collaboration
with Kalinga
University.

The **Industrial Internet of Things (IIoT) Laboratory** is designed to provide students with practical exposure to **smart industrial systems**, where machines, sensors, and devices are interconnected through networks for **automation, monitoring, and data-driven decision making**. It bridges the gap between **academic learning and Industry applications** by enabling hands-on experience in real-time industrial scenarios.

Purpose:

- Students will develop practical skills in **embedded systems, sensors, and industrial communication**.
- Enable students to work with **real-time data acquisition and control systems**.

- Students will be able to design and implement **IIoT-based industrial solutions** & analyze real-time data for decision making

Facilities:

- IIoT development kits (Arduino, Raspberry Pi, ARM)
- Industrial sensors (temperature etc.)
- Actuators (motors, relays)
- High-speed internet and secured LAN/Wi-Fi



3

Internet of Things (IoT) Laboratory

The **Internet of Things (IoT) Laboratory** is established to provide students with hands-on experience in connecting **physical devices (things)** such as sensors and actuators to the internet for **data collection, monitoring, and control**. It enables students to understand how real-world systems are automated and managed using **embedded systems, communication networks, and cloud technologies**.

Purpose:

- To develop skills in **interfacing sensors and actuators** with microcontrollers.
- To understand real-time **data acquisition and processing**.
- Encourages development of projects such as Smart irrigation systems , Home automation, Health monitoring systems.
- Encourages the students to design and implement **IoT-based systems**

- Encourages the students to develop innovative **industry-oriented projects**.

Facilities:

- IoT development boards (Arduino, Raspberry Pi, NodeMCU)
- Sensors (temperature, humidity, gas, etc.)
- Actuators (motors, relays, LEDs)
- Communication modules (Wi-Fi, Bluetooth)



IoT Kit

4

Artificial
Intelligence
Laboratory

The **Artificial Intelligence (AI) Laboratory** is established to provide students with practical exposure to **intelligent systems and data-driven technologies**. The lab enables students to design systems that can **learn, reason, and make decisions** using algorithms and computational models.

Purpose:

- To implement algorithms related to Machine Learning , Deep Learning.
- Develop skills in Data preprocessing, Model training and evaluation , Problem-solving using AI techniques
- Prepares students for careers in Data Science, AI Engineering, Automation and Analytics
- Encourages students to work on Real-time AI projects, Research-based problem solving, Intelligent system development

Facilities:

- High-performance computers with sufficient RAM
- Servers/workstations for model training
- Programming Languages: Python
- Data analysis toolsn Pandas , NumPy,Matplotlib



a.Server

8.1 Actions taken based on the results of evaluation of each of the COs, POs & PSOs (40)

Table 8.1(a): Results of Evaluation of the COs Attainment & Action Taken

COs	Target Level	Attainment Level	Observations
CO5	60%	53%	Target not achieved in subject Transform Calculus, Four Series and Numerical Techniques (21MAT31), following actions will be taken for improvement.
Action 1: Conduct remedial classes for slow learners.			
Action 2: Use ICT tools such as NPTEL videos,			
CO2 and CO3	60%	40.6%	Target not achieved in subject Basic Signal Processing/21EC33, following actions will be taken improvement
Action 1: Conduct remedial classes for slow learners.			
Action 2: Increase focus on numerical problem-solving sessions .			
CO1	60%	20%	Target not achieved in subject Complex Analysis, Probability and Statistical Methods/21EC41, following actions will be taken improvement
Action 1: Conduct extra doubt-clearing sessions .			
Action 2: Provide study materials, question banks, and previous year papers .			
CO1	60%	33.3%	Target not achieved in subject Communication Theory/21EC44, following actions will be taken improvement
Action 1: Conduct special assignments/tutorials for weak COs.			
Action 3: Arrange guest lectures for complex topics.			
CO3	60%	36.7%	Target not achieved in subject in subject Communication Theory/21EC44, following actions will be taken improvement
Action: Introduce active learning methods such as quizzes, group discussions			
CO5	60%	37.6%	Target not achieved in subject Communication Theory/21EC44, following actions will be taken improvement
Action : Conduct extra doubt-clearing sessions .			
CO5	60%	56.7%	Target not achieved in subject Microwave Theory and Antenna /21EC62, following actions will be taken improvement
Action: Usage of ICT tools such as NPTEL videos,etc			

CO4	60%	56.7%	Target not achieved in subject in subject VLSI Design and Testing 21EC63, following actions will be taken improvement
Action : Arrange guest lectures for complex topics			
CO5	60%	50%	Target not achieved in subject VLSI Design and Testing 21EC63, following actions will be taken improvement
Action :: Introduce active learning methods such as quizzes, group discussions			

8.1.2 Actions Taken Based on the Results of Evaluation of the POs/PSOs Attainment (20)

Institute Marks : 15.00

Table 8.1.2 (a): POs Attainment Levels and Actions for Improvement - (2023-24)

POs	Target Level	Attainment Level	Observations
PO1: Engineering Knowledge			
PO1	1.8	2.42	Target achieved It is observed that there is a need for giving more awareness on subjects like Basic Signal Processing as target is not achieved
Action 1:Strengthened fundamentals through bridge courses & remedial classes			
Action2: Used concept-based teaching (not rote learning)			
Action3: Increased problem-solving assignments and numerical practice.			
PO2: Problem Analysis			
PO2	1.8	2.39	Target Achieved. In subjects like mathematics, circuits and control target is not achieved. Following improvement methods are suggested.
Action:1 Encouraged analytical assignments instead of direct questions			
Action:2 Conducted technical quizzes and analytical assignments.			
PO3:Design/Development of Solutions			
PO3	1.8	2.43	Target Achieved. However attainment is low in subject like mathematics, Basic Signal processing, circuit and control .than Set target value following improvement methods are suggested.
Action1:Encouraged design-based assignments			
Action2 :Encouraging participation in innovation contests.			
PO4: Investigation of Complex Problems			
PO4	1.8	2.34	Target Achieved. However following improvement methods are adopted
Action1:Strengthened lab components with experimental analysis.			
Action2:Encouraged project work involving research elements			
PO5: Engineering Tool Usage			
PO5	1.8	2.41	Target Achieved. However following improvement methods are suggested.

Action1 :Used **software tools (MATLAB, Sci lab , etc.)**

Action2 :Industry expert sessions on **emerging tools and technologies.**

Action3:Conducted **hands-on training on modern tools** (MATLAB, Python, CAD tools, etc.).

PO6: The Engineer and The World

PO6	1.8	2.46	Target Achieved. However following improvement methods are suggested.
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Action1:Organized **seminars on environmental sustainability and societal impact.**

Action2: Activities on **energy conservation, waste management, and green campus initiatives.**

PO7: Ethics

PO7	1.8	2.52	Target Achieved. However following improvement methods are suggested.
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Action1: Organized **guest lectures on ethical practices in engineering.**

Action2:Promoted **inclusive and respectful behavior in classrooms.**

PO8: Individual and Team Work

PO8	1.8	2.47	Target Achieved. However following improvement methods are suggested.
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Action1:Assigning **group projects and collaborative lab work.**

Action2: students are encouraged to participate in organizing various events in department and college fest

PO9: Communication

PO9	1.8	2.5	Target Achieved. However following improvement methods are suggested.
-----	-----	-----	--

Action1: Conducted **technical seminars, presentations, and group discussions**

Action2:Language improvement programs for **effective communication.**

PO10: Project Management and Finance

PO10	1.8	2.37	Target not achieved. Following improvement methods are adopted.
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Action1:project exhibition and poster presentation are organized in group

Action2:Assigning **team leaders for project execution.**

PO11: Life-Long Learning

PO11	1.8	2.43	Target not achieved. Following improvement methods are adopted.
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Action1:Organize **workshops on emerging technologies**.

Action2 : Motivation for **higher studies and research activities**

Table 8.1.2 (b): PSOs Attainment Levels and Actions for Improvement - (2023-24)

PSOs	Target Level	Attainment Level	Observations
PSO1: Apply differential and integral calculus in mathematics, science and engineering principles specific to electronics and communication engineering.			
PSO1	1.8	2.22	Target achieved However following improvement methods are suggested.
Action 1: Conducted bridge courses and refresher sessions on Engineering Mathematics. Action2:Organized tutorial classes and problem-solving sessions to improve students analytical and conceptual understanding.			
PSO2: Apply the knowledge of electronics and communication engineering principles in VLSI, Signal Processing, Communication, Embedded Systems, Control Engineering, Software and Hardware programming			
PSO2	1.8	2.36	Target achieved .However following improvement methods are suggested.
Action1:Encouraged mini-projects and internships in core ECE domains. Action2: Organized guest lectures and industry expert sessions in emerging technologies. Action3:Introduced interdisciplinary projects involving software and hardware integration.			
PSO3: Conduct experiments, analyse and interpret data, use modern tools in the field of electronics and communication engineering. Demonstrate the leadership qualities and strive or the betterment of organization, environment and society.			
PSO3	1.8	2.6	Target achieved .However following improvement methods are suggested.
Action 1: Promoted participation in technical events and competitions . Action2:Organized team-based projects to develop leadership and collaboration skills.			

8.2 Academic Audit and actions taken thereof during the period of Assessment (15)

External Audit Committee conducts Audit for department of Electronics & Communication Engineering for enhancing quality and excellence of program.

Objectives:

1. Evaluate whether teaching–learning processes meet required academic standards.
2. Maintain consistency with guidelines of National Board of Accreditation (NBA)
3. Verify the **Course Outcome (CO)** and **Program Outcome (PO)** attainment levels.
4. Ensure proper mapping, calculation, and documentation.
5. Check effectiveness of Lesson plans ,Teaching methods ,Use of ICT tools
6. Ensure syllabus coverage and timely completion.
7. Assess qualifications, experience, and contributions.
8. Analyze: Academic results Placement records Student progression
9. Review mentoring, counseling, and support systems.
10. Ensure availability and adequacy of: Labs Classrooms Library Software/tools
11. Evaluate: Workshops, seminars, guest lectures Industry interaction
12. Check proper maintenance of records: Course files Lab manuals Attendance & assessment records
13. Ensure compliance with institutional and regulatory norms.
14. Detect deficiencies in academic processes.
15. Provide actionable recommendations.
16. Ensure implementation of corrective actions.
17. Encourage a **quality enhancement cycle** in the institution.

Process of External Audit:

1. **Form audit committee: Create an internal/external academic audit team.**
2. **Define objectives & criteria: Set goals and standards based on NBA guidelines.**
3. **Prepare audit plan: Decide schedule, scope, and activities.**
4. **Collect data & documents: course files, personal files, lab manuals, feedback, etc.**
5. **Departmental self-assessment: Each department evaluates its own performance.**
6. **Audit team review: Team visits departments for verification (classes, labs, records).**
7. **Stakeholder interaction: Collect inputs from students, faculty, HoD and alumni.**
8. **Evaluation & gap identification: Compare actual performance with NBA standards.**
9. **Prepare audit report: Document of weaknesses and suggestions.**
10. **Submit findings to the institution.**
11. **Implement improvements based on suggestions.**

ACADEMIC AUDIT FLOWCHART

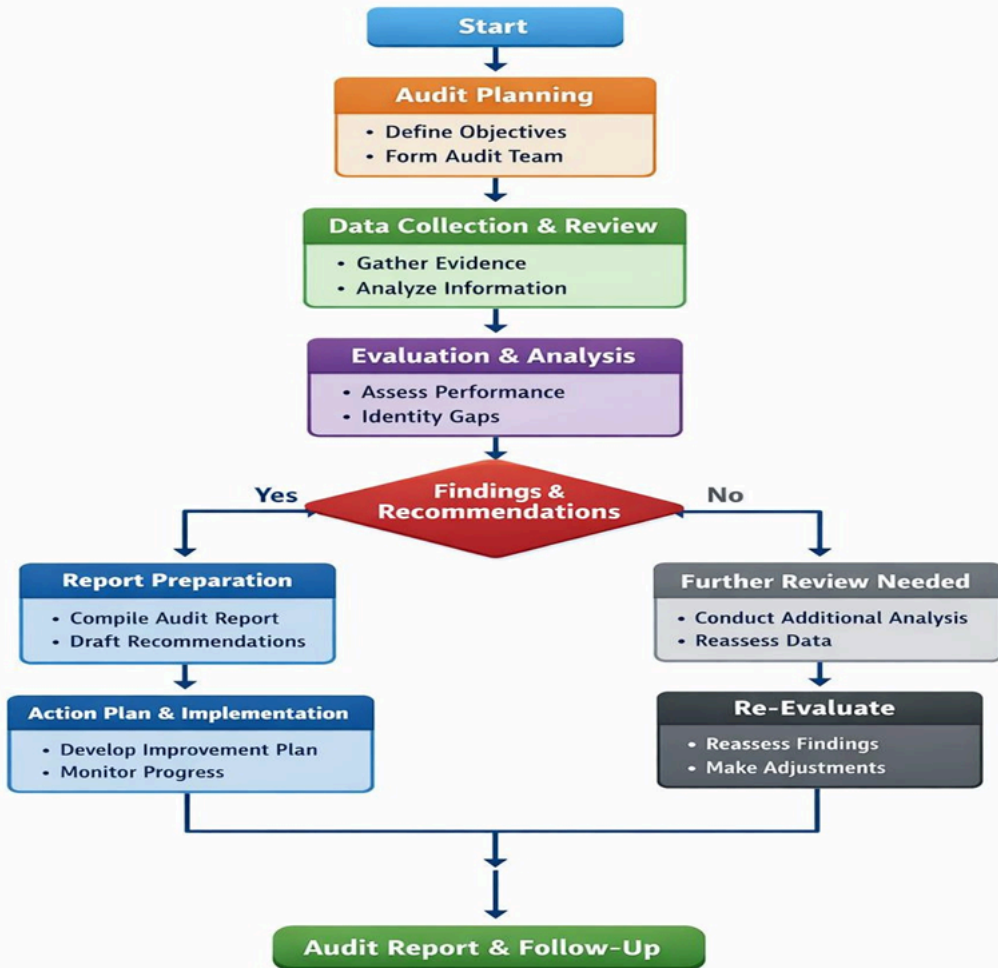


Figure 8.2(a): Academic Audit Flow

Academic Audit Components:

Table 8.2(a): Academic Audit Components

SL.N O.	AUDIT COMPONENT	CONTENT OF COMPONENT

1	Curriculum and Delivery	Course plan and coverage
		Teaching methods & Teaching aids
		Attendance records, classes engaged
		Feedback from students and steps taken
		Quality of (CIE)QP and Assignment
		Parents meeting – students' progress
		Continuous assessment of Internal for theory/Practical/Project/Seminar
		SEE Exam results analysis and Counseling
2	Attainment Level of Course Outcomes (COs), Program Outcomes (POs), Program Specific Outcomes (PSOs)	Course Outcomes (COs), Program Outcomes (POs), Program Specific Outcomes (PSOs) validation is done
3.	Faculty Profile	projects completed/ongoing
		Seminars/conferences attended
		Papers/articles/books published
		FDP/Training Program/Workshop attended
		Preparation of E-learning content
		Acted as resource persons
		Progress in higher studies
4	Student Profile	Students involvement in extra-curricular & Co curricular activities
		Study tour/industrial visits/exhibitions/Internship/Training
		Achievements and Academic performancee
5	Infrastructure	No. of classroom
		No. of laboratories
		No. of computers – for Faculties
		Computer-Students ratio
		No. of Computers – research scholars
		Quality of Equipment s
		Department Library

6.	Activities of the Department	Guest lecturers arranged
		Conference/Seminar/Workshop conducted
		Interaction with Industry/Research Centers/Educational Institutions
		Newsletters/Magazine
		Placement



Date: 16/8/2024

Lingaraj Appa Engineering College, Gornalli, Bidar
Department of Electronics & Communication Engineering

External Academic Audit Report

	Programme: B.E.	Academic Year: 2023-24
Name of Academic Audit Experts	1. Dr. Sharanbasappa Shetakar (HOD ,Dept. of ECE, LAEC Bidar)	
	2. Dr. Vivek Jaladi (HOD, Dept of H&S, LAEC Bidar)	
	3. Dr. Basanti Ghanti (Prof.FETW, SUK Kalburgi)	
Date: 16/8/2024		

Vinith
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 Lingraj Appa Engineering
 College, Gornalli, BIDAR-585403

Criterion	Items	Verification (Yes/ No)	Observation/Comment	Suggestions for improvement
	Course Plan and Coverage	Yes	Course plan prepared & Syllabus is covered	Satisfactory.
Curriculum and Delivery	Attendance records, classes engaged	Yes	Maintained properly	Satisfactory.
	Feedback from students and steps taken	Yes	Student feedback are taken	Satisfactory
	Quality of CIEQP /Assignments	Yes	The CIE questions Paper were set according to RBT level	Satisfactory
	Parents meeting-students' progress	Yes	Parents meeting were conducted	Satisfactory
	Continuous assessment of Internal for theory / Practical/Project/Seminar	Yes	CIE for Continuous assessment for Internal Theory & Practical/Project/Seminar	Satisfactory.
	SEE Exam results analysis and Counselling	Yes	Result Analysis of SEE courses is maintained	Satisfactory
Attainment Level of Course Outcomes(Cos) Program Outcomes (POs), Program Specific Outcomes (PSOs) validation is done	Yes	Sample Course Verified on Cos Po's & Psos & Mapping is Justified	Satisfactory.	
Faculty Profile	Projects completed/ ongoing	Yes/No		Suggested for to apply for sponsored projects such as KSCST, VGST etc
	Seminars /conferences attended	Yes	only few faculty are attended	Deptt- more faculty are advised to attend conferences
	Papers /articles/books published	Yes	Papers are published in diffrent Journals	Satisfactory.
	FDP /Training Program/ Workshop attended	Yes	FDP/Workshop attended by faculty	Satisfactory.


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	Preparation of E-learning content	No	No e-learning content	Encourage the staff to prepare e-learning content
	Acted as resource persons	Yes	Some faculty are acting as resource persons	Satisfactory
	Progress in higher studies	Yes	Some faculty are pursuing Ph.D	Encourage faculty for higher studies
Students Profile	Students involvement in extra-curricular & Co-curricular activities	Yes	Students participated in various activities organized in college	Encourage the students to participate in National level Events
	Study tour/industrial visits /exhibitions/ Internship /Training	No		Arrange the Educational/ Industrial trip
	Achievements and Academic performance	No		Encourage the students to complete the certificate course also in other forms
Infrastructure	No. of classrooms	Yes	Total 5	Satisfactory
	No. of laboratories	Yes	Total 4	Increase the No of laboratories apply for COE
	No. of computers-for Faculties	Yes	Two	Increase the number
	Computer-Students ratio	Yes	1:2	Satisfactory.
	Quality of Equipment	Yes	labs are maintained with necessary equipment	Satisfactory
Activities of the Department	Department Library	Yes	Adequate No of Books maintained	Satisfactory.
	Guest lecturers arranged	Yes	Guest lecturers arranged for students	Satisfactory.
	Conference/Seminar /Workshop conducted	Yes	Conducted	Increase the number of Seminars & Workshops
	Extension Activity	Yes	Many activities are done under NSS & SCR	Satisfactory


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	Interaction with Industry/ Research Centers /Educational Institutions	No	-	Organize Industrial Visits & STTP (Short Term Training Program)
	Newsletters/ Magazine	Yes		Satisfactory.
	Placement	Yes	60+	Conduct more Training Program to enhance students skills & improve placement opportunity.

Signature of the Academic Audit Experts: 1. Dr. Sharadbalappa Shetkar 2. Dr. Vivek. Jaladi 3.


HOD


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 College, Gomall, BIDAR-585403

Table 8.2(b): Compiled audit details of academic audit and their action taken are listed below by audit committee

ACADEMIC YEAR	COMMENTS BY AUDITOR	ACTION TAKEN
2024-2025	Apply for sponsored projects such as KSCST, VGST etc...	VGST sanctioned Research Project of 20 LACs KSCST sanctioned scholarship to projects some students group
	Encourage the faculties to take a role as resource person	Few faculties acted as resource person in other colleges
	Encourage faculties for higher studies	Few faculties are pursuing Ph.D. under VTU
	Encourage students to participate in national level events	Most of students were in various extracurricular activities organized by other colleges.
	Organize educational/ industrial visits	Industrial visit was organized by our department to ISRO Bangalore.
	Increase the no. of books in department Library	Books were added in in department Library
	Conduct training program to enhance student's skills & improve placement opportunities.	training programs were organized enhance students skills & improve placement opportunity
	Increase the no. of laboratories.	Established STEM ROBOTICS and IIOT laboratory.

8.3 Improvement in Faculty Qualification/Contribution (15)

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
No. of faculty members with Ph.D. degree	4.00	3.00	2.00
No. of publications in peer reviewed journals	6.00	9.00	4.00
No. of publications in conferences	2.00	1.00	3.00

8.4 Improvement in Academic Performance (10)

Institute Marks : 8.00

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
Academic Performance Index (API) of the First-Year Students in the Program (Refer to section 4.3)	4.99	5.95	6.52
Academic Performance Index (API) of the Second-Year Students in the Program (Refer to section 4.4)	6.52	7.21	6.90

9 STUDENT SUPPORT AND GOVERNANCE (120)

Total Marks 110.00

9.1 First Year Student-Faculty Ratio (FYSFR) (5)

Please provide First year faculty information considering load

Name of the faculty member	PAN No.	Qualification	From Engineering Courses	Date of Receiving Highest Degree	Area of Specialization	Designation	Date of joining	Currently Associated (Yes / No)	Nature Of Association (Regular / Contract)	Date Of leaving(In case Currently Associated is 'No')
Anilkumar D	EFYPK3661G	M.Sc	No	17/10/2014	Applied Mathematics	Assistant Professor	27/07/2015	Yes	Regular	
ASHARANI AL	BIAPA4754N	M.Sc	No	28/07/2011	MATHEMATICS	Assistant Professor	01/09/2011	Yes	Regular	
SRINIVAS	EUIPS0247D	M.Sc	No	24/08/2009	MATHEMATICS	Assistant Professor	01/11/2011	Yes	Regular	
Dr.PRIYANKA :	LWCPS4414H	MS and PhD	No	28/03/2018	MATERIAL SCIENCE	Associate Professor	13/05/2019	Yes	Regular	
ANITA	EZYPA4263E	M.Sc	No	19/07/2023	CHEMISTRY	Assistant Professor	01/08/2023	Yes	Regular	
ABHILASH	COBPA6033C	M.Sc	No	01/09/2022	PHYSICS	Assistant Professor	10/06/2024	Yes	Regular	
VEERENDRA.:	AOCKP9245B	M.Sc	No	22/07/1992	MATHEMATICS	Assistant Professor	20/09/2024	Yes	Regular	
SOMSHEKHAJ	MTVPS8933A	M.Sc	No	21/03/2025	MATHEMATICS	Assistant Professor	01/04/2025	Yes	Regular	
KAVERI	MTVPK7404G	M.Sc	No	12/12/2024	PHYSICS	Assistant Professor	17/03/2025	Yes	Regular	
RENUKA	CESPR6467N	M.Sc	No	10/10/2020	PHYSICS	Assistant Professor	24/03/2025	Yes	Regular	
NEELKANT	ENJPS0329Q	M.Sc	No	10/07/2012	MATHEMATICS	Assistant Professor	01/08/2025	Yes	Regular	
ARATI	GGTPA3985B	M.Sc	No	17/01/2025	CHEMISTRY	Assistant Professor	30/09/2025	Yes	Regular	
KALAMMA	KZRPK1543J	M.Sc	No	10/12/2025	CHEMISTRY	Assistant Professor	01/01/2026	Yes	Regular	
SHWETA	GWBPS3834M	MA	No	28/09/2013	KANNADA	Assistant Professor	01/09/2025	Yes	Regular	
Dr.ANITA	CQZPA0657C	M.A and Ph.D	No	09/07/2023	ENGLISH	Assistant Professor	15/11/2025	Yes	Regular	
BASWARAJ.C	AZYPC0560G	M.Tech	Yes	18/08/2018	COMPUTER SCIENCE	Assistant Professor	29/09/2025	Yes	Regular	
Dr.SHILPA HAJ	ADFPH5063G	M.Tech and Ph.D.	Yes	08/01/2025	IMAGE PROCESSING	Associate Professor	03/10/2025	Yes	Regular	
Dr.VIJAYANAN	BGZPK5356D	M.Tech and Ph.D.	Yes	06/11/2024	COMPOSITE MATERIAL	Associate Professor	01/08/2012	Yes	Regular	
Dr.VIVEK JAL/	ALFPJ3763R	M.Tech and Ph.D.	Yes	20/06/2022	IMAGE PROCESSING	Professor	02/09/2011	Yes	Regular	
JAGADISH D	ASEPD9059Q	M.Tech	Yes	18/04/2011	DESIGN ENGINEERING	Assistant Professor	29/09/2025	Yes	Regular	

PREETI	CJGPK6936G	M.Tech	Yes	15/07/2011	PRODUCTION ENGINEERING	Assistant Professor	01/08/2011	Yes	Regular	
RAJKUMAR P	BRRPR3741N	M.Tech	Yes	22/12/2013	ENVIRONMENTAL ENGINEERING	Assistant Professor	01/02/2014	Yes	Regular	
SANDEEP MA	AXWPM4900C	M.Tech	Yes	14/06/2013	MACHINE DESIGN	Assistant Professor	01/08/2013	Yes	Regular	
Dr.SANGAPPA	DANPS0721J	M.Tech and Ph.D.	Yes	05/10/2023	ELECTRICAL VEHICLE	Associate Professor	01/08/2014	Yes	Regular	
SUDHIR A	FBPSP8334E	M.Tech	Yes	14/12/2017	THERMAL ENGINEERING	Assistant Professor	01/08/2018	Yes	Regular	
SUDHEER J	DPDPS2070P	M.Tech	Yes	05/05/2016	CONSTRUCTION TECHNOLOGY	Assistant Professor	25/11/2023	Yes	Regular	
KIRANKUMAR	BHDPK5272K	M.Tech	Yes	09/05/2015	GEOTECHNICAL ENGINEERING	Assistant Professor	01/06/2015	Yes	Regular	
GURURAJ NA	ALQPN8544D	M.Tech	Yes	10/07/2014	CSE	Assistant Professor	01/08/2014	No	Regular	30/09/2025
VEERESH BIR	AIFPV2261F	M.Tech	Yes	08/07/2011	CSE	Assistant Professor	01/08/2012	No	Regular	30/09/2025
UPASANA PAT	BJOPG0668Q	M.Tech	Yes	05/04/2013	CSE	Assistant Professor	01/08/2013	No	Regular	29/09/2024
PRAGATI	DIYPP0459K	M.Sc	No	31/12/2020	PHYSICS	Assistant Professor	01/03/2022	No	Regular	30/09/2022
AKASH	ALFPJ3763R	M.Sc	No	26/04/2023	MATHEMATICS	Assistant Professor	01/08/2023	No	Regular	30/04/2024
HARATHI	AWFEH9198D	M.Sc	No	31/08/2019	PHYSICS	Assistant Professor	01/08/2023	No	Regular	15/06/2024
REVANSIDDAI	BOTPR6168A	M.Sc	No	04/07/2018	PHYSICS	Assistant Professor	01/08/2018	No	Regular	20/02/2025
ESTHER RANI	BGLPR8283C	MA	No	12/09/2011	ENGLISH	Assistant Professor	01/12/2021	No	Regular	31/12/2024
VAJRAMANI	AYGPV6221Q	MA	No	19/04/2021	ENGLISH	Assistant Professor	01/01/2024	No	Regular	30/01/2025
MALLAYYA M	CYQPM1895M	MA	No	12/07/1994	KANNADA	Assistant Professor	01/08/2022	No	Regular	30/07/2025
Dr. Vinita Patil	BNNPP1154M	M.Tech and Ph.D.	Yes	22/10/2020	IMAGE PROCESSING	Professor	01/02/2021	Yes	Regular	
Annapuma	DSVPA8736D	M.Sc	No	24/07/2018	General chemistry	Assistant Professor	09/10/2021	No	Regular	14/07/2022

Year	Sanctioned intake of all UG programs (S4)	No. of required faculty (RF4= S4/20)	No. of faculty members in Basic Science Courses & Humanities and Social Sciences including Management courses (NS1)	No. of faculty members in Engineering Science Courses (NS2)	Percentage= No. of faculty members ((NS1*0.8) + (NS2*0.2))/(No. of required faculty (RF4)); Percentage= ((NS1*0.8) +(NS2*0.2))/RF
2023-24(CAYm2)	288	14	10	12	74
2024-25(CAYm1)	288	14	7	12	57
2025-26(CAY)	360	18	11	10	60
Average Percentage					63.81

9.2 Mentoring system (5)

9.2. Mentoring system to help at individual level

The mentoring/counselling system is designed to provide individual guidance and support to students, enhancing their academic, personal, and professional growth. This system fosters a strong mentor-mentee relationship, ensuring regular interactions to address academic challenges, career aspirations, and personal development. If there is any issue which cannot be handled by the mentor then the issue is forwarded to the counsellor

Student mentorship has the following aims:

- To provide academic support and guidance for improved learning outcomes.
- To assist the students in career planning and professional development.
- To identify and address personal and psychological challenges.
- To identify and understand the status of slow learners and encourage advanced learners.
- To enhance student engagement and holistic development through regular mentoring sessions.

Student Support and Mentoring/ Counselling System at LAEC:

Lingaraj Appa Engineering College has a structured mentoring and counselling system aimed at fostering holistic student development. Faculty members act as Student Mentors and maintain **Mentoring Diaries** to monitor student progress. The institution maintains a **mentor-mentee ratio of 1:25 (Maximum 25 mentees per mentor), ensuring focused attention, with 62 faculty members currently engaged.**

In LAEC, a special mentoring session is scheduled i.e, from 11:00 AM to 11:15 AM that is called as mentor break. Students approach their respective mentors, mark attendance and share their issues. Respective mentors address their issues and take actions accordingly. Mentors keep track of absentees by calling their parents and ask the reason of their absentia. Such one-on-one mentoring sessions help assess student's academic performance, track progress, and document discussions for continuous improvement.

Mentors classify the mentees into two categories. Slow learners and advanced learners:

Slow learners are identified based on their internal assessments and classroom observation. Mentors take corrective actions to enhance the performance of slow learners by conducting extra classes and assigning them activities like seminars and assignments.

Advanced learners are highlighted based on their high academic performance, quick comprehension. They are easily identified by their performance in internal exams and classroom participation. They are encouraged by providing advanced study materials beyond the syllabus, participation in online courses like MOOCs , NPTEL etc.

Benefits of the Mentoring System:

The mentoring system supports students in the following ways:

- Gives guidance and support to the students.
- Builds confidence among students.
- Improves Internal marks and attendance, so there will be reduction in dropouts.
- Encourages participation in co-curricular and extracurricular activities.
- With mentoring we can help students in making better career decisions.
- Builds a supportive student-faculty relationship.
- With proper guidance we can train them for better placement opportunities.

Mentoring Structure and Frequency

Table 9.2.1: Outlines the type of mentoring and issues addressed

Sl. No.	Type of Mentoring	Issues Addressed	Facilitator
1	Professional guidance	Discipline, Ethics	Mentor, Class Coordinator, HOD, Disciplinary committee
2	Career advancement	Higher studies, Job opportunities, placement opportunities	Training & Placement Cell

3	Course work specific, academic progress and Laboratory specific	Academic performance, Backlogs, Attendance Shortage.	Mentor, Class Coordinator
4	All round development	Academic Progress, Co-Curricular Progress, Extra-Curricular Progress, Career Progress	Principal, HODs, faculty members
5	Counseling	Mental stress related issues & Challenges	HOD, Principal, Psychiatrist (counsellor)

All-Round Development mentoring:

The student mentoring system at LAEC focuses on four key areas:

1. Academic Progress

- Students are mentored after each **Internal Assessment Test** and **semester examination** to track progress.
- **High achievers** are encouraged to excel further and support **slow learners through peer learning**.
- **Remedial classes** are conducted to improve slow learners.
- **Class toppers and meritorious students** are recognized with felicitation.

2. Co-Curricular Progress

- Student participation in **co-curricular activities** is actively monitored and encouraged.
- Mentors identify relevant technical events, symposiums, seminars, conferences, and competitions at district and state levels.
- Students are encouraged to enroll in online courses to enhance their technical skills.

3. Extra-Curricular Progress

- Mentors collaborate with **NSS units** to promote student participation in social initiatives like:
 - Cleanliness drives
 - Health awareness programs
 - Tree plantation & blood donation camps
- Students actively participate and win prizes in district and state level events, boosting confidence and personality development.
- Talents in dance, music, photography, acting, speech and debate are nurtured through competitions.

A sample report of the Swachhata hi Seva Campaign organized under NSS activity is attached below



Swachhata hi Seva Campaign

On the eve
Gandhi Jayanti



Organized by NSS Unit

1

About Program:


Swachhata Hi Seva (SHS) campaign is being celebrated from 15th September to 2nd October this year under the joint aegis of DDWS & MoHUA for undertaking **shramdaan** activities aiming to generate **jan andolan** through community participation; to provide impetus on implementation of SBM; to disseminate the importance of a **sampoorna swachh** village; to reinforce the concept of **Sanitation as everyone's business**; and as a prelude for the Swachh Bharat Diwas (2nd October) with nationwide participation.

Theme of SHS-2023 is Garbage Free India with focus on visual cleanliness and welfare of SafaiMitras. Like earlier years the spirit of cleanliness activities is **voluntarism/ shramdaan**. The focus of these **swachhata drives** would be on high footfall public places like bus stands, railway stations, cantonment boards, beaches, tourist places, zoos, national parks & sanctuaries, historical monuments, heritage sites, river fronts, ghats, drains and nallahs etc. in both rural & urban areas of State/ UT.

In our College more than 100 NSS Volunteers, Faculty Members are involved in the cleaning out side of college Road and garden area

Photos of Program




 GPS Map Camera



Bidar, Karnataka, India
Survey no. 25, Gornalli, Bidar, Karnataka 585403, India
Lat 17.86615°
Long 77.526642°
30/09/23 03:20 PM GMT +05:30




 GPS Map Camera

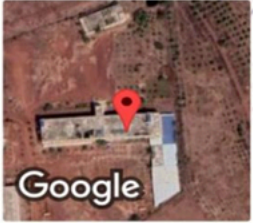


Bidar, Karnataka, India
Survey no. 25, Gornalli, Bidar, Karnataka 585403, India
Lat 17.866444°
Long 77.526827°
30/09/23 03:25 PM GMT +05:30




 GPS Map Camera

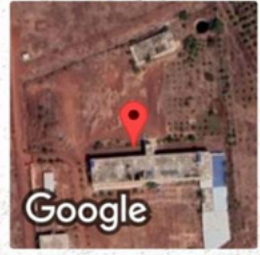
Bidar, Karnataka, India
Survey no. 25, Gornalli, Bidar, Karnataka 585403, India
Lat 17.866379°
Long 77.526827°
30/09/23 03:25 PM GMT +05:30





 GPS Map Camera

Bidar, Karnataka, India
Survey no. 25, Gornalli, Bidar, Karnataka 585403, India
Lat 17.866601°
Long 77.526408°
30/09/23 03:26 PM GMT +05:30



[Certificate of Appreciation](#)

Certificate of Appreciation

This is to certify that

LAEC, NSS Unit

Has contributed in
 Shramdaan for Swachh Bharat
 On
 1st October, 2023, at 10 AM

A Swachh Bharat Mission Initiative

4. Career Progress

- **Career Guidance Cell** helps students achieve their career goals through structured guidance.
- Students are motivated to pursue **higher studies and entrepreneurship**.
- Participation in **training programs, online courses, and placement sessions enhances employability**.

The details of mentoring, including the frequency of meetings, are outlined in Tables 9.2.2 and 9.2.3.

Table 9.2.2: General Mentoring Framework

Academic Year	2023-24	2024-25	2025-26
Types of Mentoring	One – to - One		
No. of Faculty Members	47	54	62
No. of Mentees	685	827	950
Number of Mentees/Mentor	15-25		

Frequency of Mentor-Student Meetings	Once in a month (Every 30-Days)
--------------------------------------	---------------------------------

Table 9.2.3: Department-Wise Mentor-Mentee Distribution

Department	Academic Year	Year of Study	No. of Mentors	Students per Mentor
Computer Science & Engineering	2023-24	II, III, IV	3, 3, 3	20, 20, 14
	2024-25	II, III, IV	6, 3, 3	20, 20, 16
	2025-26	II, III, IV	6, 6, 3	20, 20, 16
Electronics & Comm. Engineering	2023-24	II, III, IV	3, 3, 1	15, 10, 8
	2024-25	II, III, IV	4, 3, 3	14, 15, 10
	2025-26	II, III, IV	3, 4, 3	17, 14, 15
Artificial Intelligence & Machine Learning	2025-26	--	--	--
Mechanical Engineering	2023-24	II, III, IV	3, 1, 2	8, 12, 9
	2024-25	II, III, IV	2, 2, 1	14, 12, 12
	2025-26	II, III, IV	2, 2, 1	13, 12, 12
Civil Engineering	2023-24	II, III, IV	2, 2, 2	8, 13, 7
	2024-25	II, III, IV	2, 2, 2	8, 8, 13
	2025-26	II, III, IV	2, 2, 2	12, 8, 8
Electrical & Electronics Engineering	2023-24	II, III, IV	5, 3, 1	10, 7, 9
	2024-25	II, III, IV	5, 3, 2	10, 13, 10
	2025-26	II, III, IV	5, 3, 3	10, 16, 13
I Year (All Depts.)	2023-24	I	10	25
	2024-25	I	11	23
	2025-26	I	15	17

The sample Mentor list of students for the academic year 2023-2024 is shown below:



LINGARARAJ APPA ENGINEERING COLLEGE, BIDAR
Department of Electronics & Communication Engineering

Mentor List for 2023-24 Students

Sl. No.	USN	NAME	Mentor Name
1	3LA22EC001	Abhishek	Prof. Basavalinga Swamy
2	3LA22EC002	Adarsh	
3	3LA22EC003	Agre Shradha	
4	3LA22EC004	Akash	
5	3LA22EC005	Akshata	
6	3LA22EC007	Amrata	
7	3LA22EC008	Amulya	
8	3LA22EC009	Anjli	
9	3LA22EC010	Avinash	
10	3LA22EC011	Basavashree	
11	3LA22EC012	Biradar Triveni	
12	3LA22EC013	Divyalaxmi	
13	3LA22EC014	Harshita	
14	3LA22EC015	Kiran	
15	3LA22EC016	Md Saheil Pasha	
16	3LA22EC017	Md Shahbaaz	
17	3LA22EC019	Md Faizan Ali	
18	3LA22EC020	Md Inzemam Ahmed	
19	3LA22EC022	Nikhil	
20	3LA22EC023	Pallavi	
21	3LA22EC024	Parameshwar	
22	3LA22EC025	Priyanka	
23	3LA22EC026	Radhika	
24	3LA22EC027	Sandeep	
25	3LA22EC028	Sandhya	
26	3LA22EC029	Sanjana Biradar	
27	3LA22EC030	Shaktidevi	
28	3LA22EC031	Shashank	
29	3LA22EC032	Shashank	
30	3LA22EC033	Shivani	Prof. Chaya Bhavi
31	3LA22EC034	Shradha	
32	3LA22EC036	Shruti	
33	3LA22EC038	Soumyashree	
34	3LA22EC039	Suchitra	
35	3LA22EC040	Suman	
36	3LA22EC041	Suryaprakash	
37	3LA22EC042	S. Pranav Gopal	
38	3LA22EC043	Tejashwini	
39	3LA22EC044	Veeresh	
40	3LA22EC045	Vinayshree	
41	3LA22EC046	Vivek	
42	3LA23EC400	Kanakshi	
43	3LA23EC401	Omsai	
44	3LA23EC402	Sudam	

HOD

PRINCIPAL

The sample time table of the institution which highlights the mentor session i.e. from 11.00 AM to 11.15 AM officially called as "Mentor Break" or "Mentor Meet" is shown below.

LINGARAJ APPA ENGINEERING COLLEGE										
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING										
TIME- TABLE 2025-26					4TH A sec					
CLASS COORDINATOR: Prof. Basavaraj C					WEF Date:-23/02/2026					
DAY/TIME	10:00 11:00	11:00 11:15	11:15 12:15	12:15 01:15	01.15 02.00	02:00 03:00	03:00 04:00	04:00 05:00		
MON	MC	MENTOR BREAK	BCE	DBMS	L U N C H	DMS	ADA/LATEX LAB			
TUE	BCE		ADA	MC		DMS	ADA/LATEX LAB			
WED	ADA		MC	DBMS		DMS	NSS	Technical seminar		
THU	MC		ADA	BCE		DBMS	DBMS/MC LAB			
FRI	DBMS		DMS	BCE		ADA	DBMS/MC LAB			
SAT	DBMS		MC	DMS		ADA	UHV	Technical seminar		
CODE	Credits	Subject			NAME OF THE FACULTY					
BCS401(PCC)	3	ANALYSIS AND DESIGN OF ALGORITHM			Prof. Shruti Modi					
BCS402(IPCC)	4	MICROCONTROLLER			Prof. Sanjeev K/Prof Dattathri/Instr.Anil					
BCS403(IPCC)	4	DATABASE MANAGEMENT SYSTEM			Prof. Vijaylaxmi/Instr.Chinamma					
BCSI 404(PCCL)	1	ANALYSIS AND DESIGN OF ALGORITHM LAB			Prof. Shruti Modi/Instr.Chinamma					
BCS405A(ESC)	3	DISCRETE MATHEMATICAL STRUCTURES			Prof. veerendra					
BCSI 456D(AEC)	1	TECHNICAL WRITING USING LATEX			Prof. Patil Sapna/Instr.kiran					
BBOC 407(BSC)	2	BIOLOGY FOR COMPUTER ENGINEERS			Mr. Joel					
BUHK408(UHV)	1	UNIVERSAL HUMAN VALUES			Prof. Vijaylaxmi					
BNSK 459(MC)	0	NSS			Prof. Pramod Khasge					

CO-ORDINATOR

HOD

PRINCIPAL

The key points about the institution's mentor diary are discussed below:

Front page showcases college name, program name, mentor and mentee details.

Page No.1-3 highlights student's complete profile from personal to professional details.

Page No.4 includes certification courses student has secured during his/her academic journey.

Page No.5-7 discusses individual semester details starting from semester commencement to end of the semester. It majorly keeps documentation about students CIE, SEE marks along with attendance.

Page No.8 outlines the issues raised by the students and resolved by the mentor.

Page No.9-16 includes meeting details conducted every month during each semester with student and parents.

The sample mentor's diary from the academic year 2025-26 has been shown below.



LINGARAJ APPA Engineering College, Gornalli - Bidar

(AICTE Approved & VTU Affiliated)
(Under the aegis of Centenary Celebrated Sharnbasveshwar Vidya Vardhaka Sangha)
Ph. : 8792506036, 8296628553 • email : lingarajappaengg@gmail.com • www.lingaraj-appaec.in

Mentoring and Activities Diary

Program : Electronics and Communication Engineering

Date of Admission : 01/10/2022 Date of Completion : 30/05/2026

Mentor Details

Name of the Teacher :
Dr. Basavalinga Swamy
Designation : Associate Professor
Contact No : 948333094

Mentee Details

Student Name : ಶಿಶಿರಾಜ್ ತಾವೇರಿ
USN : 3LA22EC012
Contact No : 9483043761

LINGARAJ APPA Engineering College, Gornalli - Bidar

Mentoring System Student's Profile



Estd. 2011

Faculty:	Dr. Basavaling Swamy					
Program:	Electronics and Communication					
Mentee's Name as per PUC	Biradasi Triveni	Gender	Female	Nationality	Indian	
Father Name	Biradasi Chandrakanth					
Date of Birth	Date	15	Month	12	Year	2004
Mobile No.	USN	31A22E012	Year of Entry	2022	ABC/APAAR ID	
	Religion	Hindu	Digi Locker ID		Anti-Ragging ID	
	Caste	V. Lingayat	PAN	A22PC2076C	Aadhar No.	365015211332
	Category	II (B)	E-Mail ID	biradasi.triveni630@gmail.com	371-J RD No.	
Student Bank Details	Name & Branch	Canara Bank	Account Number	1945108011058	IFSC Code	CNR80001945
	Parents	Name	Qualification	Occupation	Mobile No.	E-mail
Mother	Biradasi Kavita	10 th	Housewife	8073248872	biradasi.triveni@gmail.com	
Guardian						
Address for Correspondence:	Ganesh Nagar, Gumpa, Bidar					

Previous Examinations Details

Class	Board/University	Year of Passing	Percentage	Register Number	School/College Name
10 th /SSLC	Karnataka Secondary Education Examination Board	2020	84%	20200578120	Ravinda highschool Bidar
PUC/Diploma		2022	74%	535680	Saptagiri Independent P.U. college, Bidar
Bachelor Degree	B.E	2026	Pursuing	31A22E012	Lingaraj appa Engineering college, Bidar
State of study	Karnataka	Medium of study (10 th Std.)	Kannada		
CET/Management:	Management	CET Other Rank		—	

Medical History	Class	Weight	Height	Chest	Waist	Any Health Issues
Blood Group Type	I/II Sem	35	5.1	-	-	-
	III/IV Sem	34	5.2	-	-	-
	V/VI Sem	34	5.2	-	-	-
	VII/VIII Sem	34	5.2	-	-	-
Hobbies	Singing, Dancing, Reading, Learning new skills					
Career Planning	Interested to work in IT field					
Interested Profession	Corporate field					
ICT Knowledge	Basic Computer		Internet Operation			
	Yes <input checked="" type="checkbox"/>	No	Yes	No <input checked="" type="checkbox"/>		
Education Loan		Name of the Bank	Total Fees	Loan Sanctioned	DD/Cheque No.	Sanctioned Date
	I/II Sem	-	-	-	-	-
	III/IV Sem	-	-	-	-	-
	V/VI Sem	-	-	-	-	-
	VII/VIII Sem	-	-	-	-	-
Scholarships		Name of the Scholarship	SSP/NSP ID	Date	Amount	Sanctioned Date
	I/II Sem	SSP	23240024323			
	III/IV Sem	SSP	23240024323			
	V/VI Sem	SSP	23240024323			
	VII/VIII Sem					
Fee Concessions		Total Fees	Fees Paid	Concession	Receipt No.	
	I/II Sem	40,000	40,000	1462, 2208	1494 (21-6-22), 2325	
	III/IV Sem	40,000	40,000	3527, 3354, 4241, 4808		
	V/VI Sem	40,000	40,000	5833, 204		
	VII/VIII Sem	40,000	20,000	2492, 2771		
Cash Incentives		Subject	Amount	Date	Reference(Any)	
	I/II Sem					
	III/IV Sem					
	V/VI Sem					
	VII/VIII Sem					
Poor Students Aid		Cash	Kind			
	I/II Sem					
	III/IV Sem					
	V/VI Sem					
	VII/VIII Sem					

Participation in	NSS	NCC	R&R		
I/II Sem	yes	No	No		
III/IV Sem	yes	NO	- NO		
V/VI Sem	yes	NO	- NO		
VII/VIII Sem	yes	NO	- NO		
Campus Attended	Title		Duration	Level	
I/II Sem	- No -		-	-	
GNDC Bidan	III/IV Sem	IEEE Seminar	1 day	National level	
LAEC Bidan	V/VI Sem	Data Analytics	20 days	state level	
LAEC Bidan	VII/VIII Sem	C codathon	1 day	state level	
Participation in Cultural Activities	Event	Place	Date	Level	Prizes won
LAEC, Bidan (YUKTI) Ramp walk	LAEC	2023	Institution level	- NO -	
LAEC, Bidan (Women's day) Dance	LAEC	2024	Institution level	- NO -	
LAEC, Bidan (Freshers day) Dance	LAEC	2025	Institution level	- NO -	
Literary Activities	Event	Place	Date	Level	Prizes won
LAEC, Bidan (Women's day) Speech	LAEC	2024	Institution level	NO	
LAEC, Bidan (yukti)-SA competition	LAEC	2025	Institution level	NO	
ESSAY					
Sports	Event	Place	Date	Level	Prizes won
LAEC, Bidan (Sports day) Cricket	LAEC	2024	Institution level	NO	
Extension Activities	Event	Place	Date	Level	Prizes won
Bridge course	LAEC	2022	Institution level	- NO -	
NSS Activity	LAEC	2023-24	Institution level	- NO -	
NSS Activity	LAEC	2024	Institution level	- NO -	
NSS Activity	LAEC	2025	Institution level	- NO -	

Attendance Percentage	I Sem	II Sem	III Sem	IV Sem	V Sem	VI Sem	VII Sem	VIII Sem	IX Sem	X Sem
	90%	91%	87%	88%	95%	94%	90%			
Certificate Course	Title						Duration			
I Sem	Google Data Analytics Capstone						1 day			
II Sem	-									
III Sem	-									
IV Sem	€ €0 -									
V Sem	Embedded IOT Application Design and Development						3 days			
VI Sem	poster presentation on National Science day						1 day			
VII Sem	C Codation Data Analytics						10 days			
VIII Sem - VII	C Codation on IEEE Day						1 day			
IX Sem	-									
X Sem	-									

Marks Details

I-Semester		Commencement of Semester: 21/01/2022						End of Semester: 18.3.22			
Course/Code	IA-I	IA-II	Impr. IA-I	Impr. IA-II	Average Marks (IA-I & IA-II)	Assignment & Other	Attendance	CIE Total	SEE	Total Marks	Grade Obtained
BMAE101	24	24			24	24	95%	48	23	71	A
BPHYE102	20	20			20	20	85%	40	25	65	B+
BBEE103	24	24			24	24	85%	48	26	74	A
BENGR106	20	20			20	20	91%	40	24	64	B+
BNSKA107	23	23			23	23	96%	46	18	64	A
BSEHA158	24	24			24	25	97%	49	25	74	A
BESCH104B							94%	50	23	73	A
BETCA105H							92%	47	33	80	A+
								48		74	A

Attendance Percentage	I Sem	II Sem	III Sem	IV Sem	V Sem	VI Sem	VII Sem	VIII Sem	IX Sem	X Sem
	90%	91%	87%	88%	95%	94%	90%			
Certificate Course	Title						Duration			
I Sem	Google Data Analytics Capstone						1 day			
II Sem	-									
III Sem	-									
IV Sem	€ €0 -									
V Sem	Embedded IOT Application Design and Development						3 days			
VI Sem	poster presentation on National Science day						1 day			
VII Sem	C Codation Data Analytics						10 days			
VIII Sem - VII	C Codation on IEEE Day						1 day			
IX Sem	-									
X Sem	-									

Marks Details

I-Semester		Commencement of Semester: 21/01/2022						End of Semester: 18.3.22			
Course/Code	IA-I	IA-II	Impr. IA-I	Impr. IA-II	Average Marks (IA-I & IA-II)	Assignment & Other	Attendance	CIE Total	SEE	Total Marks	Grade Obtained
BMAE101	24	24			24	24	95%	48	23	71	A
BPHYE102	20	20			20	20	85%	40	25	65	B+
BBEE103	24	24			24	24	85%	48	26	74	A
BENGR106	20	20			20	20	91%	40	24	64	B+
BNSKA107	23	23			23	23	96%	46	18	64	A
BSEHA158	24	24			24	25	97%	49	25	74	A
BESCH104B							94%	50	23	73	A
BETCA105H							92%	47	33	80	A+
								48		74	A

II-Semester		Commencement of Semester: 25/5/2023					End of Semester: 9/9/23				
Course/Code	IA-I	IA-II	Impr. IA-I	Impr. IA-II	Average Marks (IA-I & IA-II)	Assignment & Other	Attendance	CIE Total	SEE	Total Marks	Grade Obtained
BMATE201	24	24			24	25	96%	49	3+	83	A+
BCHFE202	25	25			25	25	95%	50	38	88	A+
BCEDK203	25	25			25	25	85%	50	39	89	A+
BPWSK206	25	25			25	25	90%	50	22	72	A
BICOH207	25	25			25	25	94%	50	23	73	A
BIDTK258	20	25			25	25	94%	50	37	87	A+
BESCK204A	20	20			20	25	95%	43	35	78	A
BPLCH205B	24	24			24	25	95%	49	29	78	A

III-Semester		Commencement of Semester: 25/10/23					End of Semester: 20/2/24				
Course/Code	IA-I	IA-II	Impr. IA-I	Impr. IA-II	Average Marks (IA-I & IA-II)	Assignment & Other	Attendance	CIE Total	SEE	Total Marks	Grade Obtained
BMATEC301	25	25			25	25	85%	50	18	63	B+
BEC302	18	11			12	10+25	91%	47	33	80	A+
BEC303	14	15			15	14+10	90%	49	18	67	B+
BEC304	22	20			21	24+24	90%	46	18	64	B+
BEC1305	10	18			10+10=20	29 (Lab cont)	94%	49	44	93	A
BSCN307								100	0	100	A+
BNSK359					98			92	0	98	-
BEC358C	10	10			10+10=20	29 (Lab cont)	90%	49	45	94	-
BEC306C	24	24			24	25	95%	49	39	88	A+

IV-Semester		Commencement of Semester: 20.05.24				End of Semester: 31.8.24					
Course/Code	IA-I	IA-II	Impr. IA-I	Impr. IA-II	Average Marks (IA-I & IA-II)	Assignment & Other	Attendance	CIE Total	SEE	Total Marks	Grade Obtained
BEC401	20	22			21	23	90%	44	22	66	B+
BEC402	14	14			14	25+10	92%	49	24	73	A
BEC403	14	8			11	10+24	90%	49	26	75	A
BEC404	10	10			10+10=20	29 (Lab)	89%	49	45	94	O
BOM404	20	25			20	25	91%	48	37	85	A+
BUM408	25	25			25+24	25	94%	49	38	87	A+
BNS17459	X				Activity → 96M		100%	98	0	98	O
BEC405C	23	17			20	25	90%	45	33	78	A
BEC456D	10	10			10+10=20	26 (Lab)	89%	46	48	94	O

V-Semester		Commencement of Semester: 9.9.24				End of Semester: 21.12.24					
Course/Code	IA-I	IA-II	Impr. IA-I	Impr. IA-II	Average Marks (IA-I & IA-II)	Assignment & Other	Attendance	CIE Total	SEE	Total Marks	Grade Obtained
BEC501	25	25			25	25	90%	50	34	84	A+
BEC502	24	25			24	24	94%	48	24	72	A
BEC503	24	23			24	24	92%	48	21	69	B+
BEC504	10	10			10+10=20	20	91%	50	47	97	O
BEC586					40+40+10			90	-0	90	-
BRM5557	22	24			23	22	93%	45	33	78	A
BES503					50			50	29	79	A
BNS559					Activity → 1SD		100%	100	0	100	-
BEC5157C	20	15			18	24	89%	42	27	69	B+

VI-Semester		Commencement of Semester: 10.2.25					End of Semester: 31.5.25				
Course/Code	IA-I	IA-II	Impr. IA-I	Impr. IA-II	Average Marks (IA-I & IA-II)	Assignment & Other	Attendance	CIE Total	SEE	Total Marks	Grade Obtained
BEC601	24	25			24	24	90%	48	33	81	A+
BEC602	24	24			24	25	92%	49	29	78	A
BEC685					95		90% →	95	0	95	-
BEC606	10	10			10+10=20	Lab marks 29	86%	49	49	98	-
BNS4658					92		90%	92	0	92	-
BIS609							92%	93	0	93	-
BEE6546	25	25			25	23	91%	48	32	80	A+
BEC657C	10	8			10+8=18	30	90%	48	48	96	-
BEC613C	25	25			25	13+10	89%	48	26	74	A

VII-Semester		Commencement of Semester: 4.8.25					End of Semester: 4.12.25				
Course/Code	IA-I	IA-II	Impr. IA-I	Impr. IA-II	Average Marks (IA-I & IA-II)	Assignment & Other	Attendance	CIE Total	SEE	Total Marks	Grade Obtained
BEC701	12	18			18	05+05+22	90%	45	26	81	A+
BEC702	19	20	00	00	9.8	1.0+1.0+2.0	92%	49	29	78	A
BEC703	25	24			24	24+24	92%	48	30	78	A
BEC706			Project phase		18+28+23		88%	95	96	191	-
BQS755G	24	25			25	15+10	90%	50	29	79	A
BEG714D	24	25			24	24	92%	48	30	78	A

VIII-Semester		Commencement of Semester: 27.1.26				End of Semester: 9.5.26					
Course/Code	IA-I	IA-II	Impr. IA-I	Impr. IA-II	Average Marks (IA-I & IA-II)	Assignment & Other	Attendance	CIE Total	SEE	Total Marks	Grade Obtained
BEC801X											
	Currently perceiving at www.online-vai.ac.in										
BEC802 X	"	"	"	"	"	"	"				
BEC803											
	Currently doing inteeship at "Inventerion technologies LLP".										

Remarks: (Any Personal Issues)	
Grievance Raised with Date	Grievance Resolved with Date
→ Asked for additional lab Components for doing proper lab (5th sem-2024)	→ provided all Components - to them. ✓
→ Proposal for Industrial trip to hyderabad for exploring inteeship NRSC Campus. (2025)	→ proposal accepted. - ✓
→ Industrial trip to bangalore for (TSRO) exploring inteeship Campus (Oct-2024)	→ Proposal accepted. - ✓

Basavaling Swamy
Mentor

Triveni
Mentee

[Signature]
Parents

[Signature]
Principal

Mentor Mentee Meeting Details

Semester I

Academic Year: 2022-23

Sl. No.	Date of Meeting	Key Points Discussed	Remarks by Mentor	Mentee's Signature	Mentor's Signature
1.	30/01/22	Discussed IA marks	- Good.	Triveni	R. Basaling Swamy
2.	20/02/22	Previous Result	"	Triveni	R
3.	30/02/22	Skills, program	"	Triveni	R
4.	-				
5.	-				
6.	-				
7.	-				
8.	-				




Additional Observations (if any):

- No -

Mentor Mentee Meeting Details

Semester II

Academic Year: 2022-23

Sl. No.	Date of Meeting	Key Points Discussed	Remarks by Mentor	Mentee's Signature	Mentor's Signature
1.	20/6/23	Discussed IA marks	Good	<u>Triveni</u>	
2.	25/7/23	IA - marks, and	V-Good	<u>Triveni</u>	
3.	28/8/23	Assignments	Good.	<u>Triveni</u>	
4.					
5.					
6.					
7.					
8.					

Additional Observations (if any):

— No —

Mentor Mentee Meeting Details

Academic Year 2023-24

Semester IV

Sl. No.	Date of Meeting	Key Points Discussed	Remarks by Mentor	Mentee's Signature	Mentor's Signature
1.	08/6/24	Previous Result	Average	Triveni	
2.	28/7/24	IA Marks	Good	Triveni	
3.	30/8/24	Attendance	V.Good	Triveni	
4.					
5.					
6.					
7.					
8.					

Additional Observations (if any): — No —

Mentor Mentee Meeting Details

Semester V

Academic Year: 2023-24

Sl. No.	Date of Meeting	Key Points Discussed	Remarks by Mentor	Mentee's Signature	Mentor's Signature
1.	30/9/24	Previous Result	Good	Triveni	[Signature]
2.	25/10/24	Events & activities	Good	Triveni	[Signature]
3.	30/11/24	Attendance + IA	Average	Triveni	[Signature]
4.					
5.					
6.					
7.					
8.					

Additional Observations (if any): ——— No ———

Mentor Mentee Meeting Details

Academic Year: 24-25

Semester VI

Sl. No.	Date of Meeting	Key Points Discussed	Remarks by Mentor	Mentee's Signature	Mentor's Signature
1.	21/2/25	IA marks	Good	<u>Touven</u>	<u>[Signature]</u>
2.	25/3/25	Previous Result	-	<u>Touven</u>	<u>[Signature]</u>
3.	28/4/25	Attendance	-	<u>Touven</u>	<u>[Signature]</u>
4.					
5.					
6.					
7.					
8.					

Additional Observations (if any): No

Mentor Mentee Meeting Details

Semester VII

Academic Year: 24-25

Sl. No.	Date of Meeting	Key Points Discussed	Remarks by Mentor	Mentee's Signature	Mentor's Signature
1.	30/9/25	Previous Result	Good	<u>Tajivani</u>	<u>[Signature]</u>
2.	31/10/25	IA marks	Average	<u>Tajivani</u>	<u>[Signature]</u>
3.	24/11/25	attendance	Good	<u>Tajivani</u>	<u>[Signature]</u>
4.					
5.					
6.					
7.					
8.					


Additional Observations (if any):

— None —

Mentor Mentee Meeting Details

Semester VIII

Academic Year 25-26

Sl. No.	Date of Meeting	Key Points Discussed	Remarks by Mentor	Mentee's Signature	Mentor's Signature
1.	28/11/2026	Discussion about Inter Ship and Selection	V. Good	Triveni	
2.		about PEC, OEC Subjects	-		
3.					
4.					
5.					
6.					
7.					
8.					

Additional Observations (if any): — No —

Below are the screenshots captured during mentor-mentee meeting along with her parents



Below are the screenshots showing grievance resolved by the mentor and concerned department.



Below are the screenshots showing certification courses student has done:

**YOUTH
EMPOWERMENT
PROGRAM**

CERTIFICATE OF RECOGNITION

This is to certify that

Biradar Triveni Biradar

has successfully completed the **Certificate Course on Data Analytics**
with Grade **C** under Atos Prayas Foundation, Youth Skilling & Employability Initiative
held from 20 August 2025 to 10 September 2025
at Lingaraj Appa Engineering College, Bidar, Karnataka

G-2025-G4700-0038 | 10 September 2025


Deivy Ajit
CSR Operations Management, India
Atos Prayas Foundation


Srikanth V
Chief Executive Officer (I/c)
ICT Academy

Below is the offer letter indicating student currently doing internship:



Reg No : AAB 9565

INTERNSHIP OFFER LETTER Date 11th Nov 2025

To
Biradar Triveni
Final Year, ECE Department
Lingaraj Appa Engineering College , Bidar .

Dear Biradar Triveni

We are pleased to offer you the internship in the role of " **Trainee Data Science Engineer** " at Inventeron Technologies with effect from **19th Jan 2026** a period of **15 weeks till 5th May 2026**

Please note the terms of this arrangement: a. On joining the Company, you are required to comply with the policies, values and obligations. It also requires you to abide by the Management Systems and Culture defined by the Company members . b. All ownership and usage rights of any work completed under the internship by you will remain with Inventeron Technologies only

c. Upon the expiry or termination of this Agreement, you will return any property, documentation, computer programs, files, records, or Confidential Information which is the Company's property or dispose of the same as per the instructions.

d). You will fully abide by the Non-Disclosure Agreement.

If you have questions on any of the above terms, please feel free to contact us at hr@inventeron.com

We wish you a successful career working with Inventeron Technologies Bangalore

For Inventeron Technologies And Business Solutions LLP


Managing Director

Inventeron Technologies and Business Solutions LLP

 No.364, 19th Main Road, 1st Block, Rajajinagar,
Bengaluru - 560 010

 +91 8660723524
+91 7353822642

 hr@inventeron.com
info@inventeron.com



Below are the screenshots showing how senior student is guiding to junior students(peer learning):



9.3 Feedback Analysis (10)

9.3 Feedback Analysis

The feedback system plays a crucial role in helping the institute take corrective measures whenever required. It also assists teachers in enhancing their teaching methodologies and ensures better alignment between the subject teacher and the class. Feedback collected from students is systematically analyzed, and a detailed report is generated for each faculty member for every subject. Students provide feedback on various aspects of the teaching–learning process, including theory classes, laboratory sessions, and project guidance. Each faculty member is expected to achieve a minimum overall student feedback score of 70% for every course they teach in a semester. In cases where the feedback score falls below 70%, the concerned faculty member is counseled by the Head of the Department (HOD) to identify and rectify the shortcomings, and appropriate suggestions are provided for improvement.

9.3.1 Feedback Collection Process on Teaching Learning Process

- Students receive communication via WhatsApp/online process with detailed instructions on providing feedback.
- Every semester, feedback is collected through online process System.
- Once feedback is collected by the students, it will be verified by Head of the department for circulating among their faculties.

The following questionnaires are used to gather student feedback for theory courses, laboratory sessions, and project supervision.

Theory Feedback Questions

1. The teacher Communicates properly.
2. The pace of coverage of topics is comfortable.
3. The teacher encourages questions, participation and discussions in the class.
4. The teacher discusses topics in details and wherever necessary examples are worked out well.
5. The teacher relates the course material with real world situations.
6. The teacher inspires me by his/her knowledge in the subject and presents good attitude.
7. The teacher discusses beyond syllabus topic and also advises on personality development.
8. The teacher stress on Time Management and Discipline.
9. Teacher uses modern teaching aides and innovative methods as when required.
10. Periodic assessments were conducted as per schedule.
11. Question paper covers the entire COs and BL in the course.
12. The teacher is fair and unbiased in the evaluation process.

Laboratory Feedback Questions

1. Availability of the teacher for the full lab session.
2. Demonstration of experiments to facilitate understanding and Assistance in exploring the study areas involved in experiments.
3. Inclusion of additional experiments beyond the syllabus.
4. Adoption of innovative methods for conducting experiments.
5. Depth of coverage in lab experiments.
6. Quality of regular viva-voce during lab sessions.
7. Timely evaluation of lab records and observation notebooks and Fairness in evaluation.

Project Feedback Questions

Availability of the guide for interaction.

1. Adequacy of the guide's knowledge.
2. Effectiveness of communication and guidance.
3. Contribution of the guide's ideas toward project quality.
4. Periodic evaluation of project progress.
5. Fairness in evaluation.
6. Assistance in exploring the project's area of study.
7. Effective communication of project-related content.

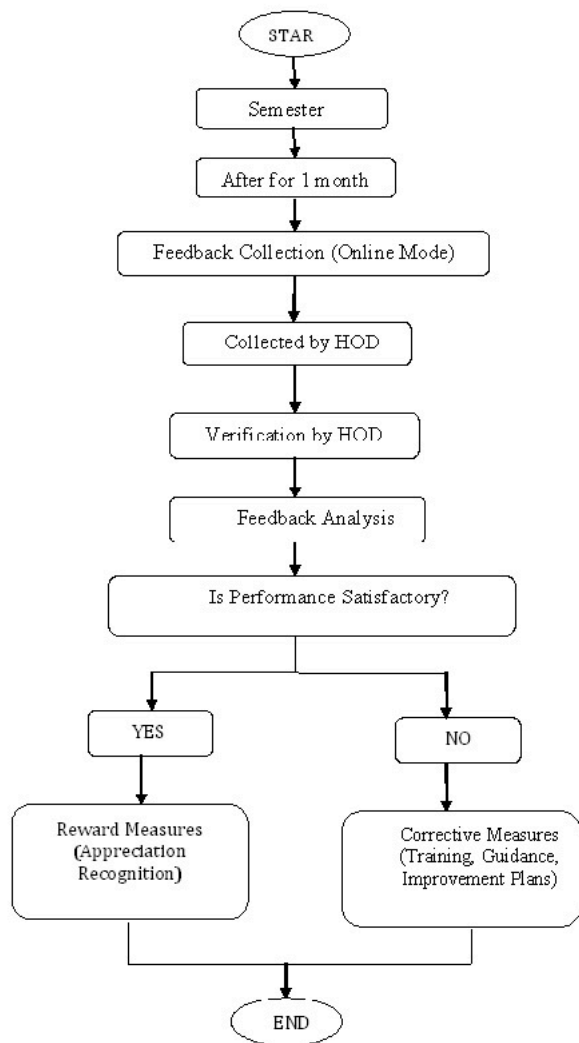


Figure 9.3.1: Flow chart of faculty feed back

9.3.2 Feedback Analysis Process

- Percentage of students participating : 75%-80%
- Feedback collected for all courses: Yes
- The collected feedback is analyzed and a report is generated for each faculty for every Course.
- The collected feedback is analyzed based on a predefined questionnaire set by the institute. Evaluations follow a five-point scale
 1. Poor
 2. Average
 3. Good
 4. Very Good
 5. Excellent

An average score percentage is calculated to assess overall feedback.

Average Score Percentage = $(\text{Total Obtained Score}) / (\text{Total Maximum Score}) \times 100$

Student Feedback on Faculties - 3 Sem



B *I* U

Form description

Name of the Student *

Short answer text

USN *



Short answer text

Semester *

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

Figure 9.3.2: Screen print of student feedback form

Theory Feedback Questions

Description (optional)

The teacher communicates clearly *

	Poor	Average	Good	Very Good	Excellent
BMATE301 - A...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BEC304 - Netw...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BEC306C - Co...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BSCK307 - Soc...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

The pace of coverage of topics is comfortable *

	Poor	Average	Good	Very Good	Excellent
BMATE301 - A...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BEC304 - Netw...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BEC306C - Co...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BSCK307 - Soc...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 9.3.3: Screen print of theory feedback form

Laboratory Feedback Questions

Description (optional)

Availability of the teacher for the full lab session

	Poor	Average	Good	Very Good	Excellent
BEC302 - Digit...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BEC303 - Electr...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BECL305 - Anal...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BEC358C - C++...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Demonstration of experiments to facilitate understanding and Assistance in exploring the study areas involved in experiments

	Poor	Average	Good	Very Good	Excellent
BEC302 - Digit...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BEC303 - Electr...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BECL305 - Anal...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
BEC358C - C++...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 9.3.4: Screen print of Laboratory feedback form

Project Feedback Questions

Description (optional)

BEC685 - Project Phase -1

	Poor	Average	Good	Very Good	Excellent
Availability of t...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Adequacy of th...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Effectiveness o...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contribution of...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Periodic evalua...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fairness in eva...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assistance in e...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Effective com...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 9.3.5: Screen print of Project feedback form

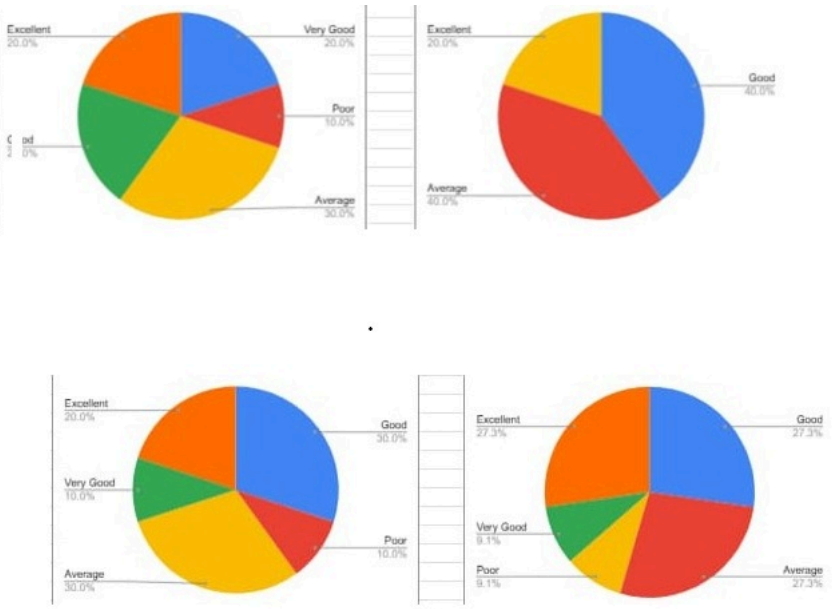


Figure 9.3.6: Pie chart of Faculty Feedback given by individual student

9.3.3 Basic Reward/Corrective measures during the assessment period

Average feedback range	Action
Less than 70%	Explanation is sought and advised to improve
Between 70% to 90% No action	Advised to improve in specified weak parameters
Above 90%	Recognition and felicitation

9.3.3.1 Corrective Measures

- The online questionnaire format is designed on 100-point scale.
- Faculty members who score less than 70% are advised and guided accordingly by the HOD.
- The faculty members are deputed for FDPs and workshops for wholesome training.

After due corrective measures are taken, the improvement is assessed at the end of the Semester.

Indices for Measuring Teaching & Learning Quality and Summary of Index Values for All Courses/Faculty

Exhibit the details of analysis done

The sample record from the feedback portal, reflecting students feedback on theory, laboratory, and project components for the academic year 2024-25, is shown below.

Sl No	Faculty Name and Designation	Subject Name	Semester	Section	Batch	Feedback
1	Dr. Sagarkumar Buyya	(BEC685)	VI	-		85%
2	Dr. Basavalinga Swamy	BECL606)	VI	-	BI-B2	93%
3	Prof. Chaya Bhavi	(BEC304)	III	-		87%
4	Prof. Aparna Hugar	(BECL657C)	VI	-	B1-B2	95%
		(BEC306C)	III	-		89%
5	Prof. Jyoti Sunte	(BECL305)	III	-	B1-B2	86%

Table 9.3.3.1: Sample overall feedback analysis report on Teaching Learning Process

9.3.2 Feedback on Academic facilities

Student Feedback Collection Process:

- Every Semester feedback is collected from students manually for improving the quality of laboratories, library, medical care, hostels, mess, gymnasium and sports.
- Students Grievances meeting is conducted every month to address their problems
- Suggestion box is also placed to collect feedback from the students Analysis

The feedback given by the students is consolidated and analyzed. The respective section in-charges and Principal discuss the findings in the consolidated report with the management and come out with necessary actions.

Feedback Analysis and corrective Measure

The chairperson discusses the consolidated report with higher authorities to decide on necessary actions. The feedback obtained is analyzed and passed on to the respective personnel in-charge for corrective actions / improvements.

Some of the corrective actions initiated are:

1. Drinking water facility
2. office automation in progress
3. Internet facility improved
4. Library timing relaxed for exam
5. Digital library established for self-study components

Feedback Collection Process

Questionnaire for Student Feedback on Facilities:

1. How do you rate the classroom infrastructure?
2. How do you rate the lab facilities at the institution?
3. How do you rate the library facilities provided by the institution
4. Are you satisfied with the placement support provided?
5. How do you rate the sports facilities provided by the institution?
6. Are you satisfied with the toilet facilities and maintenance?
7. How do you rate the transport facilities provided by the college?
8. How do you rate the canteen facilities provided by the institution?
9. How do you rate the drinking water facilities provided by the institution?
10. How do you rate the photocopying facilities available at the institution?

Rating Scale:

- 5: Excellent
- 4: Very Good
- 3: Good
- 2: Satisfactory
- 1: Average

Student Feedback on Facilities

* Indicates required question

Email *

Record laec.ece@gmail.com as the email to be included with my response

Name *

Your answer _____

USN *

Your answer _____

Semester *

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

Cleanliness of classrooms with Audio/Visual facilities (Projector, Smart board) *

Choose ▾

Availability of lab equipment, condition, Internet and software availability in labs *

Choose ▾

Availability of textbooks, reference books and digital library/e-resources *

Choose ▾

Availability of placement training programs in all aspects *

Choose ▾

Transportation and hostel facilities *

Choose ▾

Motivating through scholarship, awards and medals. *

Choose ▾

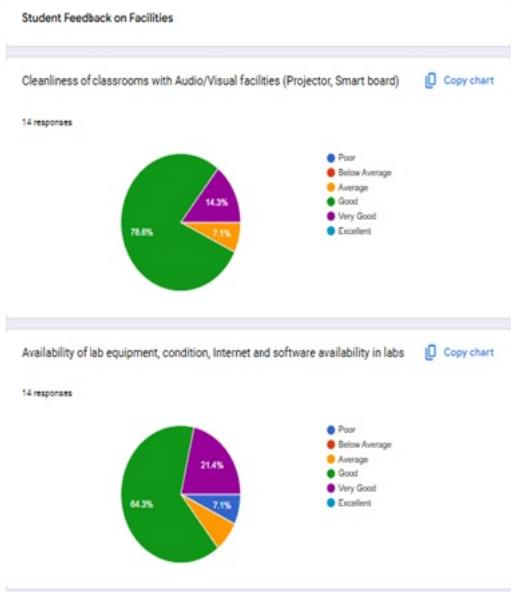


Figure 9.3.4: Screen Print of feedback on Facilities

Feedback Analysis

- The feedback provided by students is consolidated and analyzed.
- The principal discusses the consolidated report with higher authorities to decide on necessary actions.
- In addition to academic concerns, student feedback is used to improve campus infrastructure, cleanliness, library services, security, and other aspects of the institution.

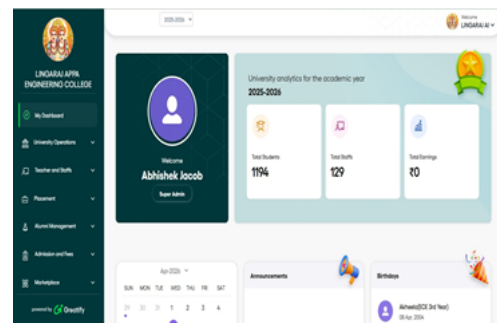
9.3.4.2 Corrective actions taken during the assessment period

The Head of the department and Principal discusses the consolidated report with higher authorities to decide on necessary actions.

The feedback obtained is analyzed and passed on to the respective personnel in-charge for corrective actions / Improvements.

Some of the corrective actions initiated are:

1. Drinking water facility
2. office automation in progress
3. Internet facility improved
4. Library timing relaxed for exam
5. Digital library established for self-study components





The LAEC has set up a dedicated Training & Placement Cell to support students in different areas of career development. The cell offers placement assistance, career guidance, support for higher studies, coaching for competitive examinations, and various skill enhancement programs. The Training & Placement Cell is headed by a Training & Placement Officer(TPO), who serves as the main point of contact across all departments. The Placement Officer is assisted by Departmental Placement Coordinators to ensure smooth coordination and effective implementation at the departmental level. The members of the Training & Placement Cell are as follows:

Table 9.4.1: Members of Placement Cell

Sl. No.	Name of the Faculty	Designation	Department	Designation
1.	Dr. Vinita Patil	Principal	Electronics and Communication Engineering	Chairperson
2.	Mr. Basavaraj Sedam	Assistant Professor	Computer Science and Engineering	Training & Placement Officer (TPO)
3.	Ms.Sahana Patil	Assistant Professor	MBA	Co-Ordinator
4.	Mrs.Vinaya	Assistant Professor	Computer Science and Engineering	Co-Ordinator
5.	Dr.SagarKumar B	Associate Professor	Electronics and Communication Engineering	Co-Ordinator
6.	Mrs.Archana	Assistant Professor	Electrical and Electronics Engineering	Co-Ordinator
7	Mr.Shivaji	Assistant Professor	Mechanical Engineering	Co-Ordinator
8	Mr.Kalyan Rao	Assistant Professor	Civil Engineering	Co-Ordinator

9.4.1 Placement Facilities:

The institution has a dedicated Training & Placement Cell that supports student recruitment activities. It is headed by a Training & Placement officer and assisted by department-wise placement coordinators. The Placement Cell is equipped with modern communication systems, enabling smooth interaction between students and industry representatives for quick and effective responses. In addition, the department is Wi-Fi enabled to improve connectivity and access. The infrastructure facilities available at the institute are as follows:

Table 9.4.2: Placement Department Facilities and Resources

Sl. No	Facility	Quantity
1	Placement Cell	Available
2	Placement Officer Room	Available
3	Well-equipped Interview / GD Rooms	Available

Sl. No	Facility	Quantity
4	Reception Area	Available
5	HR Room	Available
6	Career Counselling Room	Available
7	Online Test Facilities	Available
8	Support Staff	Available

The institution provides comprehensive training and placement support through a dedicated Training & **Placement Cell** that coordinates all career-related activities. A Training & **Placement Officer Room** ensures smooth interaction between students and recruiters. Well-equipped **Interview and Group Discussion rooms**, along with an additional **Interview Room**, help students practice and perform confidently during recruitment processes. The presence of a **Career Counselling Room** supports students in making informed career choices. Additionally, **online test facilities with adequate systems** enable students to prepare for aptitude and technical assessments, while a **reception area and support staff** ensures efficient management and assistance throughout placement activities.

Table 9.4.3: Calendar of Scheduled Training Programs

Month	Activity	Target Students
July	Career Orientation Program	Final Year
August	Communication Skills Training	2nd & 3rd Year
September	Aptitude Training	Final Year
October	Resume Building Workshop	Final Year
November	Mock Interviews	Final Year
January	Industry Interaction Sessions	All Students
February	Pre-Placement Training	Final Year
March	Internship Guidance	Pre-Final Year

The institution follows a well-structured calendar of training programs to systematically prepare students for their careers. The schedule begins in July with a Career Orientation Program for final-year students, helping them understand placement processes and career opportunities. In August, Communication Skills Training is conducted for 2nd and 3rd-year students to enhance their interpersonal and professional communication abilities.

During September, final-year students undergo Aptitude Training to strengthen their problem-solving and analytical skills. October focuses on a Resume Building Workshop, guiding students in creating effective and professional resumes. In November, Mock Interviews are organized to provide real-time interview experience and boost confidence.

The even semester begins with Industry Interaction Sessions in January for all students, offering exposure to industry expectations and trends. February includes Pre-Placement Training for final-year students, ensuring they are fully prepared for recruitment drives. Finally, in March, Internship Guidance is provided to pre-final year students, helping them secure relevant industry experience. This planned approach ensures continuous skill development and effective placement readiness.

9.4.1.1. Availability of Career Guidance Facilities

The Career Guidance Cell conducts the following activities:

- **Pre-Placement Training:** Provides training in soft skills, aptitude, and technical subjects to prepare students for recruitment procedures.
- **Career Guidance:** Offers advice and mentoring for effective career planning.
- **Placement Drives:** Organizes recruitment drives both on-campus and off-campus.
- **Industrial Training and Internship Support:** Assists students in obtaining internships and industry training opportunities.

9.4.2. Pre-Placement Training

The Department of Training and Placement focuses on the following skill development programs:

9.4.2.1 Technical Training

The following technical skill development programs are offered:

- Programming Languages: C, C++, Java, Python
- Core Skills: Data Structures, Algorithms, Problem Solving, Design Thinking
- Emerging Technologies: Machine Learning, Artificial Intelligence, IoT (Basic Concepts), Robotics
- Software & Tools: AutoCAD (2D/3D), Database Management, Hadoop, Embedded Systems
- Web Technologies: Angular, Node.js, Full Stack Development, MERN Stack

9.4.2.2 Aptitude Training

The aptitude training program covers the following topics:

- Number Systems: Properties of Numbers, Multiples, Factorials, Last Digit & Remainders
- Quantitative Skills: Percentage, Proportion, Mixture & Allegation
- Arithmetic Concepts: Speed, Distance & Time; Time & Work; Chain Rule
- Data & Analysis: Probability and Statistics
- Logical Concepts: Clocks & Calendars, Coding-Decoding, Deductive Reasoning
- Mathematical Basics: Algebra, Basic Trigonometry
- Analytical Skills: Directions, Family Tree, Various Conditions

9.4.2.3 Soft Skills Development

The institution focuses on enhancing the following soft skills:

- Personal Development: Grooming, Discipline, Attitude, Change Management
- Career Skills: Goal Setting, Career Planning, Resume Writing
- Interpersonal Skills: Team Building, Leadership Skills, Problem Solving
- Communication in Practice: Public Speaking, Group Discussions, Personal Interviews
- Life Skills: Time Management, Stress Management, Financial Awareness

9.4.2.4 Communication Skills

The communication training includes:

- English Grammar and Vocabulary
- Reading and Listening Comprehension
- Writing for Effective Communication
- Listening for Information
- Tactical Speaking Skills
- Business Communication

9.4.3 Placement Process and Support

The placement process is organized to provide effective support to students at the college level:

- **Student Categorization:** Students are grouped based on academic performance (below 60%, 60%+, 65%+, 70%+) and further classified into IT and non-IT streams.
- **Company Interaction:** The Training and Placement Officer (TPO) communicates with companies through email or direct contact, sharing student profiles and inviting them for campus recruitment drives.
- **Communication Channel:** A WhatsApp group is maintained for faculty coordinators and students to share updates such as company information and eligibility criteria.
- **Student Registration:** Interested students register with the T&P Cell to participate in placement drives.
- **Selection Process:** Students take part in pre-placement talks, aptitude/technical tests, group discussions, and personal interviews during recruitment drives.
- **Placement Policy:** The college follows a "One Student – One Job" policy, and selected candidates are usually announced on the same day.
- **Evaluation and Feedback:** Students are assessed in English communication, aptitude, technical, and domain knowledge. Feedback on performance is shared to help improve their skills.
- **Awareness Activities:** Seminars and guest lectures by experts are conducted to create awareness about career options and higher studies.

9.4.4 Strengthening Industry Linkages for Internship and Placement

The Career Guidance/Placement Cell works to build strong industry connections for better opportunities:

- **MoUs with Industries:** The College signs Memorandums of Understanding (MoUs) with various industries to improve training and placement opportunities.
- **Internship Opportunities:** Students are encouraged to take up internships as part of their academic curriculum to gain practical exposure.
- **Internship Support:** The T&P Cell assists students in securing internships during semester breaks in collaboration with industries.
- **Industrial Visits:** Departments arrange industrial visits to help students understand real-time industry practices and technologies, supporting career development and placements.

9.4.4.1 List of Recruiters

The institute has a good list of recruiters who visit the campus every year for placements. These recruiters include companies from different sectors, providing students with various job opportunities. Their regular participation shows the trust they have in the quality and skills of the students.

Table 9.4.4.1: The following companies/organizations have participated in the college training & placement activities.

Sl. No.	Name of the Company/Organization	Type of Organization
1	QSpiders	Training / Private Firm
2	GQT	Training / Private Firm
3	ICT ACADEMY	Training / Private Firm
4	SEVENTH SENSE Technology	Training / Private Firm
5	Bajaj Finserv	Training / Private Firm
6	PENTAGAON SPACE	Training / Private Firm
7	VIT	Training / Private Firm

9.4.4.2 Details of MoUs

The institute has signed MoUs with various industries to improve collaboration and provide better opportunities for students. These partnerships help in organizing training programs, internships, workshops, and industry visits. They also help students gain practical knowledge and exposure to real work environments.

Table 9.4.4.2: Details of MoUs Established for Industry Collaboration.

LINGARAJ APPA ENGINEERING COLLEGE, BIDAR.			
LIST OF MEMORANDUM OF UNDERSTANDING			
Sl.NO	DATE	Companies\Internships & placements\Universities\Corporations	MoU's formulated
1	01-Jan-16	Upsearch Technologies llp, Hyderabad.	FDP and delivering sessions on the topics helping for industrial visit.
2	15-Feb-17	Meta-1	Education Provider.
3	05-Aug-18	Canter Cadd ind pvt ltd.	Training and Placement.
4	05-Dec-18	Meta-1	Education Provider.
5	19-Apr-19	Excelr Raising Excellence.	Student Development and Faculty Development Programs.
6	01-Aug-19	Innoovatum.com.	Skill development, outcome based training, internship technology workshops.
7	03-Sep-19	BHT Technologies llp.	Training and Placement.

8	18-Sep-19	Institute of Aeronautical Engineering, Dundigal.	Learning and to promote the exchange of knowledge and resources.
9	18-Aug-20	Hiremee.	CSR initiative.
10	02-Nov-20	Ubercore Data Labs pvt ltd, Gumpa Road, Bidar.	Academic and research related activities.
11	09-May-22	Techkshetra Info Solutions, Bengaluru.	Training and Placement.
12	01-Jan-23	Cadmaxx edtech pvt ltd, Bangalore.	Engineering Education and Problem Solving Activities.
13	06-Feb-23	ICT, Academy Membership.	Youth Empowerment Program is CSR Initiative of Atos Prayas Foundation.
14	10-Apr-23	Pragyan AI, Bangalore.	Industrial Training Visits, Internship and placement of Students, Research and Development.
15	12-Apr-23	Easilitech, Bidar.	Career Skills.
16	13-Apr-24	TestHeapStack Software Solutions Pvt.Ltd.	Internship Program, Technical Workshops, Industrial training Skill development.
17	16-May-24	Seventh Sense Talent Solutions.	Training Program along with placement Assistance.
18	10-Nov-24	VIT Software Training and Development.	Technical Training Programs that enhance student's skills employability and industry readiness.
19	16-Jan-25	Friends Union for Energising Lives.	Industry and academia in the skill ecosystem.
20	20-Feb-25	CIEL SKILLS & CAREERS.	Student Placement Services.
21	11-Jun-25	HKE Societys Basaveshwar college of Education,Bidar.	Educational Development.
22	12-Jul-25	XCEL Corp (USA), Bangalore.	Industry Academia Partnership.
23	24-Aug-25	Karnataka State Council for Science and Technology (KSCST)	Academic, research, and innovation activities.
24	15-Oct-25	Bajaj Engineering Skills Training Centre.	Training Programs.
25	30-Dec-25	iPEC Solutions Pvt. Ltd., Bengaluru	Bridge Gap between academic learning and industry requirements
26	04-Feb-26	AQMATICS Inc	Research Collaboration, Application Development & Solutions, Intellectual Property Creation

9.4.4.3 Short-Term Training Program on Aptitude and Soft Skills

LAEC conducts a short-term training program on aptitude and soft skills to help students improve their basic problem-solving and communication abilities. The training includes topics like reasoning, quantitative aptitude, speaking skills, and personality development. It helps students become more confident and better prepared for interviews and campus placements

Table 9.4.4.3: Short-Term Training Program on Aptitude and Soft Skills.

Sl. No.	Training Area	Duration	Topics Covered	Resource Person
1	Aptitude Training	5 Days	Number System, Percentages, Time & Work, Profit & Loss, Ratio & Proportion, Basic Reasoning Concepts	Mr. Vivek VIT Software Training and Development
2	Soft Skills Training	5 Days	Communication Skills, Resume Writing, Group Discussion, Personal Interview, Time Management, Teamwork	Mr. Vadiraj Seventh Sense Talent Solutions.

9.4.4.4 Training Programs Conducted (2023-24 to 2025-26)

The institute has conducted several training programs during the academic years 2023-24 to 2025-26 to improve student's skills. These programs include soft skills development, aptitude and reasoning; resume writing, interview skills, and technical training like Power BI. Different trainers conducted these sessions, and students actively participated. These programs helped students become more confident and better prepared for placements.

Table: 9.4.4.4: Training Programs Conducted (2023-24 to 2025-26)

Academic Year	Training Program	Duration	Conducted By	Number of Students
2023-24	Soft skills development Program	5 Days	Mr. Aditya S M	30
2023-24	Pre-Placement Training Program	4 Days	Mr. Arpit Y Mr. Prakash N	30
2024-25	Aptitude & Reasoning Training	4 Days	Mr. Vivek	42
2024-25	Soft Skills & Communication	4 Days	Mr. Vadiraj	40
2024-25	Resume Writing & Interview Skills	4 Days	Mr. Vadiraj	45
2024-25	Power BI	15 Days	Mr. Imran	42
2025-26	Pre-Placement Training Program	6 Days	Mr. Vivek	42
2025-26	Soft Skills & Communication	3 Days	Mr. Vadiraj	40
2025-26	Resume Writing & Interview Skills	2 Days	Mr. Vadiraj	40

9.4.4.5 Year Wise Career statistics for last 3 years

The institution keeps record of career details for the last three years. It shows the number of placements, higher studies, and other career options. This helps to understand the overall progress.

Table 9.4.4.5: Year Wise Career statistics for last 3 years details.

Academic Year	2023-24	2024-25	2025-26
Total No. of Students	130	120	155

Total No. of Students Placed	42	50	39
Total No. of students got Higher Studies	02	03	00
Total No. of Entrepreneurs	00	00	00

9.4.4.6 Placement Offers (2023–24 to 2025–26)

The institution has received good placement offers across all departments from 2023–24 to 2025–26. Many students got jobs in different companies. This shows that the institution is helping students prepare well for their careers.

Department of Electronics and Communication Engineering

2023-24		
SL. NO	NAME OF RECRUITER	NO. OF OFFERS
1	GLOBAL QUEST TECHNOLOGIES	02
2	DEXLER ENERGY PVT. LTD.	01
3	FESTO INDIA PVT LTD	01
4	FI-MONEY	01
5	GG ENTERPRISES	01
6	TCSL	01
7	SYNTHLINX PRIVATE LIMITED	01

2024-25		
SLNO	NAME OF RECRUITER	NO. OF OFFERS
1	FOXCONN HON HAI TECHNOLOGY INDIA MEGA DEVELOPMENT PVT LTD	01
2	BAJAJ ENGINEERING SKILLS TRAINING	05
3	CODEWAVE	01
4	DIFACTO ROBOTICS AND AUTOMATION PVT.LTD	01
5	EMMVEE ENERGY PRIVATE LIMITED	01
6	SPINNY	01

2025-26

SL. NO	NAME OF RECRUITER	NO. OF OFFERS
01	VSTAND4U SOLUTION	02
02	GQT	01
03	Q SPIDER	01

Department of Computer Science and Engineering

2023-24		
SL. NO	NAME OF RECRUITER	NO. OF OFFERS
1	BROADRIDGE FINANCIAL SOLUTIONS	02
2	CAPGEMINI	01
3	CISCO SYSTEMS (INDIA) PRIVATE LIMITED	01
4	CODEGNAN	01
5	COGNIZANT PRIVATE LIMITED COMPANY BANGALORE	01
6	X-WORKS TECHNOLOGIES	04
7	PALLE TECHNOLOGIES	01
8	GLOBAL QUEST TECHNOLOGIES	09
9	TT STACK S/W SOLUTIONS PVT LTD	01

2024-25		
SL. NO	NAME OF RECRUITER	NO. OF OFFERS
1	ACCENTURE	01
2	COGNIZANT TECHNOLOGY SOLUTIONS INDIA PRIVATE LIMITED	01
3	GENPACT	01
4	GLOBAL QUEST TECHNOLOGIES	02
5	INSTRUKART HOLDINGS PVT LTD	01
6	ORACLE	01
7	PPK VIRTURE SERVICES PVT LTD	01
8	VSTAND4U SOLUTION	04

	Q SPIDER	02
10	TCL	01
11	WIPRO LIMITED	01
12	X-WORKZ BTM	01

2025-26		
SL. NO	NAME OF RECRUITER	NO. OF OFFERS
1	Q SPIDER	06
2	GLOBAL QUEST TECHNOLOGIES	04
3	VSTAND4U SOLUTION	02

Department of Civil Engineering

2023-24		
SL. NO	NAME OF RECRUITER	NO. OF OFFERS
1	MODERN SURFACE 360	01
2	AMBIT REALTORS AND DEVELOPERS	01
3	SARAS ENGG.& PROJECT PVT.LTD	01
4	RUPARAIL REALITY BUILDERS	01
5	PLATINA	01
6	BUILD A HOME,BANGLORE	01

2024-25		
SL. NO	NAME OF RECRUITER	NO. OF OFFERS

1	GOVT REVENUE DEPT	01
2	PROTO WEB	01
3	BRICK AND PLY	01
4	JOHNS SYSTEM LLP	01
5	AQUA SEAL TECH	01
6	PRAKASH GLASS	01
7	ULTRATECH	01

2025-26		
SL. NO	NAME OF RECRUITER	NO. OF OFFERS
1	AMIT CONSTRUCTION	01
2	AINI	01
3	IDEA NET SOLUTIONS	01
4	JM CONSTRUCTIONS SITE ENGINEER	01
5	VALUE LABS	01
6	SADANAND ENGG SOLUTIONS QUALITY ENGINEER	01
7	DEC	01
8	GNDEC	01
9	CELEBRITY DEVELOPERS	01
10	CONTRACTOR	01
11	KBDI	01
12	KOTARKI CONSTRUCTION	01

Department of Mechanical Engineering

2023-24		
SL. NO	NAME OF RECRUITER	NO. OF OFFERS
1	INNOVATIVE PACKAGING MACHINE	01
2	SANSERA ENGINEERING LIMITED	01

3	MOTILAL OSWAL WEALTH MANAGEMENT	01
4	RANE MADRAS PVT LTD	01

2024-25		
SL. NO	NAME OF RECRUITER	NO. OF OFFERS
1	PETROCON ENGINEERS & CONSULTANTS	01
2	NV5 ENGINEERING PVT LTD	01
3	MARUTI DESIGN & ENGG PVT LTD BENG	01
4	UNIMECH AEROSPACE ENGINEERING	01
5	VAYUCON SYSTEM PRIVATE LIMITED	01
6	HAKKE INDIA	01

2025-26		
SL. NO	NAME OF RECRUITER	NO. OF OFFERS
1	ALLWELD ENGINEERS PRIVATE LIMITED	08

Department of Electrical and Electronics Engineering

2023-24		
SL. NO	NAME OF RECRUITER	NO. OF OFFERS
1	AMAR RADIO CORPORTION	01
2	ARCEDO SYSTEM	01
3	WREXIM TECHNOLOGIES	01

2024-25		
SL. NO	NAME OF RECRUITER	NO. OF OFFERS
1	GOVERNMENT TOOL ROOM AND TRAINING CENTER (GTTC)	01
2	PRINCIPLE ACS ENGINEERING INDIA PVT LTD	01

3	GESCOM	01
4	BAJAJ ENGINEERING SKILLS TRAINING	04
5	SYRAMA SGS	01
6	MEPSTRA ENGINEERING & CONSULTANCY PVT. LTD.	01

2025-26		
SL NO	NAME OF RECRUITER	NO. OF OFFERS
1	GQT	02
3	VSTAND4U SOLUTION	01

Placement Offers for Electronics and Communication Engineering (2023-24 to 2025-26)

Ref No: 38054164
19-Nov-2025



Suriya Begum

Dear **Suriya**,

We have greatly enjoyed our recent discussions with you and are pleased to offer you the role of **PE-Maps** with **Cognizant Technology Solutions India Private Limited ("Cognizant")**. Your place of posting will be **Hyderabad**.

Your annual total compensation will be **INR 300,000**. Please see **Compensation and Benefits** for additional details on your compensation. Cognizant has considered **0 months** of your experience as relevant in this offer, which will be kept up-to-date in our records.

You will be on probation for a period of 12 months from your date of joining. Your probation period includes your training program as applicable post joining as a full-time employee.

Your appointment will be governed by the terms and conditions of employment presented in Employment Agreement, as well as any rules, regulations and practices currently in place at the time of employment.

We request that you join us on or before **21-Nov-2025**.

Please note:

- This offer is subject to satisfactory professional reference checks
- This offer is valid upto **21-Nov-2025**. Any extension shall be at the discretion of Cognizant and shall be communicated to you in writing
- Prior to beginning work with Cognizant, you must provide evidence of your right to work in India and other documentation requested by Cognizant

We are delighted to welcome you to the team! You are joining Cognizant at an exciting time, and we know your fresh thinking and expertise will help us accomplish great things.

If you have any further questions or need clarification on this offer, please feel free to contact us.

Best regards,
For **Cognizant Technology Solutions India Private Limited ("Cognizant")**,



Shibu Balakrishnan
AVP – HR

I have read the offer, understood and accept the above mentioned terms and conditions.

Signature: 

Date:21/11/2025



Enterprises

141, 'SINDHOORA' 2nd Floor, 7th 'C' Main, R.P.C. Layout, Hampinagar, Vijayanagar II Stage,
BENGALURU-560 104. E-mail : rjsassociates@yahoo.co.in, Mob : 99454 08048

Name : Mr.DAYANAND
S/O : BASAVARAJ
Address : Bangalore
ID Number : G&G/7613

Date:30-05-2025

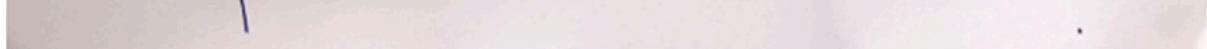
Appointment Letter

Dear M.: DAYANAND

We are pleased to appoint you in our organization as **Associate (GET)** subject to the following terms and conditions:

1. Your contract will commence from **01-06-2025** and expires on **31-01-2026** during which you will render Services to our client at their premises subject to the terms and conditions of the engagement letter executed by you on **30-05-2025** and in accordance to the instructions received by you from us or any other authorized person and will be bound by our rules and regulations.
2. You hereby agree to be liable for the following terms and conditions:
 - (a) Fully perform the services, in a professional manner at the client's location until the completion of the terms of the work assignment.
 - (b) During the term of the work assignment, render services exclusively to the client and such performance shall not be inconsistent with any obligation you may have to other third parties.
 - (c) Not engage in any conduct which is detrimental to the interest of the client or G&G Enterprises.
 - (d) Not receive any payments of any nature directly or indirectly from the client unless agreed to by G&G Enterprises.
 - (e) Neither directly nor indirectly offers you for employment with the client or its affiliates during the period of work assignment without prior permission of G&G Enterprises.
 - (f) Extend all cooperation to the client's employees, consultants, representatives, etc., and do all such things as may be necessary and comply with all terms of the appointment letter so as to effectively undertake the work.
 - (g) Report and be present at the designated location during the working hours mentioned here in and abide by the rules and regulations as required by the client.
 - (h) Comply with the safety, health and other rules and regulations of G&G Enterprises and the G&G Enterprises client that you have been made aware of.
 - (i) During the course of your contract, you can be transferred to a location within the territory of India as and when required by G&G Enterprises for executing the services provided herein.

Mahesh



To,
Akshata Biradar

Subject: Employment Confirmation

Dear Akshata Biradar,

We are pleased to inform you that, following the successful completion of your probationary period, your employment with Synthlinx Private Limited is hereby confirmed effective from 01/01/2025.

We appreciate your contributions thus far and are confident that you will continue to add value to the team in your confirmed role as AI Engineer

We look forward to your continued dedication and success with Synthlinx. Sincerely,



Shilpa HS
HR Manager

Placement Offers for Computer Science and Engineering (2023-24 to 2025-26)



Cisco Systems (India) Private Limited
SEZ Unit, Cessna Business
Park,
Kadubeesanahalli Village Varthur Hobli,
Sarjapur Marathalli Outer Ring Road,
Bengaluru 560103, Karnataka, India
CIN: U31909KA1995PTC019505
Tel: +91-80-44260000
Email: indiaca@cisco.com
www.cisco.com/in

Dear **Vani**

Congratulations on your offer to join Cisco.

At Cisco, our commitment is to drive the most trusted customer experience in the industry, through our innovation, choice, and extraordinary people. We have a unique opportunity to build a better, more equitable, and inclusive future for everyone.

Day to day, we make a meaningful difference for our people, our customers, and the world around us. We support each other and work together to create shared success that will benefit everyone. As we bring our talents and ideas together, we hope you will join us as we work to empower an inclusive future for all.

We're offering you a position as a(n) **India Technical Apprentice**, Grade **002** in **123 - Cisco Systems (India) Private Limited** as per Apprentices Act in line with the National Apprenticeship Training Scheme (NATS).

When you'll start?

Your Apprenticeship Training will commence from **20-Aug-2025** (Start Date).

What Happens Next?

Please let us know your response to this offer by **11-Jul-2025** by either accepting this offer or contacting your recruiter or me to discuss.

If you accept the offer, you'll get access to our hiring portal, "My Documents Space" where you'll find more about what you need to get started on your Cisco career journey, including an overview of the benefits that are offered to our employees in India.

Get in touch if you have any questions. Reach out to me personally, or your recruiter, who is also a great source of information. It's been a pleasure getting to know you, **Vani**. I look forward to having you on our team!

Welcome to Cisco!

Rashmi Rajesh Musam | murajesh@cisco.com
CXA India Emerging Talent Leader

Date:25-08-2025

Employee Code :H198996
Name :**Lalitikumar Babanavar**
Location :**BANGALORE**

LETTER OF EMPLOYMENT

Dear Lalitikumar Babanavar

We, Adecco India Private Limited "Adecco" are pleased to offer you an employment with our organization as **Application Developer I** for a fixed period of employment ("Contract"), on the following terms, conditions and understanding that:

1. Your appointment is effective from the date of joining i.e **25-08-2025** and the term of your employment is valid up to **24-08-2026** unless renewed or terminated in writing by Adecco, as stipulated under the standard terms appended to this Contract.
2. You will be deployed at Adecco or its client's premises and you shall report to work on **25-08-2025** at 9.00 a.m. at **ORACLE INDIA PRIVATE LIMITED.**
3. Adecco may transfer you in any such capacity as deemed appropriate from time to time, at the instance of its clients or otherwise. In such event, you will be governed by the terms and conditions of service applicable to the new assignment or client. Notwithstanding anything mentioned in section 1 of this letter of employment, in the event of the project/work/deputation for which you are being employed terminates before the aforementioned period, this Contract shall be co-terminus with the project/work.
4. This Letter of Employment is subject to your successful completion of all requirements including BGV, training etc., as stipulated by Adecco or its clients from time to time.
5. Details of your remuneration/salary break up with components are enumerated as per the enclosure attached herewith.
6. Your appointment is for a specific period as stated above and no notice or pay in lieu thereof or retrenchment compensation will be payable to you at the end of the Contract tenure.
7. You will, with effect from 25-08-2025 be deputed by Adecco to work at the client's office/ premises at any of client's existing or new locations (either onsite or offshore). Should there be a change in the reporting location, you will be notified of the same at least a day in advance.
8. You are required to comply with the code of conduct or related policies of Adecco and the Client "Code of Conduct" where you will be deployed. You will be governed by the policies of the client's organization with respect to leaves, holidays and other establishment related policies. Adecco's code of conduct could be found at: <https://www.adeccogroup.com/our-group/about-us/code-of-conduct/>
9. In addition, to the terms of appointment mentioned above, you are also governed by the standard employment rules of Adecco, which are attached along with this letter. The combined rules and procedures as contained in this letter and the annexure will constitute the standard employment rules and you are required to read both of them in conjunction. Your net/gross salary /CTC reimbursement amount, if any, shall be credited to your savings bank account.
10. You are required to sign and share a signed copy of this Letter of employment as acknowledgment and acceptance to the terms herein, either physically or digitally as recommended by Adecco from time to time. These terms and conditions would be deemed accepted /acknowledged in case we do not receive your response within 15 days from the date of issue of this letter.

Adecco India Private Limited

73/1, 13th Floor, Summit B, Brigade Metropolis, Garudachar Palya,
Mahadevapura, Whitefield Main Road, Bengaluru - 560 048, India.

Tel: +91 80 - 68407000 | Adecco.co.in | CIN: U72900KA1999PTC051999



07-Jan-2026

Dear **Basavakiran Bandi**,
B.E., Computer Science & Engineering
Lingaraj Appa Engineering College, Bidar

Candidate ID – 39821727

Thank you for exploring career opportunities with **Cognizant Technology Solutions India Private Limited ("Cognizant")**. You have successfully cleared our initial selection process and we are pleased to make you an offer of employment. This offer is based on your profile and performance in the selection process.

You have been selected for the position of **Engineer Trainee**.

During your probation period of 12 months which includes your training program as applicable post joining as a full-time employee, you will be entitled to an Annual Total Remuneration (ATR) of **INR 401,988/-**. This includes an annual target incentive of **INR 22,500/-** as well as Cognizant's contribution of **INR 19,500/-** towards benefits such as Medical, Accident and Life Insurance. The incentive amount may vary, depending on Cognizant's performance and your performance. The other details about your compensation are detailed in **Compensation and Benefits Annexure**. Your compensation is highly confidential and if the need arises, you may discuss it only with your manager.

On successful completion of the probation period, clearing the required training assessments and subject to you being part of a delivery project, your Annual Total Remuneration (ATR) would stand revised to **INR 450,500/-**. This includes an annual target incentive of **INR 22,500/-** as well as Cognizant's contribution of **INR 19,500/-** towards benefits such as Medical, Accident and Life Insurance, as applicable.

Your appointment will be governed by the terms and conditions of employment as presented in **Employment Agreement Annexure**. You will also be governed by the other rules, regulations, and practices in vogue and those that may change from time to time.

This offer of employment is subject to your fulfilment of other pre-requirements as detailed in this letter.

Please note:

1. This appointment is subject to satisfactory background verification including professional reference checks and you securing a minimum of **60%** aggregate (all subjects taken into consideration) in 10th, 12th Diploma and Graduation/Post-Graduation and with no standing arrears in your Graduation/Post-Graduation.

This offer from Cognizant is valid for only **2 days** and hence you are expected to accept or decline the offer through the company's online portal within this time-period. In case you do not accept or decline within this time-period in the system, this Offer shall stand withdrawn and will be considered as void. Any extension to the offer validity will be at the sole discretion of Cognizant.

2. Prior to commencing employment with Cognizant, you must provide Cognizant with evidence of your right to work in India and other such documents as Cognizant may request.

3. Training - Post Joining Cognizant:

Post joining at Cognizant as full-time employee, one of the below options would be followed based on

Cognizant Technology Solutions India Private Limited, Ground Floor, SDB-1, Plot No H-4, SIPCOT IT
PARK, Padur Post, Siruseri, Chengalpattu District - 603103, Tamil Nadu, India.

Placement Offers for Electrical and Electronics Engineering (2023-24 to 2025-26)



OFFER LETTER

Offer Ref No 002/06/10/2037

Date: 10-June-25

Dear Mr. Ravi,,

Thank you for the keen interest you have shown to join our organization. Consequent to your application, interviews, and subsequent discussions you had with us we are pleased to offer you a career at Principle ACS Engineering India Pvt Ltd.

You will be designated as **Junior Engineer** and will be based at **Karnataka** and upon requirement you are required to do your service on other places too.

Your total fixed compensation / performance linked compensation (inclusive of all other pay) will be Rs.**2,41,668**/-pa CTC. Detailed breakdown of your salary is enclosed **Annexure-1**. You will be on probation for a period of one year from date of joining. Your performance will be reviewed and employment confirmed at the end of probation period.

All other terms and conditions of your employment will be as per your appointment order and company policies in vogue.

Please report to **Bangalore** Office at 10:30 am on or before **16 June'25** for joining and forward soft / hard copies of following documents to our Head Office for issue of Appointment letter. You will also be required to bring originals at the time of joining.

- a) SSLC/10std marks card.
- b) All semester mark sheets of PG/ Degree/Diploma Course and Provisional / Degree Certificate.
- c) Previous company relieving letter & copy of your previous resignation.
- d) Address proof-voter ID card, Driving license, Aadhar card, Passport, Pan Card.

Address for reporting: **Mr. Pravesh Kumar, Principle ACS Engineering India Pvt Ltd,**
SVM Nilaya , 1st Floor Above Sheetal Jewellers, Dasarahalli, 1st main Road Behind Dasarahalli Metro Station Bangalore - 560057

If you have queries on any of the above, please mail pravesh.jaiswal@principleacs.com or contact **+91 9926086398**

Principle ACS Engineering India Pvt. Ltd.,

**I have read the contents of this letter
and accept the offer for employment**

Authorized Signatory

Sign: _____

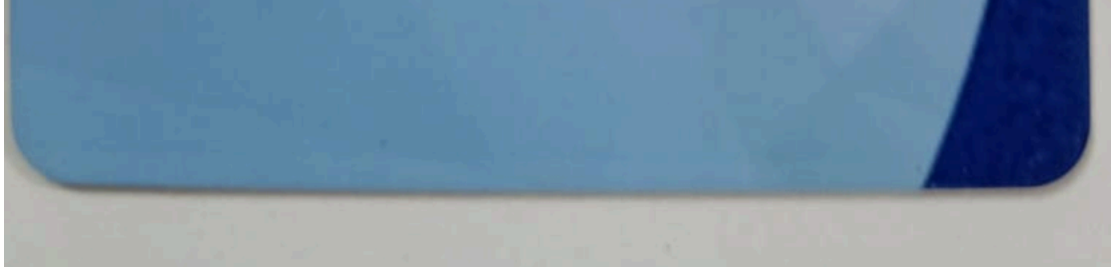
MINE



AKSHAY SHIVMURTHY

Full stack developer

Employee ID: MD1062342



9.4.4.7 DEPARTMENT AND YEAR-WISE PLACEMENT DETAILS OF STUDENTS

Table 9.4.4.7 Year-wise Placement Details of ECE Students with Company Name and Designation.

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Sl. NO.	USN	Name	Year of Passing	Company	Designation
1	3LA12EC010	Mahesh	2015-16	EMPOWER	Spec RSG
2	3LA12EC014	Nageshwari K	2015-16	Cognizant Technology Solutions India Private Limited	Associate- Projects
3	3LA12EC019	Poojashree	2015-16	Accenture	Packaged App Development Senior Analyst

4	3LA13EC401	Ganpati	2015-16	Quest Global	Lead Engineer
5	3LA13EC002	AMAR BIRADAR	2017-18	Jasan Automation PVT LTD	MES Engineer
6	3LA13EC001	AKASH	2017-18	LTIMindtree	Senior Software Engineer
7	3LA11EC011	OMPRAKASH	2017-18	CGI Information Systems and Management Consultants Pvt. Ltd.	Associate Software Engineer
8	3LA14EC402	PRAVEENKUMAR	2017-18	A V TELECOM PVT. LTD.	Office Executive
9	3LA15EC017	VIJAYLAXMI	2018-19	TCSL	Assistant System Engineer-Trainee
10	3LA16EC003	BHAVANI VISHWAKARMA	2019-20	BDO RISE PRIVATE LIMITED	Tax Experienced Associate
11	3LA15EC007	NARASAMMA	2019-20	Accenture	Quality Engineering Associate
12	3LA15EC010	POOJARANI	2019-20	IDrive Software India Pvt Ltd	Software Test Engineer
13	3LA16EC002	ASHWINI DANA	2019-20	Phoenix	Software Engineer
14	3LA16EC007	RUBY GRACIA	2019-20	Genesys Telecom Labs India Pvt Ltd.	Product Support Engineer
15	3LA16EC400	AMBIKA	2019-20	Trianz Digital Consulting Pvt. Ltd	Software Engineer Trainee (Grade-A)
16	3LA17EC006	MATH CHANNABASAVA	2020-21	Cognizant Technology Solutions India Private Limited	Programmer Analyst Trainee
17	3LA17EC005	MADHU	2020-21	Mirafra Technologies	Senior Design Engineer
18	3LA17EC002	BHUVANESHWARI KAMASHETTY	2020-21	NTT DATA Global Delivery Services Private Limited	Information Technology Senior Associate
19	3LA16EC008	SAPNA	2020-21	COGNITIA TECH SOLUTIONS Pvt Ltd.	Software Engineer
20	3LA18EC004	SHAMALA	2021-22	TADA Mobility (India) Pte Ltd	Quality Assurance Engineer
21	3LA18EC001	PARVATI	2021-22	Yuto Printing Packaging Private Limited	Sales Support Trainee
22	3LA19EC005	SURIYA BEGUM	2022-23	Cognizant Technology Solutions India Private Limited	PE-Maps
23	3LA19EC001	ABHISHEK	2022-23	AdBliss Digital Media LLP	Full Stack Developer
24	3LA20EC002	ASHWINI	2023-24	Global Quest Technologies	Graduate engineeringtrainee
25	3LA20EC003	DAYANAND	2023-24	GG Enterprises	GET
26	3LA20EC001	AKSHATA	2023-24	Synthlinx Private Limited	AI Engineer
27	3LA20EC006	SHIVANI METRE	2023-24	Global Quest Technologies	Graduate engineeringtrainee
28	3LA20EC004	MADHUKESHAV	2023-24	TCSL	Assistant System Engineer-Trainee
29	3LA20EC005	NAGARAJ	2023-24	Festo India Pvt Ltd	Graduate Engineering Trainee
30	3LA21EC400	RAVIKIRAN	2023-24	Dexler Energy Pvt. Ltd.	Jr. Engineer
31	3LA20EC008	SHRISHAIL	2023-24	Fi-Money	Intern- Data Science
32	3LA21EC001	ADINATH	2024-25	Bajaj Engineering Skills Training	Graduate engineering trainee

33	3LA21EC006	Divya	2024-25	Bajaj Engineering Skills Training	Graduate engineering trainee
34	3LA21EC008	K Vaishnavi	2024-25	Bajaj Engineering Skills Training	Graduate engineering trainee
35	3LA21EC019	PRIYANKA	2024-25	FOXCONN HON HAI TECHNOLOGY INDIA MEGA DEVELOPMENT PVT LTD	Trainee
36	3LA21EC020	RANJEETA	2024-25	DiFacto Robotics and Automation Pvt.Ltd	Graduate Engineering Trainee
37	3LA21EC024	Sanjana	2024-25	Bajaj Engineering Skills Training	Graduate engineering trainee
38	3LA21EC027	SUBHASH	2024-25	Spinny	Operations Analyst
39	3LA21EC028	sudhakar	2024-25	Bajaj Engineering Skills Training	Graduate engineering trainee
40	3LA21EC030	SUSHMA REDDY	2024-25	Emmvee Energy Private Limited	Trainee
41	3LA22EC404	PRASHANT D	2024-25	Codewave	Software Developer
42	3LA22EC042	Pranav Suryawanshi	2025-26	Qspider	Trainee
43	3LA22EC041	SURYA PRAKASH	2025-26	Vstand4U Solutions	Trainee
44	3LA22EC034	SHRADHA	2025-26	Vstand4U Solutions	Trainee
45	3LA22EC009	ANJLI	2025-26	Global Quest Technologies	Trainee

Table 9.4.4.7 .1Year-wise Placement Details of CSE Students with Company Name and Designation.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Sl. NO.	USN	Name	Year of Passing	Company	Designation
1	3LA20CS003	AMBIKA MALEDODDI	2023-24	GQT	Trainee
2	3LA20CS004	ANKITA	2023-24	Palle Technologies	Trainee
3	3LA20CS005	ARUNDATI PATIL	2023-24	GQT	Trainee
4	3LA20CS006	Azra Fatima	2023-24	Cognizant private limited company bangalore	Fraud analyst
5	3LA20CS008	Gadila Nikhil Reddy	2023-24	GQT	Trainee
6	3LA20CS012	Kavya kore	2023-24	Broadridge Financial Solutions	Software Engineer
7	3LA20CS014	MAVIYA FIRDOZ	2023-24	X-WORKS TECHNOLOGIES	Trainee
8	3LA20CS017	MOHAMMED ASIM UDDIN	2023-24	X-WORKS TECHNOLOGIES	Trainee
9	3LA20CS019	NIKHITA	2023-24	GQT	Trainee
10	3LA20CS020	PRIYANKA	2023-24	Broadridge Financial Solutions	Testing
11	3LA20CS022	ROUF KHAN	2023-24	CODEGNAN	Trainee
12	3LA20CS023	RATNASHREE PATIL	2023-24	GQT	Trainee
13	3LA20CS024	REKHA G	2023-24	GQT	Trainee
14	3LA20CS029	SHAIK ABBUBAKAR	2023-24	X-WORKS TECHNOLOGIES	Trainee
15	3LA20CS031	SHREYA K	2023-24	Capgemini	Software engineer
16	3LA20CS032	SHUBHANGINI AMLAPURE	2023-24	TESTHEAPSTACK SOFTWARE SOLUTIONS PVT.LTD	Trainee
17	3LA20CS036	SYEDA AASMA FATIMA	2023-24	X-WORKS TECHNOLOGIES	Trainee
18	3LA20CS038	VACHANASHREE	2023-24	GQT	Trainee
19	3LA20CS039	VAISHNAVI B	2023-24	GQT	Trainee
20	3LA20CS040	VAISHNAVI THAKUR	2023-24	GQT	Trainee
21	3LA20CS041	VANI HANAMSHETTY	2023-24	Cisco Systems (India) Private Limited	Technical Consultanting Engineer Trainee

22	3LA21CS002	Abhishek	2024-25	X-Workz BTM	Trainee
23	3LA21CS006	Ambika	2024-25	Vstand4U Solutions	Trainee
24	3LA21CS010	Basavakiran Bandi	2024-25	Cognizant Technology Solutions India Private Limited	Engineer Trainee
25	3LA21CS014	Harish Manure	2024-25	PPK Virture Services PVT Ltd	Intern Consultant
26	3LA21CS015	Jubre Nirmala	2024-25	Instrukart Holdings Pvt ltd	Digital marketing trainee
27	3LA21CS016	Keerthi	2024-25	Vstand4U Solutions	Trainee
28	3LA21CS018	Lalitikumar Babanavar	2024-25	Oracle	Application Development
29	3LA21CS032	Parameshwar	2024-25	Tej FinTech Smart Financial Infrastructure	Chief Operating Officer
30	3LA21CS041	Shaik Mukhit Patel	2024-25	TCL	Lead managing
32	3LA21CS042	Shaikh Heena Parveen	2024-25	Vstand4U Solutions	Trainee
33	3LA21CS043	Shivraj S Panchikatti	2024-25	Qspider	Trainee
34	3LA21CS044	Shradha	2024-25	Vstand4U Solutions	Trainee
35	3LA21CS047	Supreet Patil	2024-25	Genpact	Process Associate
36	3LA21CS048	Suraj Patil	2024-25	Wipro Limited	Cloud Infrastructure
37	3LA21CS053	Syed Zeeshan	2024-25	Accenture	Associate Engineer
38	3LA21CS054	Tapshale Janardan Narhari	2024-25	GQT	Trainee
39	3LA21CS055	Vidyasagar Jamadar	2024-25	Qspider	Trainee
40	3LA21CS057	Vishnukanth	2024-25	GQT	Trainee
41	3LA22CS001	Abdul Kareem Khan	2025-26	Vstand4U Solutions	Trainee
42	3LA22CS004	Anamika	2025-26	GQT	Trainee
43	3LA22CS015	Harish Patil	2025-26	GQT	Trainee
44	3LA22CS017	Krishna	2025-26	Vstand4U Solutions	Trainee
45	3LA22CS022	Md Khustar Ahmed	2025-26	Qspider	Trainee
46	3LA22CS027	Misba Anam	2025-26	Qspider	Trainee
47	3LA22CS028	Mohmmed Aafzanuddin	2025-26	Qspider	Trainee

48	3LA22CS030	Mohd Rehan	2025-26	Qspider	Trainee
49	3LA22CS032	Nilambika	2025-26	GQT	Trainee
50	3LA22CS034	Priya Mulge	2025-26	Qspider	Trainee
51	3LA22CS040	Sanjana	2025-26	Qspider	Trainee
52	3LA22CS050	Supriya Rajkumar Kollure	2025-26	GQT	Trainee

Table 9.4.4.7.2 Year Year-wise Placement Details of EEE Students with Company Name and Designation.

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING					
Sl. NO.	USN	Name	Year of Passing	Company	Designation
1	3LA18EE002	Sowmyashree	2021-22	Fox Solutions Pvt.ltd	Dot net developer
2	3LA19EE400	Pradeep	2021-22	Microlabs Ltd	Assistant Manager
3	3LA19EE401	Shivkumar kore	2021-22	Teclever Solutions Private limited...	Software developer
4	3LA19EE002	Akshay Shivamurthy	2021-22	Merr'ys Infotech & New-Gen Educare (MINE-IT)	Full Stack Developer
5	3LA19EE004	Kapil	2021-22	Eureka Forbes Ltd	Engineer
6	3LA19EE006	Sachin	2021-22	Bharat fritz warner	Service Engineer
7	3LA19EE008	Veeresh	2021-22	Ideaaz Automation Private Limited	Application Engineer
8	3LA20EE001	Prasad	2023-24	Amar radio corportion	Product support Associate
9	3LA20EE002	Vedant	2023-24	Arcedo system	Graduate engineer trainee
10	3LA21EE400	Ambika	2023-24	Wrexim technologies	Technical consultant
11	3LA21EE003	Keerti	2024-25	Government tool room and training center (GTTC)	Skill development training center(lecture)
12	3LA21EE008	Ravi	2024-25	Principle ACS Engineering India pvt Ltd	Junior Engineer
13	3LA21EE010	Sandeep	2024-25	GESCOM	Junior Assistant
14	3LA21EE014	Swathi	2024-25	Bajaj Engineering Skills Training	Graduate engineering trainee
15	3LA21EE016	Udayakumar	2024-25	Syrama SGS	Quality Engineer
16	3LA22EE400	Govind Paragond	2024-25	Mepstra Engineering & Consultancy Pvt. Ltd.	Electrical Engineer (Switchgear & Control Panels)
17	3LA21EE006	Poojashree	2024-25	Bajaj Engineering Skills Training	Graduate engineering trainee
18	3LA21EE009	Revansiddh	2024-25	Bajaj Engineering Skills Training	Graduate engineering trainee
19	3LA21EE013	sunilkumar	2024-25	Bajaj Engineering Skills Training	Graduate engineering trainee

20	3LA22EE022	Sudharani	2024-25	Global Quest Technologies	Graduate engineering trainee
21	3LA23EE411	SK Feroze	2025-26	Global Quest Technologies	Graduate engineering trainee

9.5 Start-up and Entrepreneurship Activities (5)

9.5 Start-up and Entrepreneurship Activities

The **Entrepreneurship Development Cell (EDC)** at **Lingaraj Appa Engineering College, Bidar** is established to encourage, inspire, and nurture young students by supporting them in working on innovative ideas and transforming them into viable prototypes. The cell focuses on developing and strengthening entrepreneurial qualities among students who aspire to start their own ventures.

The EDC actively motivates, supports, and mentors students in identifying, developing, and commercializing their ideas. It provides a platform for students to explore entrepreneurship as a career option and equips them with the necessary skills and resources.

The EDC at the institution provides infrastructure and technical support to students with innovative ideas, enabling them to convert these ideas into products and services that contribute to societal development.

Objectives

- To nurture an innovative, entrepreneurial, and start-up mindset through various activities.
- To identify and transform ideas into products addressing societal and rural challenges.
- To promote design-thinking skills and develop a strong start-up ecosystem.
- To conduct collaborative activities with relevant agencies.

Table 9.5.1: Facilities Available at the Institute

Facility	Description
Business Mentorship	Expert guidance on business planning, market research, and scaling
Training Programs	Workshops, boot camps, and expert-led entrepreneurship sessions
Networking	Opportunities to connect with start-up founders, investors, and industry leaders
Industry Exposure	Start-up visits, industrial tours, and hands-on experiences
Center of Excellence	AI & ML Lab, STEM, IIOT, Robotics, DRONE

Table 9.5.2: Entrepreneurship Development Cell – Committee

Sl. No	Name & Designation	Role
1	Dr. Vinita. Patil Principal Lingaraj Appa Engineering College, Bidar.	Chairperson
2	Prof. Sahana.Patil, Asst. Prof, Dept. of MBA	Member Convener
3	Prof. Archana, Asst. Prof., Dept. of EEE	Member
4	Prof. Neha.M, Asst. Prof., Dept. of CSE	Member
6	Prof.Rajkumar.Patil, Asst. Prof., Dept. of Civil Engg.	Member
7	Prof. Jagadeshkumar D, Asst. Prof., Dept. of Mechanical Engg.	Member
8	Prof. Vijayalaxmi W, Asst. Prof., Dept. of ECE	Member
9	Mr. Rakesh Marturkar, CEO, GN JERBI Foundation	External Member

Sl. No	Name & Designation	Role
10	Ms. Anjali k, Dept. of ECE	Student Member
11	Ms.Vaishanvi, Dept. of Civil Engg.	Student Member
12	Ms. Aishwarya , Dept. of EEE	Student Member

Table 9.5.3: Details of activity conducted under EDC

Section	Details Provided in
Entrepreneurship Development	9.5.1
Innovation & Incubation	9.5.2
Student Startups	9.5.3
Industry Collaboration	9.5.4
Institution's Innovation Council (IIC)	9.5.5

9.5.1 Entrepreneurship Development

As part of continuous professional development, the students attended and successfully completed a **Management Development Programme (MDP)** organized by the Entrepreneurship Development Institute of India (EDII), Ahmedabad, , from 20.02.2023 to 27.02.2023 sponsored by the Ministry of MSME, Government of India, contributing to improve students entrepreneurial skills.



Figure 9.5.1 : Students certificate copy

9.5.2 Innovation & Incubation

Report on Incubation Awareness Workshop

Organized under RAMP – District Industries Centre, Bidar Date: 25/09/2025

Venue: Lingaraj Appa Engineering College, Bidar

Introduction

An Incubation Awareness Workshop was successfully organized under the RAMP initiative by the District Industries Centre, Bidar at Lingaraj Appa Engineering College, Bidar. The program aimed to create awareness among students, entrepreneurs, startups and MSMEs about the importance of incubation and the opportunities available to support innovative ideas and business growth.

Objectives of the Program

The key objectives of the workshop were:

- To introduce the concept and benefits of business incubation
- To guide innovators on transforming ideas into viable enterprises
- To provide insights on government schemes, funding opportunities and mentorship
- To promote innovation, technology adoption and entrepreneurship among youth
- To connect participants with incubation centers and ecosystem support

Program Highlights

1. Inaugural Session:

The program commenced with registration followed by the inaugural session at 11:30 AM.

Dr. Vinita Patil, Principal of Lingaraj Appa Engineering College, welcomed the gathering and highlighted the importance of innovation and entrepreneurship in today's competitive world.

2. Keynote Address:

Mr. Rakesh Marturkar, CEO, GN JERBI Foundation NIDHI DST ITBI Center, Bidar delivered the keynote address.

He elaborated on:

- The role of incubation centers in nurturing startups
- Available infrastructure, mentorship and funding support
- Opportunities for students and innovators to convert ideas into startups

3. Session by Banking Sector Representative:

Mr. Satish Kumar, Lead Bank Branch Manager, addressed the participants and emphasized the importance of financial support systems for startups and MSMEs.

He provided valuable insights on:

- i. Access to bank loans and credit facilities for startups
- ii. Financial planning and management for new ventures
- iii. Role of banking institutions in supporting entrepreneurship and MSME growth

His session helped participants understand how to effectively leverage banking support for scaling their business ideas.

4. Technical Session on Innovation & IPR:

Dr. Vivek Jaladi, Head of Department, CSE, delivered an insightful session on innovation and intellectual property rights.

He explained:

- i. Idea validation and innovation strategies
- ii. Importance of protecting intellectual property
- iii. Commercialization of innovative ideas

5. Session on Government Schemes:

Ms. Surekha Manoli, Joint Director, District Industries Centre, Bidar discussed various government schemes.

She highlighted:

- i. MSME and RAMP scheme benefits
- ii. Financial assistance and subsidies
- iii. Procedures for availing government support

6. Entrepreneurial Journey Session

Mr. Sachchidanand Swamy Chidre, Managing Director, Hi Ideals Technologies Pvt. Ltd., shared his entrepreneurial journey.

- i. He inspired participants by discussing:
- ii. Real-world challenges and solutions
- iii. Startup growth strategies
- iv. Importance of persistence and innovation

7. Outcomes of the Workshop

- Enhanced awareness about incubation and startup ecosystem
- Improved understanding of funding, mentorship and government support
- Encouraged students and entrepreneurs to pursue innovative ideas
- Strengthened collaboration between institutions, industry and government bodies

8. Conclusion

The Incubation Awareness Workshop concluded successfully with active participation from students, entrepreneurs and MSMEs. The program served as an effective platform to bridge the gap between innovators and incubation support systems.

Participants showed keen interest in exploring incubation opportunities and engaging with organizations like GN JERBI Foundation for further guidance and support in their entrepreneurial journey.



Figure 9.5.2: Dignitaries lighting the lamp to mark the auspicious beginning of the program



Figure 9.5.3: Inaugural Address by Dr. Vinita Patil, Principal, Lingarajappa Engineering College, Bidar



Figure 9.5.4: Ms. Surekha Manoli interacting with participants on government initiatives and schemes.

9.5.3 Student Startups

The institution actively promotes innovation and entrepreneurship among students through participation in national-level events. In this regard, students successfully participated in the **Startup Mela 2.0 at UDHGAM 2.0**, organized in collaboration with Woxsen University on 3rd February 2026. The event provided a dynamic platform for students to present startup ideas, prototypes, and innovative business models, fostering creativity, problem-solving abilities, and entrepreneurial thinking. Notably, the student team secured the **Second Prize in the Startup Idea Competition**, demonstrating excellence and innovation. Participation certificates were awarded in recognition of their active involvement and outstanding performance.

Furthermore, the event facilitated experiential learning through direct interaction with experts, mentors, and industry professionals. Students engaged in idea pitching sessions, expert evaluations, and collaborative discussions, which enhanced their communication, teamwork, and critical thinking skills..



Figure 9.5.5: Presentation of Idea



Figure 9.5.6: Participation Certificate



Figure 9.5.7: Receiving 2nd Prize

Syed Shoaib Akhtar demonstrated exceptional technical and presentation skills by securing **Second Prize** in the "Pitch Pulse" event. This achievement took place at the National Level Tech Fest, "PRAVRUTTI," hosted by **M S Ramaiah University of Applied Sciences (MSRUAS)**, Bengaluru, held from October 15th to 17th, 2025. This recognition underscores the students ability to compete effectively at a national scale and highlights their proficiency in innovative pitching and technical communication.



Figure 9.5.8: Receiving 2nd Prize & Certificate

9.5.4 Industry Collaboration

The institution has established strong **industry collaboration** through a Memorandum of Understanding (MoU) with **many organization/company**. This collaboration aims to enhance students' employability, career readiness, and industry exposure by bridging the gap between academic learning and industry expectations. Through this partnership, various activities such as skill development programs, career guidance sessions, internships, and placement support are facilitated for students of the institution.



सत्यमेव जयते

INDIA NON JUDICIAL

Government of Karnataka

Rs. 100

e-Stamp

Certificate No. : IN-KA73128522141687W
Certificate Issued Date : 30-Jul-2024 10:44 AM
Account Reference : NONACC (FI)/ kacrsf08/ BIDAR10/ KA-BD
Unique Doc. Reference : SUBIN-KAKACRSFL0899555252192662W
Purchased by : LINGARAJ APPA ENGINEERING COLLEGE BIDAR
Description of Document : Article 12(a) Bond - Amount secured does not exceed Rs.1000
Property Description : MEMORANDUM OF UNDERSTANDING
Consideration Price (Rs.) : 100
(One Hundred only)
First Party : LINGARAJ APPA ENGINEERING COLLEGE BIDAR
Second Party : GN JERBI FOUNDATION BIDAR
Stamp Duty Paid By : LINGARAJ APPA ENGINEERING COLLEGE BIDAR
Stamp Duty Amount(Rs.) : 100
(One Hundred only)

सत्यमेव जयते



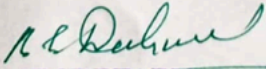
Please write or type below this line

Memorandum of Understanding (MOU)

This Memorandum of Understanding (MOU) is made and entered into as of 30-07-2024 by

and between:

Lingaraj Appa Engineering College, a Educational Institution with its principal place of business at Gornalli, Bidar, Karnataka 585403, hereinafter referred to as "LAEC" and



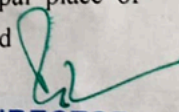
SECRETARY

Sharnbasaveshwar Vidya

Yardhak Sanah, Gulhale

Statutory Alert:

1. The authenticity of the Stamp can be verified on 'www.shcilestamp.com' or using e-Stamp Mobile App. Any discrepancy in the details on this Certificate and as available on the website / Mobile App renders it invalid.
2. The onus of checking the legitimacy is on the users of the certificate.
3. In case of any discrepancy please inform the Competent Authority.



DIRECTOR

Guru Nanak Jhira

**Entrepreneurship Research &
Business Incubation Foundation,**

BIDAR

KARNATAKA GOVERNMENT, BIDAR

Guru Nanak Jhira Entrepreneurship Research and Business Incubation Foundation, a Section 8 Company registered under the Companies Act, 2013, with its registered office at Guru Nanak Dev Engineering College, Mailoor Road, Bidar hereinafter referred to as "GN JERBI FOUNDATION" collectively referred to as the "Parties"

1. PURPOSE

1.1 The purpose of this MoU is to establish a collaborative framework for Co-Incubation activities between LAEC and GN JERBI Foundation. This collaboration aims to foster innovation, entrepreneurship and startup creation in association with GN JERBI Foundation NIDHI DST iTBI Centre aligning with the objectives and guidelines of the Inclusive Technology Business Incubator (i-TBI) initiative supported by the Department of Science & Technology (DST), Government of India.

1.2. Both Parties desire to collaborate on a co-incubation program to support startups in the field of IT/ICT, Dairy Tech, Agri Tech, Waste Management and many sustainable/scalable innovative ideas.

2. OBJECTIVES:

- i. To promote a culture of innovation and entrepreneurship among students, faculties and nearby communities.
- ii. To support the conversion of innovative ideas into prototypes and subsequently into startups.
- iii. To build a vibrant innovation ecosystem by leveraging the strengths and resources of both institutions.

3. Scope of Collaboration

3.1. **Joint Incubation Program:** The Parties agree to jointly establish and operate a co-incubation program, ensuring that the activities are in line with GN JERBI Foundation Incubation Policy.

3.2. **Shared Resources:** The Parties will share resources, including infrastructure, mentorship, expertise and networks.

H. S. Dohun
SECRETARY
Sharnbasaveshwar Vidya
Vardhak Sangh, Gulbarga

[Signature]
DIRECTOR
Guru Nanak Jhira
Entrepreneurship Research &
Business Incubation Foundation,
BIDAR

3.3. **Start-up Selection:** The Parties will jointly develop criteria for selecting startups to participate in the co-incubation program, prioritizing those that align with GN JERBI Incubation Policy.

3.4. **Mentorship and Support:** The Parties will provide mentorship, technical assistance and business development support to the selected startups.

3.5. **Infrastructure Sharing:** The Parties will share incubation space, laboratories and other relevant infrastructure.

3.6. **Intellectual Property:** The Parties will agree on the terms for the protection and ownership of intellectual property generated by the startups, ensuring that any commercialization benefits align with GN JERBI Incubation Policy.

4. TERMS AND CONDITIONS

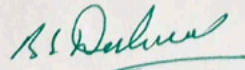
4.1 Responsibilities of LAEC:

- a. Provide necessary administrative and financial support to GN JERBI Foundation for the effective implementation of co-incubation activities.
- b. Ensure the availability of necessary infrastructure and resources to support the co-incubation activities as per requirements.
- c. Facilitate access to LAEC's laboratories, equipment and other facilities for the benefit of incubated startups.
- d. Collaborate with GN JERBI Foundation in organizing innovation and entrepreneurship programs, workshops and events.

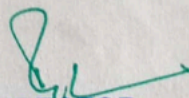
4.2 Responsibilities of GN JERBI:

- a. Provide access to existing laboratories and facilities of GN JERBI Foundation NIDHI DST iTBI Centre to startup enterprises pre-incubated / incubated under this MoU.
- b. Collaborate with LAEC in organizing innovation and entrepreneurship programs, workshops and events.
- c. Ensure effective linkages with different departments, centers and other facilities of GN JERBI Foundation to support market-relevant innovations and startups.
- d. Provide services to develop innovative projects and facilitate internship opportunities for students and incubatees.
- e. Help to generate incubation revenue through continuous activities such as inhouse project

development, training programs, workshops and consultancy services.



SECRETARY
Sharnbasaveshwar Vidya
Vardhak Sangh, Gulbarga



DIRECTOR
Guru Nanak Jhira
Entrepreneurship Research &
Business Incubation Foundation,
BIDAR

4.3 Joint Responsibilities:

- a. A joint steering committee will be formed to oversee this co-incubation program.
- b. Conduct joint outreach programs to identify potential incubatees and innovative startups.
- c. Develop a transparent system for the selection and admission of incubatees.
- d. Provide mentoring support, access to funding opportunities and networking with investors, mentors and industry experts.
- e. Monitor the progress of incubated startups and provide necessary support to ensure their growth and sustainability.

5. Duration and Termination:

- 5.1 This MoU shall be effective for a period of three (3) years from the date of signing.
- 5.2 Either party may terminate this MoU by providing a written notice of three (3) months to the other party.
- 5.3 Upon termination, both parties shall ensure the completion of ongoing projects

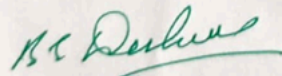
6. Confidentiality

- 6.1. The Parties agree to maintain the confidentiality of any proprietary or confidential information disclosed by the other Party in connection with this MOU.

7. Dispute Resolution

- 7.1. Any disputes arising out of or in connection with this MOU shall be resolved through amicable negotiations.

IN WITNESS WHEREOF, the Parties have executed this Memorandum of Understanding as of the date first written above.


SECRETARY


DIRECTOR
Guru Nanak Jhira
Entrepreneurship Research &

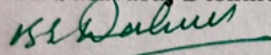
Sharnbasaveshwar Vidya
Vardhak Sangh, Gulbarga

Business Incubation Foundation,
BIDAR

Signed on this 30th day of JULY 2024.

For & on behalf of the LAEC

Name: Shri. Basavaraj Deshmukh



SECRETARY

Sharnbasaveshwar Vidya

Vardhak Sangh, Gulbarga

Designation: Secretary, LAEC

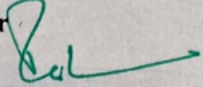
Postal Address: Survey No. 25, Gornalli,
Bidar-585403

Phone number: +91-8792506036

Email Address: lingarajappaengg@gmail.com

For & on behalf of the GN JERBI Foundation

Name: Dr. Reshma Kaur



DIRECTOR

Guru Nanak Jhira

**Entrepreneurship Research &
Business Incubation Foundation**

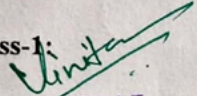
Designation: Director, GN JERBI Foundation.

Postal Address: GND Engineering College,
Mailoor Road, Bidar-585403

Phone number: +91-9480150000

Email Address: reshamakaur@gmail.com

Witness-1:



PRINCIPAL

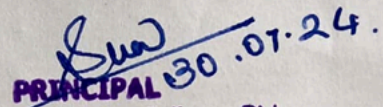
Lingaraj Appa Engineering College
Gornall, BIDAR-585403

Dr. Vinita Patil

Principal,

Lingaraj Appa Engg College, Bidar.

Witness-2:



PRINCIPAL 30.07.24.

Guru Nanak Dev Engg. College, Bidar

Dr. Suresh R Reddy

Principal,

Guru Nanak Dev Engg College, Bidar.

9.5.5 Institution's Innovation Council (IIC)

The **Institution's Innovation Council (IIC)** at **Lingaraj Appa Engineering College, Bidar (2022)** is established to promote innovation and entrepreneurship among students. The council encourages students to think creatively, develop new ideas, and transform them into useful prototypes.

The IIC plays an important role in creating an innovation-friendly environment on campus by supporting students in developing practical solutions to real-world problems and motivating them to explore entrepreneurship.

Objectives of IIC

- To nurture innovation, entrepreneurship, and start-up culture among students.
- To support the transformation of ideas into practical and useful products.
- To promote design thinking and innovative learning approaches.
- To organize collaborative and interdisciplinary activities for product development.





Figure 9.5.9: Establishment Certificate

A sample report of Awareness Session about the VTU Center of Excellence in Artificial Intelligence Based Skilling and Assessment organized by IIC is attached below

Report on-Awareness Session about the VTU Center of Excellence in Artificial Intelligence Based Skilling and Assessment

Resource Person:

Mr. Abhijith Jain Co-ordinator

VTU Center of Excellence in Artificial Intelligence Based Skilling and Assessment

Mr. Abhijith Jain is actively involved in promoting AI-enabled skilling, digital assessment, and career readiness initiatives for students through VTU. During the session, he shared valuable insights into the role of Artificial Intelligence in modern education, assessment mechanisms, and employability enhancement.

He explained how AI-driven platforms can help students improve their performance through personalized assessment, skill analysis, and structured learning pathways.

INTRODUCTION

The Institution's Innovation Council (IIC) organized an Awareness Session on VTU Center of Excellence in Artificial Intelligence Based Skilling and Assessment with the aim of creating awareness among students about the opportunities available through VTU for AI-based learning, assessment, and skill development.

In today's highly competitive and technology-driven environment, students need to continuously upgrade their knowledge and competencies to meet industry demands. Recognizing this need, VTU Center of Excellence in Artificial Intelligence Based Skilling and Assessment has taken a significant initiative to provide virtual access to multiple Artificial Intelligence-based platforms that help students assess, identify, and improve their skills and become job ready.

One of the most valuable aspects of this initiative is that all the platform access is being provided free of cost through VTU, thereby ensuring equal opportunities for students to develop their technical and professional competencies.

ABOUT THE PROGRAM

The awareness session was conducted to inform students about the importance of AI-based skilling platforms and how such platforms can support them in:

- Assessing their current skills

- Identifying strengths and weaknesses
- Improving technical and employability skills
- Enhancing placement readiness
- Developing industry-relevant competencies

The event served as an excellent platform to bridge the gap between academic learning and industry expectations.

OBJECTIVES OF THE EVENT

The main objectives of the event were:

- To create awareness about Artificial Intelligence-based skilling and assessment platforms
- To help students understand the role of AI in skill development
- To encourage students to make effective use of VTU-supported digital learning tools
- To enable students to identify and improve their skill gaps
- To motivate students to become industry-ready and job-ready
- To promote self-learning and continuous upskilling among students

PROCEEDINGS OF THE EVENT

The program began with a formal inauguration ceremony, followed by the traditional lamp lighting in the presence of dignitaries, faculty members, and the invited resource person. The event created an inspiring and academic atmosphere for the participants.

The session commenced with a welcome address, in which the importance of student skill enhancement and digital competency was highlighted. The resource person, Mr. Abhijith Jain, was then introduced to the audience.

During the session, the resource person explained the objectives and benefits of the VTU Center of Excellence in Artificial Intelligence Based Skilling and Assessment. He informed the students that VTU is providing free virtual access to multiple AI platforms, which can be used for:

- Skill assessment
- Learning analysis
- Performance tracking
- Gap identification
- Personalized improvement
- Placement and career preparation

The session emphasized the growing significance of AI in education, employment, and lifelong learning. Students were encouraged to actively use these platforms to build their confidence, technical expertise, and professional readiness.

The event concluded with the felicitation of the resource person and a vote of thanks.

STUDENT PARTICIPATION

A large number of students and faculty members actively participated in the awareness session. The event witnessed enthusiastic involvement from students, who showed keen interest in understanding how AI can support their academic and professional growth.

The participation reflected the institution's commitment to promoting innovation, skill development, and career preparedness among students.

OUTCOMES OF THE EVENT

The session resulted in the following outcomes:

- Students gained awareness about AI-based skilling and assessment tools
- Students understood the benefits of self-assessment and continuous learning
- Participants became aware of free VTU-supported AI learning platforms
- Students were motivated to improve their technical and employability skills
- Faculty and students recognized the relevance of AI in modern education and career development
- The session promoted a culture of innovation, self-improvement, and industry readiness

IMPACT OF THE PROGRAM

The awareness session had a positive impact on the participants by introducing them to future-ready digital learning resources. The event motivated students to take proactive steps toward skill enhancement, self-learning, and employability preparation.

Such initiatives play an important role in shaping students into competent, confident, and job-ready professionals, aligned with the requirements of the modern workforce.

PHOTOGRAPHS OF THE EVENT



Figure 9.5.10: Awareness Session in Progress

Caption: The awareness session was conducted in the seminar hall, where the dignitaries and resource person addressed the students on the importance of AI-based skilling and assessment initiatives.



Figure 9.5.11: Participation of Students and Faculty Members



Figure 9.5.12: Inaugural Lamp Lighting Ceremony

Caption:
The event commenced with the traditional lamp lighting ceremony in the presence of dignitaries and faculty members.

CONCLUSION

The Awareness Session about VTU Center of Excellence in Artificial Intelligence Based Skilling and Assessment was highly informative and beneficial for the students. The initiative of providing free virtual access to multiple AI-based platforms through VTU is a significant step toward promoting skill development, innovation, and employability enhancement among students. The session successfully created awareness about the importance of Artificial Intelligence in skilling, assessment, and job readiness, and encouraged students to utilize available digital resources effectively. The Institution's Innovation Council (IIC) sincerely appreciates the contribution of Mr. Abhijith Jain for delivering an insightful and impactful session.

A sample Report on “Samshodhana 2025-Innovation, Skills, Problem Solving Boot Camp”

Samshodhana 2025 is a **technical and research-oriented event** designed to promote innovation, creativity, and practical learning among students. The term “**Samshodhana**” means **research, exploration, and discovery**, reflecting the spirit of innovation and knowledge enhancement.

Samshodhana 2025 serves as a platform for students to showcase their technical skills, participate in competitive events, and engage in hands-on learning experiences. The event includes activities such as technical challenges, coding contests, skill-building sessions, project demonstrations, and innovation-based competitions like **Skillathon**. Samshodhana 2025 is a part of VTU program.

The first program Skillaton was conducted on 20/12/2025 at GNDEC B.idar

Objective of Skillaton

- To provide a **platform for intensive skill development** through hands-on learning and real-time problem-solving.
- To enhance **technical, analytical, and practical competencies** among students.
- To encourage **innovation, creativity, and teamwork** in solving domain-specific challenges.
- To bridge the gap between **theoretical knowledge and practical application**.

- To promote **self-learning, time management, and competitive spirit** among participants.

75 Students of CSE, ECE, EEE have registered and attended the skillaton and received the certificates on "AI Literacy".

Table 9.5.4 below Shows a List of Students attended in the Boot camp at GNDEC Bidar

Sl. No	Student Name	BRANCH
1	AISHWARYA	EEE
2	ANJALI	EEE
3	BHAGYASHREE	EEE
4	GUNDAYYA	EEE
5	KALPANA	EEE
6	MAMTA	EEE
7	MANASA	EEE
8	NAGAMMA	EEE
9	OMSHREE	EEE
10	PAVITRA	EEE
11	SHREYA RAMACHANDRA	EEE
12	SNEHA. L	EEE
13	VIRESH	EEE
14	BASVARAJ	EEE
15	BHAGYASHREE	EEE
16	SAPNA	EEE
17	SHREYA UGRAPNUR	CSE
18	VACHANSHREE WALLURE	CSE
19	SPURATI VEERBHADRAPPA	CSE
20	SNEHA	CSE
21	VIJAYLAXMI	CSE
22	SHREYA PATALE	CSE
23	SAPNA	CSE
24	SHRADHA	CSE
25	RAKSHITA	CSE
26	PUSHPANJALI	CSE
27	MAHIMA	CSE
28	MAHANANDA	CSE
29	BHOOMIKA	CSE
30	BHAVANA	CSE
31	BHAGYASHREE	CSE
32	APEKSHA	CSE
33	LAKSHMI	CSE
34	BHAVANI S	CSE

35	ANURADHA	CSE
36	BHAGYASGREE BADAGI	CSE
37	ANJALI	CSE
38	AISHWARYA	CSE
39	DEVIKA	CSE
40	ASHWINI	CSE
41	DEEPAK	CSE
42	ADDUL BASEER	CSE
43	MD SOHEL	CSE
44	KHAJA MOINUDDIN	CSE
45	ANANYA PATIL	CSE
46	AMITH	CSE
47	MEGHA	CSE
48	MD BILAL	CSE
49	SHIVU MALGE	CSE
50	MANEHANISSA	CSE
51	BHAYASRI NALLOLA	CSE
52	KHADIJA MANZOOR ALI	CSE
53	KASTOORI D K	CSE
54	RAVINA	CIVIL
55	GUNDAPPA	CIVIL
56	ROHIT	CIVIL
57	RITESH	CIVIL
58	KASHEMMA	CIVIL
59	SANGAMESH	CIVIL
60	HAREESH	MECHANICAL
61	P.MARUTHI	MECHANICAL
62	AJAY	MECHANICAL
63	KASHINATHAYYA	MECHANICAL
64	LINGRAJ	MECHANICAL
65	BASVAJYOTI	ECE
66	ASHWINI	ECE
67	JYOTI	ECE
68	DEEPIKA	ECE
69	SONABAI	ECE
70	SHRUTI	ECE
71	MAHADEV	ECE
72	MEGHANA	ECE

73	DIVYA	ECE
74	SAMSKRUTI	ECE
75	BHAGYAMMA	ECE



Figure 9.5.14: Sample of Certificate received by students during skillatlon

Boot camp a part of **Samshodhana 2025** is an intensive learning program designed to equip participants with practical knowledge and hands-on experience in emerging technologies and research-oriented skills. Through expert-led sessions, interactive activities, and real-time problem-solving, the Boot camp provides a focused platform for skill enhancement, innovation, and application of theoretical concepts to real-world scenarios. It aims to foster technical competence, creativity, and industry readiness among participants.

The second program conducted was **Boot camp** on 12/03/2026 & 13/03/2026 with 75 students participating from various departments. The focus of these 2 days Boot camp was on personality development and professional communication.



Figure 9.5.15: Inauguration of 2DAYS Boot camp @GNDEC,Bidar .



Figure 9.5.16: Students actively participating in 2 Days Boot camp



Figure 9.5.17: Students actively participating in 2 Days Boot camp

9.6.1 Governing body, administrative setup, functions of various bodies, service rules, procedures, recruitment and promotional policies.

9.6.1 Governing body

1. Governing Council members (GCM):

The **Governing Council Member** is the primary authority of the Linagaraj Appa Engineering College, responsible for overseeing its functioning. The list of governing Council is provided in **Table 9.6.1**. The **Governing Council Members** shall be the Principal Governing Body of the institute and shall have the following powers, namely:

- a. Frames major policies related to academics, administration, finance, and development.
- b. Ensures alignment with guidelines from authorities like AICTE, DTE & VTU.
- c. Approves long-term vision, mission, and growth plans.
- d. Focuses on improving quality of education, research, and infrastructure.
- e. Approves budgets and major expenditures.
- f. Ensures proper allocation and utilization of funds.
- g. Approves recruitment of principal, faculty and staff members.
- h. Reviews staff policies, promotions, and service rules.
- i. Reviews academic performance and results.
- j. Ensures quality standards in teaching and evaluation.
- k. Approves construction of buildings, labs, and facilities.
- l. Supports modernization (smart classrooms, equipment, etc.)
- m. Ensures the institution follows rules of regulatory bodies.
- n. Reviews institutional performance regularly.
- o. Exercises overall control of the institution.
- p. Can issue directions to Principal Administrative bodies.
- q. Has authority to restructure administrative systems.
- r. Has authority in serious matters related to Staff misconduct, Institutional disputes. Can form committees for inquiry and take final decisions.
- s. Encourages internships, placements, and research partnerships.
- t. Ensures continuous improvement in education standards.
- u. Can delegate powers to Principal, Committees.

Table 9.6.1: List Governing of Council members

SL.No	Name	Designation	Contact No
1	Matoshree Dr. Dakshayani S. Appa	President	8792506036
2	Shri. Basavaraj Deshmukh	Secretary	9448206708
3	Shri. Sharanabasappa Deshmukh	Member	9980244352
4	Dr. Uma B Deshmukh	Member	9448960859
5	Dr. Gangambika Nisty	Member	9886694505
6	Shri. B.G. Patil	Member	9448471549
7	Shri. Umakanth G. Nagmarpalli	Member	9448135215
8	Dr. Vinita Patil (Principal)	Ex-Officio Member Secretary	8792506036
9	Dr. Vivek Jaladi	Faculty Nominee	9986291615

Meeting of the Governing Council Member.

The Governing Council Member meeting will be scheduled minimum two times in a year, and prior intimation will be given to all the members through meeting Notice mentioning date, time, venue and agenda of the meeting. All the meeting related supporting documents available for the reference in the office.

Table 9.6.2: Meeting of the Governing Council Member

Sl.No	Meeting No	Date	No of Members attended
1	Meeting 1	13/2/2021	8
2	Meeting 2	02/11/2021	6
3	Meeting 3	04/04/2022	7
4	Meeting 4	19/10/2022	7
5	Meeting 5	19/06/2023	8
6	Meeting 6	12/12/2023	6
7	Meeting 7	29/04/2024	9
8	Meeting 8	24/06/2024	7
9	Meeting 9	05/11/2024	6
10	Meeting 10	21/04/2025	8
11	Meeting 11	09/09/2025	6

A sample of governing council meeting is attached below:

Estd. 2011



Prof. Ramiah D. Deshpande
Chairman
Sharnbasveshwar Vidya Vardhak Sangha
Member of AICTE (Sharnbasveshwar)



Prof. Dhananjaya Deshpande
President
Sharnbasveshwar Vidya Vardhak Sangha
Member of AICTE (Sharnbasveshwar)



Prof. D. Sharanabasappa
President
Sharnbasveshwar Vidya Vardhak Sangha
Member of AICTE (Sharnbasveshwar)

Lingaraj Appa
Engineering College
Gornalli, Bidar - 585 403
(Karnataka) - India



ಲಂಗರಾಜ ಅಪ್ಪಾ
ತಾಂತ್ರಿಕ ಮಹಾವಿದ್ಯಾಲಯ
ಗೋರನಳ್ಳಿ, ಜೀದರ್- 585 403
(ಕರ್ನಾಟಕ) - ಭಾರತ



Prof. Jayappa Doodappa Appa
Foster President
Sharnbasveshwar Vidya Vardhak Sangha



Prof. Manohar Gobdal Anvi
Foster President
Sharnbasveshwar Vidya Vardhak Sangha

(AICTE Approved & VTU Affiliated)

(Under the aegis of centenary celebrated Sharnbasveshwar Vidya Vardhak Sangha)

Phone : 8792506036 * email:lingarajappaengg@gmail.com * website : www.lingaraj-appaec.in

Institutions Run by Centenary Celebrated

Sharnbasveshwar Vidya Vardhak Sangha, Kalaburagi

Sharnbasva University, Kalaburagi 2017

1. Sharnbasveshwar Vidya Vardhak Sangha, Kalaburagi 1903
2. Godutai Engineering College for Women, Kalaburagi 2011
3. Appa Institute of Engineering & Technology, Kalaburagi 2002
4. Appa Institute of Engineering Science & Technology
M.Tech. in Comp. & Digital Electronics 2011
5. Veerappa Nisty Engineering College, Shorapur 2010
6. Lingaraj Appa Engineering College, Bidar 2011
7. Doodappa Appa Institute for MCA, Kalaburagi 1989
8. Doodappa Appa Institute of MBA, Kalaburagi 1986
9. Appa Institute of MBA (VTU) Kalaburagi 2007
10. Godutai Institute of MBA (For Women) Kalaburagi 2011
11. Lingarajappa Institute of MBA, Bidar 2011
12. Veerappa Nisty Institute of MBA, Shorapur 2011
13. Appa Research Institute, Kalaburagi 2012
(Recognized by Mysore University, Mysore)
14. Sharnbasveshwar Science College, Kalaburagi 1956
15. Post Graduate studies in Computer Science 2012
Sharnbasveshwar College of Science, Kalaburagi
16. Post Graduate studies in Master of Tourism 2007
Administration 5 year integrated Course (MTA)
17. Post Graduate Studies in Master of Arts in 2009
Journalism & Mass Communication, Godutai College, Kib.
18. Post Graduate Studies in Master of Fine Arts, 1957
Sharnbasveshwar Arts College, Kalaburagi
19. Sharnbasveshwar Residential Public School, 1967
with State & CBSC Syllabus, Kalaburagi
20. Sharnbasva Public School Residential Independent 2011
Junior Science College, Shorapur.
21. Sharnbasva Public School's Residential Independent 2011
Junior Science College, Bidar
22. Sharnbasveshwar Anthanwani Community Radio, (FM) Kib. 2009
23. Mahadevi Girls Higher Primary School, Kalaburagi 1934
24. Mahadevi Girls High School, Kalaburagi 1960
25. Sharnbasveshwar Composite P.U. College, Kalaburagi 1949
26. Sharnbasveshwar Ind. P.U. College of Science, Kalaburagi 1956
27. Sharnbasveshwar College of Commerce, Kalaburagi 1961
with Post-Graduate Diploma in Business Management
28. SSK, Basveshwar College of Arts & Science, Basavakalyan 1967
29. Sharnbasveshwar Printing & Publication, Kalaburagi 1969
30. Godutai Doodappa Appa P.U. College for Women, Kalaburagi 1971
31. Godutai Doodappa Appa Arts & Commerce 1973
College for Women, Kalaburagi
32. Sharnbasveshwar Granthavishwa Vidya Nilaya, Kalaburagi 1978
33. Sharnbasveshwar College of BBM, Kalaburagi 1996
34. Doodappa Appa Residential P.U. Science College, Kalaburagi 1969

Ref. No. LAEC/GOR/BDR/2023-24/586

Date : 29/4/2024

Governing Council Meeting

Date: 29/04/2024

Proceeding of governing body meeting of Lingaraj Appa Engineering College, Bidar held on 29/04/2024 Monday at 11.30 am in the chamber of honorable secretary, Sri Basavaraj Deshmukh.

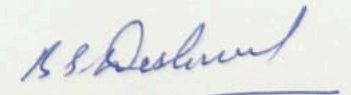
Agenda

1. Approval of staff member's promotion, implementation of AICTE scale for deserving candidates who have completed probationary period.
2. Approval of newly appointed staff members
3. Approval of computers and other peripheral for various labs.
4. Analysis of BE, M.Tech and MBA semester result
5. Any other matters with permission of the chair.

The following were the members who have present for the governing body meeting

1. Sri Basavaraj Deshmukh
2. Sri Sharanbasavappa Deshmukh *S.S. Deshmukh*
3. Dr. Umatai Deshmukh *Umatai*
4. Dr. Vinita Patil *Vinita*
5. Dr. Vivek Jaladi *Jaladi*

35. Muktabika Residential Int. P.U. Science College For Girls, Kalaburagi	1999
36. Godutai Doddappa Appa BCA College for Women, Kalaburagi	2001
37. Muktabika Residential BCA College for Women, Kalaburagi	2001
38. Doddappa Appa BCA College, Basavakalyan	2001
39. Shambasveshwar BCA College, Kalaburagi	2001
40. Muktabika Residential BBM College, Kalaburagi	2004
41. Shambasveshwar BBM College, Basavakalyan	2004
42. Godutai College of Education (B.Ed), Kalaburagi	2004
43. Shambasveshwar B.Ed. (E.M.), Kalaburagi	2004
44. Godutai D.Ed. College for Women, Kalaburagi	2004
45. Komalatai Resi. P.U. College for Girls, Basavakalyan	2006
46. Shambasveshwar Residential Public School, Basavakalyan	2006
47. Shambasveshwar D.Ed. College, Basavakalyan	2004
48. Doddappa Appa B.Ed. College, Basavakalyan	2004
49. Shambasveshwar Public Library, Kalaburagi	1918
50. Basavarajappa Appa Degree College of Commerce Hasanapur, Tq. Shorapur Dist. Yadgi	2016


SECRETARY
SECRETARY
Shambasveshwar Vidyavardhak
Sangh, Gulbarga

Centenary Celebrated Sharanbasveshwar Vidya Vardhak Sangha's



LINGARAJ APPA ENGINEERING COLLEGE, BIDAR

Gornalli, Bidar – 585403, Karnataka – India
(AICTE Approved & VTU Affiliated)

ACTION TAKEN REPORT

On the Resolutions of the 7th Meeting of the Governing Body, Lingaraj Appa Engineering College, Bidar.

Meeting held on 29th April 2024, at 11.30am

Venue: The Chamber of Honorable Secretary
LAEC, Bidar– 585403.

The following **Action Taken Report** is the resolutions passed in the 7th Meeting of the Governing Body. The report records the action initiated and completed by the College administration in pursuance of the decisions taken by the Governing Body.

The counts below are taken directly from the proceedings.

Item No	Agenda Matter	Decision Taken	Action Taken / Remarks
7.1	Confirmation of the agenda matters of 6 th Governing Body meeting held on 12 th December2023.	The house unanimously resolved to confirm the agenda matters of the 6 th Governing Body meeting held on 12 th December2023.	In pursuance of the resolution of the Governing Body, the minutes and resolutions of the 6 th Governing Body meeting held on 12 th December2023. were treated as formally confirmed. The approved agenda matters of the 6 th meeting were entered into the official records of the College and taken as the authenticated proceedings for reference in all subsequent academic and administrative actions. All resolutions already acted upon from the previous meeting continue to remain valid and confirmed by the Governing Body. The Minutes confirmed and recorded.
7.2	Approval of	Approved increments and	After evaluating the performance,

	Promotion of staff members and implementation of Increments	Promotion of eligible staff members.	experience, and eligibility criteria of staff members, the Governing body approved 20% increment for all the staff members and also promotions to the eligible staff members.
7.3	Approval for appointment of new staff members	Approval for appointment of new staff members	The Governing body reviewed the requirement of additional teaching and non-

			teaching staff for effective academic and administrative functioning and approved the appointment of new staff members as per institutional norms and recommendations of the selection committee.
7.4	Approval for purchase of computers and peripherals	Approved purchase Computers and other peripherals for various labs	Based on the approval of the Governing Body, the required computers and peripherals were procured following the prescribed purchase procedures and institutional norms. The equipment was subsequently installed in the respective laboratories and configured for academic use.
7.5	Analysis of BE and MBA results.	Reviewed and appreciated results	The academic results of BE, M.Tech, and MBA programs have been compiled for analysis. The data includes pass percentage, distinctions, first class and second class students performance, and overall results. Based on the observations of the Governing Body, the respective departments conducted a detailed analysis of the results and identified areas of improvement. Remedial measures such as special classes, mentoring sessions, and continuous academic monitoring were implemented.

Result analysis Details

Course	Year	Sem	No.of Students Appeared	No.of Students Passed	Pass %	No.of FCD	No.of FC	No.of SC
Computer Science & Engineering - UG	2023-24	I	126	54	43	15	35	4
Computer Science & Engineering - UG	2023-24	III	51	33	65	33	0	0
Computer Science & Engineering - UG	2023-24	V	50	40	80	27	13	0
Computer Science & Engineering - UG	2023-24	VII	40	40	100	32	6	2
Civil Engineering - UG	2023-24	I	13	1	7	0	1	0
Civil Engineering - UG	2023-24	III	16	7	44	2	3	2

Civil Engineering - UG	2023-24	V	24	9	38	3	5	1
Civil Engineering - UG	2023-24	VII	13	7	54	3	4	0

Electronics & Communication Engineering - UG	2023-24	I	49	33	67	5	20	8
Electronics & Communication Engineering - UG	2023-24	III	44	17	39	17	0	0
Electronics & Communication Engineering - UG	2023-24	V	30	19	63	19	0	0
Electronics & Communication Engineering - UG	2023-24	VII	8	8	100	7	1	0
Electrical & Electronics Engineering - UG	2023-24	I	41	24	58	5	13	6
Electrical & Electronics Engineering - UG	2023-24	III	41	11	27	10	1	0
Electrical & Electronics Engineering - UG	2023-24	V	20	12	60	13	7	0
Electrical & Electronics Engineering - UG	2023-24	VII	4	4	100	4	0	0
Mechanical Engineering - UG	2023-24	I	16	1	6	0	0	1
Mechanical Engineering - UG	2023-24	III	12	2	17	2	0	0
Mechanical Engineering - UG	2023-24	V	16	6	38	5	1	0
Mechanical Engineering - UG	2023-24	VII	9	8	89	5	3	0
Computer Science & Engineering - PG	2023-24	I	9	7	77	7	0	0
Computer Science & Engineering - PG	2023-24	III	5	5	100	5	0	0
VLSI Design and Embedded System - PG	2023-24	I	7	0	0	0	0	0
VLSI Design and Embedded System - PG	2023-24	III	4	4	100	4	0	0
Machine Design - PG	2023-24	I	6	2	36	2	0	0
Machine Design - PG	2023-24	III	2	2	100	2	0	0
MBA - PG	2023-	I	56	26	45	16	10	0

MBA - PG	24	2023-24	III	50	38	76	35	3	0
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Conclusion: All resolutions were implemented successfully as per norms.

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9.6.2 Administrative Setup

The institution has a well-defined administrative setup that ensures efficient governance, transparency, and smooth functioning of academic and non-academic activities. The administrative structure follows a hierarchical and participative approach, promoting decentralization and accountability at all levels. The Organization Structure of the LAEC is shown in below Figure 9.6.1. Secretary/Principal through his delegation of authority constitutes various committees for making relevant policies and their implementation.

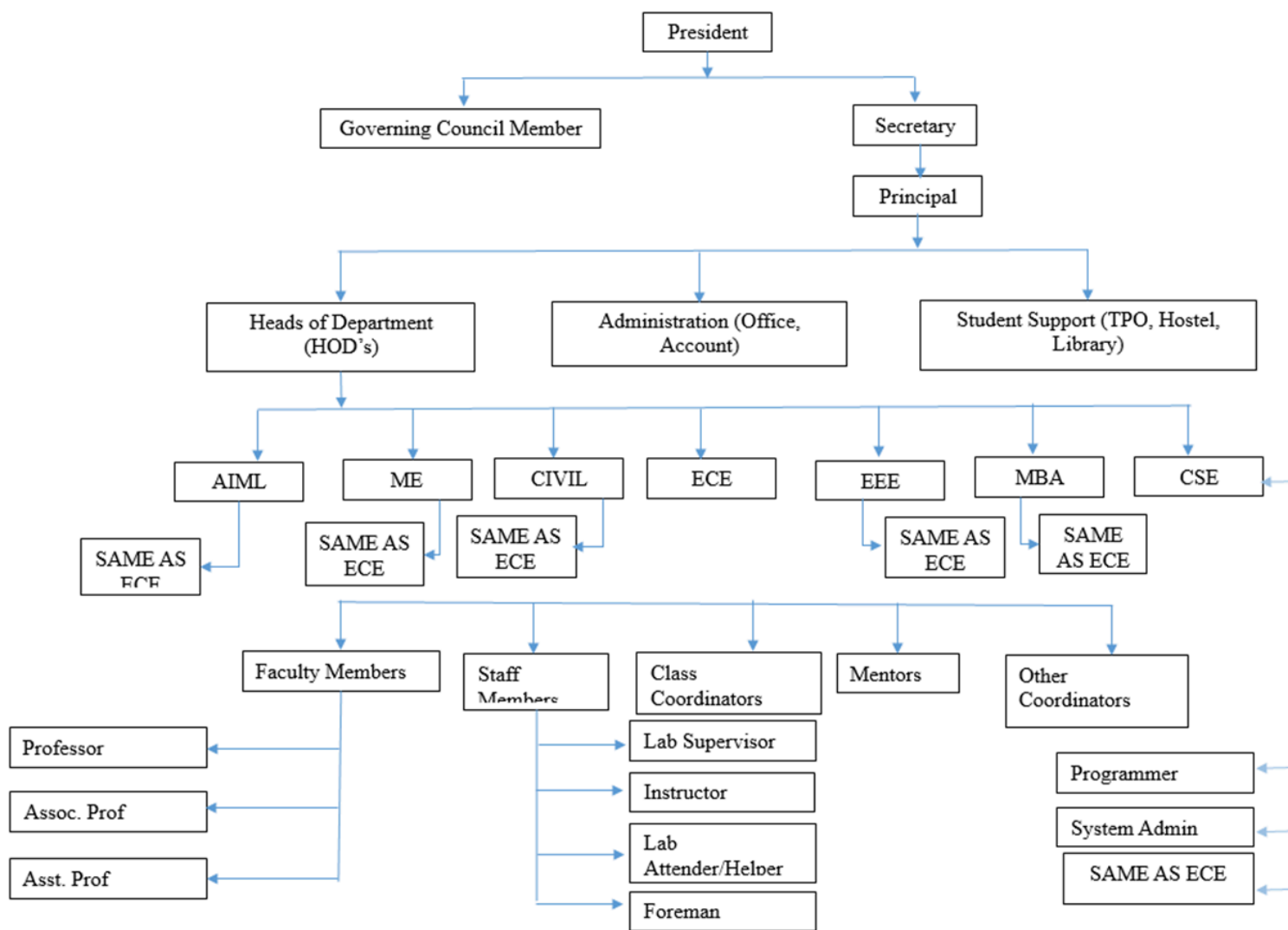


Figure 9.6.1 Organization structure of the LAEC Bidar.

Administrative Committees

1. Internal Quality Assurance Cell (IQAC).
2. Women's Grievance Redressal Cell (WGRC).
3. Grievance Redressal Committee.
4. Innovation Club.
5. Student Grievance Redressal Committees

6. SC/ST Committees.
7. Industry Collaboration Cell.
8. Anti-Sexual Harassment Committees.
9. Internal Complaint Committee (ICC).
10. Anti-Ragging Committee.
11. Women Empowerment Cell
12. Disciplinary Committee.

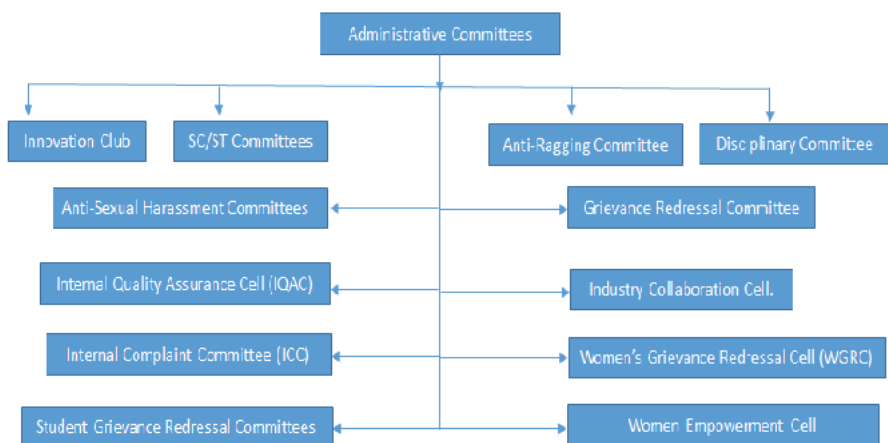


Figure 9.6.2 Administrative Committee

1. Internal Quality Assurance Cell (IQAC)

The institution has established an active **Internal Quality Assurance Cell (IQAC)** to ensure continuous improvement in academic and administrative performance, in line with the guidelines of the National Board of Accreditation, All India Council for Technical Education, and University Grants Commission. The IQAC plays a vital role in strengthening governance, quality sustenance, and institutional effectiveness.

The IQAC is chaired by the Head of the Institution and includes senior faculty members, administrative staff, industry experts, and student representatives, ensuring participatory management. The cell regularly conducts meetings to review academic processes, monitor program outcomes, and implement quality benchmarks.

The IQAC facilitates the development and application of quality parameters in areas such as curriculum delivery, teaching-learning processes, research activities, and student support systems. It collects and analyse feedback from stakeholders and ensures corrective actions for continuous improvement. The cell also promotes best practices, organizes faculty development programs, and encourages innovation and research initiatives.

All activities and decisions of IQAC are systematically documented, including meeting minutes, action taken reports, and quality audits, which serve as evidence. Through its structured approach, IQAC significantly contributes for enhancing governance practices, ensuring accountability, and fostering a culture of continuous quality improvement, thereby strengthening the overall institutional performance and excellence.

Table 9.6.3: Internal Quality Assurance Cell (IQAC)

SL NO	NAME	DESIGNATION	Contact No
1	Dr Vinita Patil	Chairperson	8792506036
2	Dr Sharanbasappa Shetkar	SAO	9986788989

3	Dr.Vivek Jaladi	SAO	9986291615
4	Mr.Anilkumar D	SAO	8951621959
5	Mr.Srinivas D	Coordinator	8951535689
6	Mr.G Prashant	Coordinator	7411241115
7	Dr Shilpa H	Member	9731051555
8	Dr Sagarkumar B	Member	9844774387
9	Mrs Asharani A	Member	9738601607
10	Mr Umesh R -VP Cadmaxx	Industry Expert	9844481112
11	Dr Veerendra D	External Expert	8296721601
12	Dr Basanti	External Expert	9964494923
13	Dr Sujata	External Expert	9845425629

Table 9.6.4: Meeting of Internal Quality Assurance Cell (IQAC)

Year	Meeting Number	Date	No. of members attended
2023	1	07-8-2023	6
2024	2	12-8-2024	7
2025	3	3-2-2025	8
2025	4	28-7-2025	8
2026	5	20-1-2026	10

2. Women's Grievance Redressal Cell (WGRC)

1. Gender Sensitization

Gender Sensitization involves creating awareness about issues of gender and sexuality and working towards and creating an enabling environment of gender justice where all can work together with a sense of personal security and dignity. Sensitization and Awareness will be a basic function of the Committee formed. The following is a list of methods in which awareness and sensitization of students, staff and faculty will be conducted:

An orientation seminar will be organized to discuss the nature and scope of the sexual harassment of women at the workplace (Prevention, Prohibition and Redressal) Act 2016, at the beginning of the academic year.

- One or more workshops/seminars annually where external experts on the subject will interact with all employees and students.
- Seminars, performances and discussion forums where gender sensitization and gender awareness will be the focus - these will happen during the academic year.
- Spreading awareness of the policy and implementation of the same through informal sessions, performances, cultural events, etc.

2. Objective of the Womens Grievance Redressal Cell

The Cell will deal with the cases/complaints of sexual harassment and any other type of harassment of the female students, teaching and non-teaching women staff of the college. The Cell shall process all the individual complaints and take immediate suitable action. The Cell will provide assistance to the Faculty/Colleges for taking preventive steps in the matter of gender discrimination and sexual harassment. The Principal will be the Chairman of the Cell and may appoint members of the cell. The Cell may form / review the guidelines/policy for redressal of the grievance as required from time to time, which may be in accordance with those issued by Supreme Court and Government Agencies.

3. Grievance Procedure

Any women employee or female student will have the right to lodge a complaint concerning sexual harassment against a male student or the employee of the institute by writing a letter or putting the complaint in the Principals office. The complaint will be afforded full confidentiality at this stage. After receiving the complaint; the chairman shall convene the meeting of the cell. The chairman will appoint investigation committee, Coordinator will convene the meetings. The investigation committee shall then decide the course of action to proceed. The complaint will stand dropped if in accordance to the committee the complaint has not been able to disclose prima-facie an offence of sexual harassment by complainer /her representative. In case the investigation committee decides to proceed with the complaint, the wishes of the complainer shall be ascertained and if the complainer wishes that a warning will suffice then alleged offender shall be called to the meeting of the committee, heard and if satisfied that a warning is just and proper, he will be warned about his behaviour and non-occurrence of it. In case the complainer requests that the complaint should be proceeded with beyond mere a warning, the same may be proceeded with in the manner prescribed hereafter.

4. Procedure for investigation

If the complainer wishes to proceed beyond a mere a warning to the accused, the accused shall be given in writing by the investigation committee an opportunity to explain within one week why he should not be, for good and sufficient reasons, be punished for the act of sexual harassment on his part. If the written explanation of the accused is not found to be satisfactory or if he does not provide any written explanation, the investigation committee will decide whether the offence deserves a minor penalty or a major penalty. In the event that the investigation committee deciding that the accused be imposed a minor penalty, the said penalty will be recommended by the investigation committee to the chairman of the cell for decision. If the investigation committee comes to a conclusion that the accused in case if his guilt proved, should be imposed a major penalty, it shall make a recommendation of action. If the accused is an employee, he may be placed under suspension under the provisions of act. If a person is charged with physical molestation or rape on college / societys premises, he shall be immediately placed under suspension pending the completion of the investigation and enquiry. Appropriate actions can be initiated as per the laws of Indian penal code.

5. Punishment for sexual harassment

Any member of the institute fraternity (student/employee/outsider related to institute) found guilty of sexual harassment shall be liable to be punished. This shall be subject to the same penalties for major or minor misconduct as prescribed under government/ institute rules. A student guilty of sexual harassment shall be liable for any of the following penalties: a) Warning or reprimand. Suspension from college for a period of one month. Department from appearing for the examination for a period up to three years. Rustication from the institute as the case may be. Any other punishment as defined by the government/ university act.

6. Protection against Victimization

The committee noted and approved the policy on Protection against Victimization of the Womens Grievance Redressal Cell as following

In the event of the complainer being a student and the accused being a teacher, during the pendency of the investigation and inquiry and even after such an enquiry if the teacher is found to be guilty, the accused will not act as an examiner for any examination for which the student appears.

In the event the complainer and the accused both being employees, during the pendency of the investigation and enquiry even after such an enquiry if the accused is found to be guilty, the accused shall not write the condition reports of the complainer, if it is otherwise so authorized.

Table 9.6.5: Women's Grievance Redressal Cell

SL NO	NAME OF FACULTY	DESIGNATION	Contact No	Email id
1	Dr. Vinita Patil	Chairperson	8792506036	Vinita.pratapure@gmail.com
2	Dr. Sangappa R	Coordinator	9901212301	Sangappa8666@gmail.com (mailto:Sangappa8666@gmail.com)
3	Mrs. Preeti K	Senior Faculty Member	9535635808	preeti.mise@gmail.com (mailto:preeti.mise@gmail.com)
4	Mrs .Vaijayanti	Faculty Member	9606757158	vaijayantikotmad@gmail.com (mailto:vaijayantikotmad@gmail.com)
5	Mrs. Sujata reddy	Lady Warden	7337855175	lingarajappaengg@gmail.com (mailto:lingarajappaengg@gmail.com)
6	Mrs.Rajeshwari	Non-Teaching Staff	8310841443	lingarajappaengg@gmail.com (mailto:lingarajappaengg@gmail.com)

7	Miss. Mansa Reddy	Student Representative	9035710435	lingarajappaengg@gmail.com (mailto:lingarajappaengg@gmail.com)
8	Miss. Aarti S	Student Representative	9986091615	lingarajappaengg@gmail.com (mailto:lingarajappaengg@gmail.com)
9	Dr. Umatai Deshmukh	External Expert	9448960859	lingarajappaengg@gmail.com (mailto:lingarajappaengg@gmail.com)

3. Grievance Redressal Committee.

The LAEC has established a well-structured **Grievance Redressal Committee** to ensure transparency, accountability, and effective governance, in alignment with the guidelines of the National Board of Accreditation, All India Council for Technical Education, and University Grants Commission. The cell addresses grievances of students, faculty, and staff related to academic, administrative, and infrastructural matters.

The Grievance Redressal Committee is headed by the Principal and comprises senior faculty members, administrative staff, student representatives, and external members to ensure impartiality. A systematic mechanism is followed wherein grievances are submitted through online portals, email, or complaint boxes. Each grievance is registered, reviewed, and categorized, followed by appropriate investigation and resolution within a stipulated timeframe of 7–15 working days.

Submit grievances through the LAEC online portal using the <https://docs.google.com/forms/d/e/1FAIpQLSfeuQh0I5KyUfEgFLaVha5EXTOUBYpSPnwlAptx6DBfjyqg/viewform> (https://docs.google.com/forms/d/e/1FAIpQLSfeuQh0I5KyUfEgFLaVha5EXTOUBYpSPnwlAptx6DBfjyqg/viewform) link or in writing.

Table 9.6.6: Grievance Redressal Committee.

SL NO	NAME OF FACULTY	DESIGNATION	Contact no	Email id
1	Dr. Vinita Patil	Chairperson	8792506036	Vinita.pratapure@gmail.com
2	Dr Vivek Jaladi	Member	9986291615	vivec53 @gmail.com
3	Dr Bhadrappa H	Member	9739555023	bhadrappabhavimani@gmail.com
4	Dr Sharanbasappa Shetkar	Member	9986788989	sshethkar@gmail.com (mailto:sshethkar@gmail.com)
5	Mrs. Preeti K	Member	9535635808	preeti.mise@gmail.com (mailto:preeti.mise@gmail.com)
6	Dr.Sangappa R	Member	9901212301	Sangappa8666@gmail.com (mailto:Sangappa8666@gmail.com)
7	Dr.Vijayanand Kapte	Member	9972150419	Vijayanandkapte7873@gmail.com (mailto:Vijayanandkapte7873@gmail.com)

4. Innovation Club.

Innovation clubs in LAEC College consist of Internal Committee and External Advisory Committee designed to foster creativity, problem-solving, and entrepreneurial spirit among students.

These clubs provide a platform for students to ideate, design, and implement innovative solutions, bridging the gap between academic learning and practical implementation.

LAEC often organizes workshops, seminars, hackttons, and competitions to promote innovative

thinking and collaboration. Additionally, these clubs may offer mentorship from industry experts and exposure to innovative projects, helping students develop new ideas and become more innovative.

Table 9.6.7 Internal Committee

Sl.No	Name of the Staff	Designation	Contact No
1	Dr. Vinita Patil	Chairperson	8792506036
2	Asst Prof.Sandeep Mashetty	Coordinator	9986880288
3	Asst Prof.Abhilash D.	Member	8904310600
4	Asst Prof Preeti K.	Member	8050692628
5	Asst Prof.Vinaya	Member	7349384954
6	Dr.Basavaling Swamy	Member	9738333094
7	Asst. Prof Amarnath	Member	9663440962
8	Asst Prof Sudarshan	Member	9731772816
9	Asst. Prof Archana	Member	9611198068

Table 9.6.8 External Committee

Sl.No	Name of the Staff	Designation/Organization
1	Dr. Satish Pratapur	Professor, SUK
2	Dr. Sadanand Chidre	-
3	Mr. Praveen G	-
4	Dr. Veeresh	-
5	Mr. Lokesh (EEE)	Alumini
6	Mr. Rakesh M	CEO, GN JHERBI
7	Dr. Lakshmi Maka	Registrar, SUK
8	Dr. Shivkumar Kagi	T&P officer, SUK

5. Student Grievance Redressal Committee.

LAEC has formed Student Grievance Redressal Committees to address and resolve student grievances effectively. This committee is structured to ensure a fair and impartial process, allowing students

to express their concerns without fear of retaliation. This committee handles various grievances, including academic issues and other concerns related to the colleges, administration. The committees also focus on anti-ragging measures and ensure that all grievances are addressed promptly and transparently.

Table 9.6.9 Student Grievance Redressal Committee

SL.No	Name of the Staff	Designation	Contact No
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1	Dr Vinita Patil	Chairperson	9739555023
2	Dr. Vivek Jaladi	Member Secretary	9986291615
3	Prof. Ramya S P	Member	8095573282
4	Dr. Sharanbasappa S	Member	9986788989
5	Dr. Bhadrappa H	Member	9738333094
6	Dr. Sangappa R	Member	9901212301
7	Dr. Vijayanand K	Member	9972150419
8	Prof. Kirankumar M	Member	8050196043
9	Prof. Asharani A	Member	9738601607

6. SC/ST Committees.

LAEC has formed the SC/ST committee to support and empower students from socially, economically, and educationally backward communities. This committee aim to create a safe and secure environment for SC/ST students, provide prompt counseling for emotional emergencies, and ensure protection and reservation as per the constitution of India.

The committees meet regularly to review complaints, suggest remedial measures, and ensure the implementation of policies and programs launched by the Central Government, MHRD, UGC, and State Government for the benefit of SC/ST students.

Table 9.6.10 SC/ST Committees

SL.No	Name of the Staff	Caste	Contact No
1	Dr. Bhadrappa H	SC	9739555023
2	Asst Prof Srinivas Dukan	ST	8951535689
3	Asst Prof Asharani Alure	Other	9738601607
4	Asst Prof Anilkumar Dhame	Other	8951621959
5	Dr. Vivek Jaladi	Other	9986291615

7. Industry Collaboration Cell.

- Establish & Maintain Industry Partnerships.
- Internship & Industrial Training Support.
- Industry Interaction & Events.
- Curriculum Development & Academic Support.
- Projects, Consultancy & Research Collaboration.
- Placement & Employability Enhancement.
- Faculty Development & Exposure.
- Entrepreneurship & Startup Support.
- Documentation & Compliance.

Table 9.6.11 Industry Collaboration Cell

SL.No	Name	Designation
1	Dr. Vinita Patil	Chairperson
2	Dr. Vivek Jaladi	Members
3	Dr. Sharanbasappa S.	Members
4	Dr. Vijayanand K	Members
5	Dr. Sangappa R	Members
6	Mr. Kiran kumar M	Members
7	Mr. Kalyan Rao	Members
8	Mrs. Sahana Patil	Members
9	Mr. Baswaraj Sedam	Members
10	Dr. Bhadrappa H	Members
11	Mr. Shivanmand J	Members
12	Dr. Basavalinga Swamy	Members

8. Anti-Sexual Harassment Committees.

Anti-Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act 2013. Has replaced the guidelines/norms laid down by Hon able Supreme Court on sexual harassment and came into force from 9 December 2013. The Govt. of India made rules for carrying out the provisions of this Act, 2013. The Principal hereby constitutes a standing committee to be known as Anti-Sexual Harassment Committee comprising of the following:

Table 9.6.12 Anti-Sexual Harassment Committees.

Sl. No	Name of the Member	Department	Designation	Mobile Number
1	Dr. Vinita Patil	Principal	Chairman	8792506036
2	Dr. Bhadrappa Haralayya	MBA Dept.	Coordinator	9739555023
3	Asst Prof. Sadhana C	VLSI Design & ES (PG) Dept.	Coordinator	9739666394
4	Dr. Sharanbasappa Shetkar	ECE Dept.	Member	9986788989
5	Dr. Vivek Jaladi	CSE Dept.	Member	9986291615
6	Dr. Vijayanand Kapte	MECH Dept.	Member	9972150419
7	Dr. Sripal Reddy	CSE(PG) Dept.	Member	8892662330

8	Asst Prof. Kirankumar Mulge	Civil Engg. Dept.	Member	8050196043
9	Dr. Sangappa R	EEE Dept.	Member	9901212301
10	Asst Prof. Shruti Modi	CSE(PG) Dept.	Member	9060313999
11	Asst Prof. Sandeep Mashetty	ME(PG) Dept.	Member	9986880288
12	Asst Prof. Basavarajappa S	CSE Dept.	Member	8453888137
13	Asst Prof. Basavaraj B	EEE Dept.	Member	8095011418
14	Asst Prof. Anuja	MBA Dept.	Member	6364164535
15	Asst Prof. Chaya Bhavi	ECE Dept.	Member	9481429203

The committee composed as above shall meet at least once in a year to recommend preventive measures that can be adopted by the institute to prohibit, prevent and eliminate the menace of sexual harassment in any form on the campus of the Institute. The tenure of the nominated members will be renewed/reviewed annually.

9. Internal Complaint Committee (ICC)

The ICC is chaired by a secretary and includes faculty representatives, administrative staff. The committee is responsible for prevention, prohibition, and redressal of complaints. The institution conducts regular awareness programs, workshops, and orientation sessions to sensitize students and staff about gender equality, workplace ethics, and legal provisions. Multiple channels such as online portals, email, and complaint boxes are provided for lodging complaints, ensuring confidentiality and ease of access. All complaints are handled with strict confidentiality and are resolved within a stipulated timeframe through a structured inquiry process.

Submit grievances through the LAEC online portal using the <https://docs.google.com/forms/d/e/1FAIpQLSfeuQh0I5KyUfEgFLaVha5EXTOUBYpSPnwlAptx6DBfjyqg/viewform> link or in writing. (<https://docs.google.com/forms/d/e/1FAIpQLSfeuQh0I5KyUfEgFLaVha5EXTOUBYpSPnwlAptx6DBfjyqg/viewform>)

Table 9.6.13: Internal Complaints Committee (ICC)

SL NO	Name of Members	Position	Contact Number
1	Shri Baswaraj Deshmukh	Chairperson	9448206708
2	Dr Vinita Patil	Member Secretary	8792506036
3	Asst Prof Sadhana C	Member	9739666394
4	Asst Prof Preeti K	Member	8050692628
5	Dr Anita B	Member	8050413519
6	Dr.Vivek Jaladi	Member	9986291615
7	Mr. Abdul	Member	8197628080
8	Mrs Shweta Kulkarni	Member	9741601033
9	Mrs Saroja Koulapur	Member	9448381560

10. Anti-Ragging Committee

The institution has established a proactive **Anti-Ragging Committee** to ensure a safe and conducive learning environment, in compliance with the regulations of the All India Council for Technical Education, University Grants Commission, and directives of the Supreme Court of India. The committee plays a crucial role in maintaining discipline and promoting a ragging-free campus.

The Anti-Ragging Committee is chaired by the Head of the Institution and comprises senior faculty members, administrative staff, student representatives, parents, and external members such as local authorities, ensuring a comprehensive and unbiased approach. The institution has also formed Anti-Ragging Squads for continuous monitoring across the campus.

Grievances related to ragging can be reported through multiple channels such as helplines, complaint boxes, and online portals. All complaints are treated with strict confidentiality and are promptly investigated. Appropriate disciplinary actions are taken against offenders as per regulatory norms.

This structured approach supports Criterion 9 by ensuring effective governance, student welfare, and a transparent institutional framework, thereby contributing to overall institutional quality and safety.

Table 9.6.14: Anti-Ragging Committee

SL NO	NAME OF FACULTY	DESIGNATION	Contact No
1	Dr Vinita Patil	Chairperson	8792506036
2	Dr.Vivek Jaladi	Member	9986831615
3	Dr Sharanbasappa Shetkar	Member	9986788989
4	Asst Prof Sadhana C	Member	9739666394
5	Dr Sripal Reddy	Member	8892662330
6	Mr.Shivaling Reddy	Member	9972885352
7	Mrs Sujata Reddy	Member	7337855175
8	Mr Sangamesh A	Member	9483996261
9	Mr Suresh Chanshetty (Parents Representative)	Member	9986792323
10	Mr Tejas Kumbhar(Student)	Member	8792621420

The institution has constituted a vigilant **Anti-Ragging Squad** as part of its comprehensive anti-ragging mechanism to ensure continuous monitoring and prevention of ragging within the campus, in accordance with the guidelines of the All India Council for Technical Education, University Grants Commission, and directives of the Supreme Court of India. The squad functions under the supervision of the Anti-Ragging Committee and plays a proactive role in maintaining discipline.

The Anti-Ragging Squad comprises faculty members, administrative staff, and support staff who are assigned specific areas of the campus such as hostels, corridors, canteen, playgrounds, and other student interaction zones. The squad conducts regular and surprise inspections to ensure a ragging-free environment and to instill confidence among students, especially fresher's.

The squad is empowered to take immediate action in case of any suspected ragging activity and report the matter to the Anti-Ragging Committee for further investigation and disciplinary measures. Awareness initiatives, including orientation programs and display of anti-ragging guidelines at prominent locations, are regularly undertaken to educate students about the consequences of ragging.

Submit grievances through the LAEC online portal using the <https://docs.google.com/forms/d/e/1FAIpQLSfeuQh0I5KyUfEgFLaVha5EXTOUBYpSPnwlAptx6DBfjyqg/viewform> (https://docs.google.com/forms/d/e/1FAIpQLSfeuQh0I5KyUfEgFLaVha5EXTOUBYpSPnwlAptx6DBfjyqg/viewform) link or in writing.

Table 9.6.15: Anti-Ragging Squad Committee

SL NO	NAME	DESIGNATION	Position	Mobile No
1	Dr Vinita Patil	Principal	Convenor	8792506036
2	Prof. Anilkumar D	Assistant Professor	Co-Convenor	7892733255
3	Prof Srinivas Dukan	Assistant Professor	Member	8951535689
4	Prof Preeti	Assistant Professor	Member	9535635808
5	Prof Shruti Modi	Assistant Professor	Member	9060313999
6	Mr Pradeep Nayak	Librarian	Member	934117775

7	Mr Shivaling Reddy	Warden-Boys hostel	Member	9972885352
8	Mrs Shivleela	Warden-Girls hostel	Member	9901556369

11. Women Empowerment Cell.

Women empowerment is the process of enabling women to gain authority, self-reliance, and control over their lives by enhancing their ability to make strategic life choices. Aims to create a supportive environment for female students and faculty. It involves achieving gender equality through education, economic opportunities, political participation, and the elimination of violence and discrimination, allowing women to fully participate in all societal activities. Organizing workshops, seminars, and guest lectures to enhance the skills and knowledge of female students.

Implementing policies and programs that prevent discrimination and promote gender amity. Sharing knowledge and skills to foster self-reliance and self-sufficiency among women. These efforts are crucial in breaking down barriers and ensuring that women have equal opportunities in engineering fields. By actively participating in these initiatives, LAEC making significant strides towards gender equality and empowering women to excel in their careers.

Table 9.6.16: Women's Empowerment Cell

SL.No	Name of the Staff	Designation	Contact No	Email Id
1	Dr. Vinita Patil Principal, LAEC	Chair Person	8792506032	vinita.pratapur@gmail.com
2	Mrs. Preeti K	Senior Faculty Member	9535635808	preeti.mise@gmail.com
3	Mrs. Sahana Patil	Member	9036526169	suhan6130@gmail.com
4	Mrs. Shruti Modi	Member	9060313999	modi21shruti@gmail.com
5	Mrs. Shilpa Chanda	Member	9731051555	shilpasharnale@gmail.com
6	Dr. Umatai Deshmukh	External Expert HOD of OBG, BRIMS	9448960859	lingarajappaengg@gmail.com
7	Dr. Lakshmi Maka Registrar, SUK, KLB	External Expert	9731794776	lingarajappaengg@gmail.com
8	Mrs. Jasmineet Kaur	External Expert	9886916015	lingarajappaengg@gmail.com
9	Mrs. Manjula Mulge 316	External Expert Inner wheel District Chairman	7019485056	lingarajappaengg@gmail.com
10	Mrs. Sujata Mallapure	External Expert	9845425629	lingarajappaengg@gmail.com

12. Disciplinary Committee.

RULES AND REGULATIONS OF THE DISCIPLINE COMMITTEE

All faculty members and students are hereby informed that strict adherence to the following rules and regulations is mandatory in order to uphold discipline and maintain a positive and professional academic environment. Any violation of these rules will attract disciplinary action as deemed appropriate by the Discipline Committee and the Institution.

Table 9.6.17: Members of Disciplinary Coordinators

SL.No	Name of the Staff
1	Mr. Srinivas D
2	Mr. Sudhir A
3	Mr. Amarnath
4	Mr. Kalyan rao
5	Mrs. Pallavi Bashetty
6	Mr. Basawaraj C
7	Mr. Prashanth Ghongade

A. FOR FACULTY MEMBERS:

- All faculty must wear their ID cards while on campus. Failure to comply will result in a penalty.
- Faculty members should report to their scheduled classes at least 5 minutes before the start time.
- Faculty members must not leave the class until the next lecturer arrives, and must ensure smooth transition between sessions.
- Students must not be allowed to leave the classroom immediately after the lecture ends. Faculty should dismiss the class in a disciplined manner.
- Usage of mobile phones during class hours is strictly prohibited. Faculty must leave their phones in their respective cabins before entering classrooms.
- Faculty must call absentee students immediately after class and submit the list of absentees to the respective Class Coordinator after each period.
- Faculty are responsible for ensuring students do not loiter in corridors, use mobile phones, or sit in canteens during class hours. Faculty have the authority to take immediate action against any such misconduct.

B. FOR STUDENTS:

All faculty members and students are expected to comply with these regulations without exception. Let us collectively contribute to fostering a disciplined and respectful educational environment.

- Wearing a valid ID card and uniform on campus is compulsory. Non-compliance will result in a fine.
- Students must maintain a minimum of 85% attendance in each subject.
- Leave applications must be submitted in advance and approved by the respective Class Coordinator and HOD.
- Students must respect faculty, staff, and peers. Any form of verbal abuse, bullying, or harassment is strictly prohibited.
- The use of mobile phones in classrooms, corridors, or laboratories is strictly forbidden. If found, the phone will be confiscated permanently.
- Disruptive behaviour, such as loud talking, phone usage, or engaging in unrelated activities, is not allowed during class hours.
- Use of laptops, smart watches, or other digital devices during exams is strictly prohibited.
- Students must carry valid ID cards, wear uniforms, and maintain silence in the examination hall.
- Unauthorized items such as notes, books, or electronic gadgets are not permitted during exams.
- Students must keep classrooms and campus areas clean and avoid causing any damage to institutional property.
- Any violation of the above rules may lead to penalties such as fines, suspension, expulsion, or loss of marks, based on the severity of the offense.

9.6.2.1 Principal

The responsibilities of a principal in the college typically:

Overseeing the academic standards and majorly in fulfilling the admissions and ensuring that the institution meets necessary requirements. Managing faculty members, including recruitment, performance evaluation, and curriculum development. Ensuring the well-being of students through various programs and initiatives. Overseeing the administrative functions, including budget management and compliance with educational policies. Participating in governance structures and ensuring effective communication with stakeholders. These responsibilities are crucial for fostering a supportive learning environment and maintaining the institutions academic integrity. Major role is held in reviewing the results and improving them regularly by taking the required measures and concentrating in placement drives.

The principal conduct meeting with department heads minimum twice in a month and sometimes meeting is also conducted directly with faculties whenever required. The details of few meeting dates are provided below.

Table 9.6.18: Meeting of Principal with Department heads.

Year	Meeting Number	Date	No. of members attended
2021	1	13-02-2021	10

2021	2	31-03-2021	8
2021	3	15-06-2021	4
2021	4	14-07-2021	7
2021	5	24-11-2021	9
2022	6	04-01-2022	9
2022	7	22-02-2022	8
2022	8	06-05-2022	8
2023	9	19-01-2023	8
2023	10	19-03-2023	4
2023	11	08-06-2023	7
2023	12	16-10-2023	5
2024	13	22-06-2024	8
2024	14	01-07-2024	8
2024	15	16-08-2024	7
2024	16	24-10-2024	8
2024	17	11-11-2024	8
2025	18	29-01-2025	6
2025	19	03-02-2025	8
2025	20	22-04-2025	9
2025	21	21-05-2025	9
2025	22	25-06-2025	10
2025	23	23-07-2025	9
2025	24	01-08-2025	10
2025	25	08-09-2025	8

2025	26	27-10-2025	7
2025	27	05-11-2025	5
2025	28	20-12-2025	7
2026	29	21-01-2026	11
2026	30	17-02-2026	7
2026	31	18-03-2026	9

Table 9.6.19: Meeting of Principal with faculties.

Year	Meeting Number	Date	No. of members attended
2021	1	27-10-2021	21
2022	2	26-8-2022	25
2023	3	7-6-2023	22
2023	4	3-11-2023	38
2024	5	15-2-2024	30
2024	6	21-8-2024	5
2024	7	23-10-2024	29
2025	8	6-9-2025	18
2025	9	10-10-2025	16
2026	10	21-2-2026	42

9.6.2.2 Head of Department (HOD)

The **Head of Department (HOD)** is responsible for the **academic and administrative management** of a specific department (like CSE, ECE, Mechanical, etc.).Plans and organizes teaching activities Ensures syllabus completion on time, Maintains quality of teaching as per All India Council for Technical Education guidelines Implements curriculum approved by the Academic Council.

- Allocates subjects and workload to faculty
- Monitors teaching performance and guides faculty members
- Monitors student attendance and academic performance
- Addresses student academic issues and grievances
- Prepares department timetable and academic calendar
- Plans seminars, workshops, and guest lectures
- Ensures proper functioning of labs and equipment
- Identifies needs for new equipment and facilities
- Prepares departmental budget
- Ensures effective use of resources and funds
- Encourages research, projects, and publications
- Promotes innovation and industry collaboration

- Acts as a link between faculty, students, and Principal
- Communicates departmental needs to higher authorities
- Maintains academic standards
- Supports accreditation processes (NBA/NAAC)
- Maintains departmental records and reports
- Conducts meetings and implements institutional policies

Table 9.6.20: Meeting of Head of Department (ECE) with faculty members

Year	Meeting Number	Date	No. of members attended
2020	1	18-02-2020	7
2021	2	27-02-2021	6
2021	3	31-03-2021	6
2021	4	24-03-2021	5
2021	5	07-10-2021	8
2021	6	03-12-2021	7
2022	7	22-02-2022	6
2022	8	10-05-2022	7
2022	9	10-10-2022	8
2022	10	21-10-2022	8
2023	11	22-02-2023	6
2023	12	16-03-2023	7
2023	13	18-04-2023	5
2023	14	13-06-2023	8
2023	15	17-08-2023	6
2023	16	22-09-2023	7
2023	17	6-10-2023	8
2024	18	05-02-2024	7

2024	19	10-02-2024	5
2024	20	17-04-2024	7
2024	21	14-06-2024	7
2024	22	15-08-2024	8
2024	23	02-09-2024	6
2025	24	11-22-2025	8
2025	25	21-03-2025	7
2025	26	22-4-2025	7
2025	27	17-6-2025	6
2025	28	19-8-2025	8
2025	29	16-9-2025	8
2025	30	17-10-2025	5
2025	31	18-12-2025	7
2026	32	17-02-2026	6

9.6.2.3 Training and Placement Cell

The Training and Placement Cells play a crucial role in preparing students for their future careers. They offer a range of services to enhance students employability, including:

Internships and Workshops: These provide hands-on experience and exposure to industry practices.

Campus Placement: They facilitate the process of securing placements for final year students, often in collaboration with industry partners.

Career Guidance and Counselling: These services help students navigate their career paths and prepare for interviews. **Soft Skills Development:** They focus on developing essential soft skills like communication, teamwork, and problem-solving.

Pre-Placement Talks: These are organized to familiarize students with the corporate environment and expectations. These cells are instrumental in transforming students into well-rounded professionals ready for corporate challenges, ensuring they are equipped with the necessary skills and confidence to succeed in the competitive job market

Table 9.6.21: Meeting of Training and Placement Cell

Year	Meeting Number	Date	No. of members attended
2022	1	08-11-2022	5
2023	2	02-02-2023	11
2024	3	13-03-2024	6
2024	4	17-07-2024	7

2024	5	11-09-2024	6
2025	6	28-03-2025	8
2025	7	01-08-2025	6
2025	8	16-09-2025	5
2025	9	29-10-2025	7
2026	10	10-03-2026	6

9.6.2.4 Research and Development (R&D) Cell

Research and Development (R&D) Cell in college responsible for:

Encouraging research culture: R&D promote research among faculty and students, encouraging them to engage in academic, sponsored, and collaborative research projects.

Facilitating research projects: R&D help in the preparation and submission of proposals to government agencies for funded projects and coordinate research activities among departments.

Promoting interdisciplinary collaboration: R&D encourages multi-disciplinary research and collaborations with other organizations.

Supporting faculty and students: R&D assist in securing patents, guiding researchers in filing patents, and developing strategies for maximizing faculty success in gaining external research funding.

Organizing events: R&D organize conferences, workshops, seminars, and training programs to enhance research skills and knowledge.

Building research capacity: R&D work on developing the research capacity of faculty members and students through various activities and events related to research.

9.6.3 Service Rules and Procedures:

Service Rules and Procedures are subject to the following conditions.

1. Your appointment will, in the first instance, be on probation for a period of two years from the date of appointment. After which your service may be confirmed.
2. Your service may be transferred to any other Institution of the Sangha now in existence or likely to be established in future.
3. In addition to your regular duties you are expected to perform such other extracurricular duties as may be assigned to you by the Principal and the concerned authorities.
4. Your appointment is subject to the terms & conditions of the service rules in force and as well as those that may be here in after made by the Sangha in the interest of convenience and discipline.
5. It is presumed that you have read the rules and regulations of the service made by the Sangha for its employees and agree to abide by them before joining the service.
6. Your appointment is subject to the approval of the Govt. of Karnataka/University/AICTE
7. In case of any termination or resignation a notice of one month shall be served on either side (Employer and Employee)

Recruitment Policies

1. General principles

The institution follows well-defined **general principles for recruitment** to ensure transparency, fairness, and quality in human resource management. Recruitment is carried out through a **transparent, merit-based, and unbiased process**, aimed at selecting competent and qualified candidates who can contribute effectively to academic excellence and institutional growth.

The recruitment procedures strictly adhere to the norms and guidelines prescribed by the All India Council for Technical Education, University Grants Commission, and the affiliating university. These regulatory frameworks ensure that the institution maintains the required standards in terms of faculty qualifications, experience, and overall competency.

The institution is committed to providing **equal opportunity to all candidates**, irrespective of gender, caste, religion, or socio-economic background. The selection process is designed to eliminate bias and promote inclusivity, ensuring that appointments are based solely on merit, qualifications, and performance during the selection process.

To maintain transparency, recruitment notifications are widely advertised, and selection procedures are conducted through properly constituted committees involving subject experts and management representatives. The entire process is documented and periodically reviewed to ensure compliance with statutory requirements and continuous improvement.

These general principles contribute significantly to effective governance and institutional integrity under Criterion 9 by ensuring a fair, accountable, and inclusive recruitment system, thereby strengthening the quality of human resources within the institution.

2. Workforce Planning

- The institution follows a systematic and need-based **workforce planning mechanism** to ensure optimal staffing in line with academic and administrative requirements. The department-wise faculty requirement is carefully identified based on multiple parameters, including student intake, prescribed faculty–student ratio norms of the All India Council for Technical Education, and the introduction of new programs or specializations. This structured approach ensures that each department is adequately staffed to maintain quality teaching-learning processes and academic effectiveness.

- The institution strictly adheres to AICTE guidelines for maintaining the appropriate faculty–student ratio, thereby ensuring personalized attention to students and effective delivery of the curriculum. Additionally, expansion plans such as the introduction of emerging areas, interdisciplinary programs, and advanced specializations are also considered while assessing human resource requirements.
- All staffing proposals are reviewed and approved by the Governing Council Member and Sangha Management, ensuring alignment with institutional goals, financial planning, and long-term strategic development. This approval mechanism enhances accountability and ensures that recruitment decisions are taken at the appropriate administrative level.

3. Recruitment Procedure

The institution follows a well-structured and transparent **recruitment procedure** to ensure the selection of qualified and competent faculty and staff, in accordance with the guidelines of the All India Council for Technical Education and affiliating university norms. The recruitment process begins with a formal advertisement published in leading newspapers, the institution's website, and recognized job portals to ensure wide outreach and equal opportunity.

Applications received are systematically screened based on predefined criteria such as academic qualifications, teaching or industry experience, and area of specialization. Shortlisted candidates are then invited to participate in a comprehensive selection process, which may include a written test (where applicable), technical interview, and a demo lecture to assess teaching skills and subject expertise. A final interaction with the management or HR panel is conducted to evaluate overall suitability.

The selection process is carried out by a duly constituted Selection Committee comprising the Principal, subject experts, management representatives, and, where required, a nominee from the affiliating university. This ensures transparency, objectivity, and adherence to regulatory standards.

All stages of the recruitment process are properly documented, and decisions are made based on merit and performance. The institution periodically reviews its recruitment practices to align with evolving academic needs and regulatory requirements.

4. Eligibility Criteria

The institution strictly follows the eligibility criteria prescribed by the All India Council for Technical Education for the recruitment of faculty members to ensure high academic standards and quality education. For the position of Assistant Professor, candidates are required to possess a postgraduate degree (M.Tech/M.E.) in the relevant discipline with the prescribed academic performance. For higher positions such as Associate Professor and Professor, a Ph.D. in the relevant field along with significant teaching, research, and/or industry experience is mandatory.

In addition to the basic eligibility criteria, the institution gives preference to candidates who demonstrate strong academic and professional credentials. Emphasis is placed on research contributions, including publications in reputed journals, participation in funded research projects, and the development of patents. Candidates with relevant industry experience are also preferred, as they bring practical insights that enhance the teaching-learning process and improve student employability.

The selection process is designed to assess both academic excellence and practical expertise, ensuring that faculty members contribute effectively to curriculum delivery, research, and institutional development. This approach aligns with the institution's objective of promoting innovation, interdisciplinary learning, and industry interaction.

By adhering to AICTE norms and prioritizing research and industry exposure, the institution ensures the recruitment of highly qualified faculty.

5. Appointment & Probation

Your appointment is subject to the following conditions.

1. Your appointment will, in the first instance, be on probation for a period of two years from the date of appointment. After which your service may be confirmed.
2. Your service may be transferred to any other Institution of the Sangha now in existence or likely to be established in future.
3. In addition to your regular duties you are expected to perform such other extracurricular duties as may be assigned to you by the Principal and the concerned authorities.
4. Your appointment is subject to the terms & conditions of the service rules in force and as well as those that may be here in after made by the Sangha in the interest of convenience and discipline.
5. It is presumed that you have read the rules and regulations of the service made by the Sangha for its employees and agree to abide by them before joining the service.
6. Your appointment is subject to the approval of the Govt. of Karnataka/University/AICTE
7. In case of any termination or resignation a notice of one month shall be served on either side(Employer and Employee)

6. Salary & Benefits

The institution follows a structured and equitable **salary and benefits policy** to attract and retain qualified faculty and staff, in accordance with the guidelines of the All India Council for Technical Education and University Grants Commission, along with the norms of the Sangha management. The salary structure is designed to be competitive and commensurate with qualifications, experience, and responsibilities, ensuring fairness and consistency across all levels.

In addition to the basic pay, the institution provides a range of **employee welfare benefits** to support the well-being and job satisfaction of its staff. These include statutory benefits such as Provident Fund (PF), which ensures long-term financial security, and medical benefits to support healthcare needs. The institution also offers various types of leave, including Casual Leave (CL) and maternity leave, in compliance with applicable regulations and institutional policies.

These benefits are aimed at creating a supportive and motivating work environment, enabling faculty and staff to perform their duties effectively while maintaining a healthy work-life balance. The institution periodically reviews its compensation and benefits structure to align with regulatory updates and industry standards.

7. Promotion Policy

The institution follows a well-defined and performance-driven **promotion policy** to ensure career growth and professional development of faculty members. Promotions are granted based on a comprehensive evaluation system that considers multiple parameters, ensuring fairness, transparency, and merit-based advancement in line with the guidelines of the All India Council for Technical Education.

The key criteria for promotion include **teaching performance**, which is assessed through student feedback, academic results, and innovative teaching methodologies. Equal importance is given to **research contributions**, such as publications in reputed journals, participation in funded projects, patents, and involvement in consultancy activities. **Experience** in teaching and academic administration is also considered to ensure that faculty members possess the required maturity and expertise for higher responsibilities.

In addition, **institutional service** plays a significant role in the promotion process. Faculty members are evaluated based on their involvement in administrative duties, participation in committees, contribution to accreditation activities, and overall commitment to institutional development.

The institution adopts a structured appraisal system, and promotions are recommended by a duly constituted committee after thorough review of performance indicators. The process is well-documented to maintain transparency and accountability.

The institution motivates the faculty for publishing the papers in, National, international conference and journals.

9.6.2 Transparency (5)

Institute Marks : 3.00

1. Information on policies, rules and processes are made available on institute website . The link for same is as mentioned below

<http://www.lingaraj-aapaec.in/service-rules/>

2. Agendas and minutes of the Governing Body are made available on institute website . The link for same is as mentioned below

<http://www.lingaraj-aapaec.in/governing-body>

9.7 Budget Allocation, Utilization, and Public Accounting at Institute Level (12)

Total Income at Institute level: For CFY,CFYm1,CFYm2 & CFYm3

CFY : (Current Financial Year),

CFYm1 : (Current Financial Year minus 1),

CFYm2 : (Current Financial Year minus 2) and

CFYm3 : (Current Financial Year minus 3)

Table 1 - CFY 2025-26

Total Income 80286198				Actual expenditure(till...):	Total No. Of Students	Expenditure per student
Fee	Govt.	Grants	Other sources(specify)			
75137712	0	1192500	3955986	66097796	1043	63372.77

Table 2 - CFYm1 2024-25

Total Income 58953474				Actual expenditure(till...):	Total No. Of Students	Expenditure per student
Fee	Govt.	Grants	Other sources(specify)			
57058103	0	23500	1871871	55922609.14	942	59365.83

Table 3 - CFYm2 2023-24

Total Income 44194039.60				Actual expenditure(till...):	Total No. Of Students	Expenditure per student
Fee	Govt.	Grants	Other sources(specify)			
42278459	0	23500	1892080.60	49633621.35	775	64043.38

Table 4 - CFYm3 2022-23

Total Income 43187971.28				Actual expenditure(till...):	Total No. Of Students	Expenditure per student
Fee	Govt.	Grants	Other sources(specify)			
40226914.28	0	18000	2943057	41831027.45	549	76194.95

Items	Budgeted in 2025-26	Actual Expenses in 2025-26 till	Budgeted in 2024-25	Actual Expenses in 2024-25 till	Budgeted in 2023-24	Actual Expenses in 2023-24 till	Budgeted in 2022-23	Actual Expenses in 2022-23 till
Infrastructure Built-Up	600000C	582369C	500000C	6004315	300000C	337265E	4000000	4046844
Library	100000C	730153	100000C	1288467	100000C	798425	800000	463542
Laboratory equipment	400000C	397212C	300000	191330	350000C	2112598	4000000	418661E
Teaching and non-teaching stal	360000C	348446C	300000C	3429594	275000C	2810922	2500000	256445E

Outreach Programs	800000	878292	1000000	1247883	350000	534040	250000	301602
R&D	4000000	410423€	800000	828061	300000	210520	300000	510520
Training, Placement and Indust	650000	1187500	300000	293950	300000	300900	300000	200000
SDGs	200000	47671	100000	100000	100000	100000	100000	100000
Entrepreneurship	150000	150000	100000	150000	100000	200000	100000	150000
Others, specify	1200000	143594€	1000000	1152265	7500000	138952€	5000000	622731€
Total	64800000	66097796	48600000	55922610	43650000	49633621	39850000	41831027

9.8 Program Specific Budget Allocation, Utilization (8)

Total Income at Institute level: For CFY,CFYm1,CFYm2 & CFYm3

CFY: (Current Financial Year),

CFYm1 : (Current Financial Year minus 1),

CFYm2 : (Current Financial Year minus 2) and

CFYm3 : (Current Financial Year minus 3)

Table 1 :: CFY 2025-26

Total Budget 6060000		Actual expenditure (till...): 6153643		Total No. Of Students 190
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
6000000	6060000	6153643	102.5	32387.59

Table 2 :: CFYm1 2024-25

Total Budget 1210000		Actual expenditure (till...): 1275169		Total No. Of Students 185
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
1200000	1210000	1275169	105	6892.81

Table 3 :: CFYm2 2023-24

Total Budget 395000		Actual expenditure (till...): 341194		Total No. Of Students 134
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
500000	395000	341194	86	2546.22

Table 4 :: CFYm3 2022-23

Total Budget 520000		Actual expenditure (till...): 514972		Total No. Of Students 91
Demanded	Actual Allocated	Actual Expenditure	% Spent	Expenditure per student
500000	520000	514972	99	5659.03

Items	Budgeted in 2025-26	Actual Expenses in 2025-26 till	Budgeted in 2024-25	Actual Expenses in 2024-25 till	Budgeted in 2023-24	Actual Expenses in 2023-24 till	Budgeted in 2022-23	Actual Expenses in 2022-23 till
Laboratory equipment	400000	352112	100000	93334	100000	85786	50000	30000
Software	600000	525000	50000	10000	10000	5000	200000	250000
SDGs	10000	5900	10000	8000	10000	7000	10000	6000
Support for faculty developmen	25000	35876	25000	48443	25000	30000	10000	10000
R & D	400000	3942581	500000	623764	25000	27000	25000	10000
Industrial Training, Industry exp	25000	10000	25000	60000	25000	15000	25000	15000
Miscellaneous Expenses*	100000	1282174	500000	431628	200000	171408	200000	193972
Total	6060000	6153643	1210000	1275169	395000	341194	520000	514972

9.9 Quality of Learning Resources (Hard/Soft) (5)

Lingaraj Appa Engineering College, Bidar provides adequate and quality learning resources in both physical and digital forms to support the teaching-learning process. These resources include textbooks, reference books, journals, e-books, e-journals, digital learning platforms, laboratories, and ICT facilities.

The Central Library has a good collection of textbooks, reference books, and national and international journals, which support academic activities and improve student learning. The department laboratories are well equipped with modern equipment and required software tools, helping students to gain practical knowledge and hands-on experience.

In addition, the institution provides access to digital learning platforms such as NPTEL, SWAYAM, MOOCs, and the National Digital Library. The campus is Wi-Fi enabled, allowing students to access learning resources through computer laboratories, the digital library, and departmental facilities. The institution also promotes self-learning through online courses, project-based learning, seminars, workshops, and other digital resources.

9.9.1 Learning Resources Available

Table 9.9.1.1 The table below shows the different learning resources available in the institution. These resources support both academic learning and self-learning for students.

Sl. No.	Facility	Description / Facilitates available at the institute
1.	Digital Library	The college has a digital library with 10 computers with internet and wi-fi facility. All the students are having access to various e-journals.
2	E-learning resources	Online materials: In addition to the syllabus mentioned in the curriculum, the students have got scope for self-learning through the e-content (MOOCs) provided in the national and international portals such as: <ul style="list-style-type: none"> o NPTEL, Link: https://nptel.ac.in/course.php?disciplineId=112/ (https://nptel.ac.in/course.php?disciplineId=112/) o SWAYAM, Link: https://swayam.gov.in/Institutions/ (https://swayam.gov.in/Institutions/) o MOOC, Link: https://www.edx.org/ (https://www.edx.org/) o National Digital Library of India (NDL), https://ndl.iitkgp.ac.in/ (https://ndl.iitkgp.ac.in/)
3.	Department Laboratories	State of the Art Laboratories provide perfect atmosphere for design, fabrication, testing and research on various technical concepts.
4.	Events that promote self-learning	<ol style="list-style-type: none"> 1. Engineers 'day 2. Techno fest 3. Seminars 4. Workshops 5. Conferences 6. Guest Lectures 7. Technical models / paper presentations outside the institution 8. Industrial Tours 9. Model Exhibition cum Competition (Intra/Inter) 10. Project exhibition
5.	Professional Body Activities	Various technical contests and activities by Professional bodies promote self-learning

9.9.2 Availability and Accessibility of Learning Resources

The learning resources in the institution are easily accessible to both students and faculty.

A) Physical Access

1. Study hours are available with faculty guidance especially for residential students from 9 PM to 11 PM in college library.
2. Reading and reference sections are provided.
3. Department laboratories are accessible as per academic requirements.

B) Digital Access

1. College has 300Mbps Wi-Fi facility and 4Mbps for QPDS (Question Paper Delivery System).
2. Students and faculty can access e-resources through the digital library and computer systems.
3. 1 GB Internet Facility for COE. (Centre of excellence).

9.9.3 Library Service Details

Table 9.9.3.1: Table below shows the library holdings and facilities available in the institution.

Total Area of the Library	400Sqm
Seating Capacity	150 Students
Timings of the Library Regular During Exams	10:00 A.M. to 11:00 P.M.
Vacation	24Hours
	10:00 A.M. to 5:00 P.M.
Total Books in the Library	Titles: 2915 Volumes: 32287
Average number of books added during the last Three years	2024-25:2107 2023-24:1686 2022-23:1147
Electronic e-books, e-journals	E-journal and E-Books –VTU Consortium (MAPMyaccess)
Special Collections(eg.Textbooks, reference books, standard, patents)	Textbook and Reference books
Question Banks	Yes

Table 9.9.3.2: The table below shows the tools deployed by the library.

Electronic Resource Management package for e-journals	Yes
Federated searching tools to search articles in multiple databases	Yes, VTU Consortium (MAPMyaccess)
Library Website	YES
Inhouse/remote access to e-publications	Yes, Remote and IP based

Table 9.9.3.3: The table below shows the digital learning resources available in the institution

VTU Consortium E-Resources Details (2025–26)			
E-Journals			
Sl. No	Resource Type	Name of Database	No. of Titles
1	E-Journals	IEEEExplore_Global_P OPALL	2004
2	E-Journals	Elsevier Science Direct Journals	405
3	E-Journals	Springer Nature	410
4	E-Journals	Taylor and Francis Journals	286
5	E-Journals	Emerald Publishing Management	213
6	E-Journals	Emerald Publishing ICE	29
7	E-Journals	EBSCO Engineering Suite	6350
	Total		7693
E-Books (Paid)			
Sl. No	Resource Type	Name of Database	No. of Titles
1	E-Books	EBSCO Engineering Suite	2200
2	E-Books	PACKT	2300
3	E-Books	New Age International	450
4	E-Books	QuickIm	185
5	E-Books	Edsol Informatic	20
	Total		5155
E-Learning Video Resources (Paid)			

Sl. No	Type	Resource Name	Count
1	Video Courses	IEEE Blended E-Learning	70
2	Video Courses	PAT Technology Video Courses	14
3	Software	Drill Bit Plagiarism Detection	
4	Administrative Tool	CELUS	

Skill Development Courses (Open Source)

Sl. No	Platform/Resource
1	Quicklrn
2	LinkedIn Learning
3	NPTEL YouTube Channel
4	MIT OpenCourseWare
5	E-Shodha
6	MOOC (Open Source)

Table 9.9.3.4 The table below shows the ICT facilities available in the library.

Library Automation	Yes, LIBsoft
Total Number of computers for general access	10
Total number of printers for general access	1
Internet band with speed	100 Mbps
Institutional repository	Yes
Content Management system for e-learning	YES
Participation in resource sharing networks/consortia	VTU Consortium

Table 9.9.3.5 The table below shows the monthly usage details of the library.

Average Number of walk-ins	760
Average number of books issued/returned	284
Ratio of library books to students enrolled	1:31
Average number of e-resources downloaded/printed	100

Table 9.9.3.6 The table below shows the specialized services provided by the library.

Reference	Yes
Reprography/Scanning	Yes
Information deployment and notification	Through Notice Board, Email and Bulk SMS
Internet access	Yes
Downloads	Yes
Printouts	Yes
Reading list/Bibliography compilation	Yes, LIB soft
In house/remote access to e-resources	Yes
User orientation	Yes
Module question bank & papers	yes

Table 9.9.3.7 The table below shows the borrower privileges provided by the library.

Category	Privileges	Duration
Faculties	15	NA
Staff	12	NA
Student-General	10	One Semester
Students-Book Bank	5+2	One Semester
Student- SC/ST	5	One Semester

The Login credentials to access VTU consortium is mentioned as follows.

Lingaraj Appa Engineering College Website: www.lingaraj-appaec.in (<http://www.lingaraj-appaec.in/>)

VTU Consortium Subscribed Link: <https://access.vtuconsortium.com/lec> (<https://access.vtuconsortium.com/lec>)



The access details of the VTU Consortium are provided below for students and faculty. Through this link, users can access a wide range of digital resources such as e-journals, e-books, and online learning materials. These resources support academic activities, help in preparing assignments and projects, and improve overall subject understanding.

Students can use these resources anytime through the internet, which makes learning more flexible and convenient. It also helps them explore topics beyond the syllabus and develop self-learning habits. Faculty members also use these resources for teaching, research, and updating their subject knowledge.

9.9.4 Support for Self-Learning Activities

The institution strongly promotes self-learning as an essential component of academic and professional development. Self-learning enables students to develop independence, analytical ability, problem-solving skills, and lifelong learning habits.

To strengthen this practice, the institution provides access to e-journals, e-books, digital learning platforms, laboratories, project work, and extended library services. Students are encouraged to explore concepts beyond the prescribed curriculum and participate in various academic and co-curricular activities.

Scope of Self-Learning

The institution encourages self-learning through different activities such as:

- Online learning platforms like NPTEL, SWAYAM, webinars, and MOOCs
- Competitive events like hackathons, coding competitions, and project expos
- Academic activities such as assignments, seminars, workshops, and guest lectures
- Professional and club activities through IEEE, IETE, and other technical groups
- Industry exposure through industrial visits, conferences, and symposiums
- Additional opportunities like value-added courses and certification programs

Online Learning Resources

To support self-learning, the institution provides access to:

- E-textbooks
- Previous year question papers
- Reference materials
- E-books and online journals
- Smart classrooms and ICT-enabled platforms

Evaluation of Self-Learning

The effectiveness of self-learning is checked through:

- Student performance in assignments, projects, and exams
- Participation in competitions, hackathons, and technical events
- Feedback from students about learning resources
- Tracking enrolment and completion of courses like NPTEL and MOOCs
- Faculty evaluation of student participation in seminars, presentations, and research

These methods help improve self-learning practices and support better academic development.

9.9.4.1 NPTEL / SWAYAM Courses for Enhanced Learning

NPTEL and SWAYAM courses help students learn beyond their regular syllabus. These courses help students improve their understanding and fill gaps in their knowledge.

At the beginning of each academic year, students are informed about suitable NPTEL and SWAYAM courses related to their subjects and interests. They are encouraged to enroll in and complete at least one online course as part of their self-learning.

By taking these courses, students can learn from expert teachers of top institutions. They also get access to video lectures, discussion forums, online tests, and other digital materials. This helps them learn at their own pace and develop continuous learning habits.

Table 9.9.4.1 List of MOOC Courses attended and Completed by Students

Sr. No.	Name of the course attended	USN	Name of the student	Certificate on batch
1	Privacy & security in online social media	3LA23SCS01	AFREEN BEGUM	Elite GOLD
2	Machine learning for earth system sciences	3LA23SCS01	AFREEN BEGUM	Elite SILVER
3	Privacy & security in online social media	3LA23SCS07	SAYEMA	Elite SILVER
4	Machine learning for earth system sciences	3LA23SCS07	SAYEMA	Elite GOLD
5	Reinforcement learning	3LA23SCS02	ASHWINI	Elite GOLD
6	Privacy & security in online social media	3LA23SCS02	ASHWINI	Elite GOLD
7	Machine learning for earth system sciences	3LA23SCS09	VISHAL NIRNEY	Elite GOLD
8	Privacy & security in online social media	3LA23SCS09	VISHAL NIRNEY	Elite GOLD
9	Machine Learning for Earth System Sciences	3LA23SCS03	NEHA MASHETTY	Elite GOLD
10	Privacy & security in online social media	3LA23SCS03	NEHA MASHETTY	Elite GOLD

11	Privacy & security in online social media	3LA23SCS06	SABAAYAAN	-
12	Machine Learning for Earth System Sciences	3LA23SCS06	SABAAYAAN	Elite GOLD
13	Privacy & security in online social media	3LA23SCS08	VIJAYALAXMI KOTTARGI	-
14	Reinforcement learning	3LA23SCS08	VIJAYALAXMI KOTTARGI	Elite SILVER
15	Privacy and Security in Online Social Media	3LA23SCS04	PALLAVI CHITME	-
16	Social Networks	3LA24SCS11	SHESHANK MASHETTY	Elite GOLD
17	Research Methodologies and IPR	3LA24SCS11	SHESHANK MASHETTY	Elite GOLD
18	Affective Computing	3LA24SCS11	SHESHANK MASHETTY	Elite GOLD
19	Social Networks	3LA24SCS01	ABHISHEK JACOB	Elite SILVER





Table 9.9.4.2 NPTEL courses attended and completed by Faculties

Sl.no	Name of Course Attended	Name of the Faculty	Course Duration	Certificate on Grade %
1	Artificial Intelligence: Concepts and Techniques	DR JALADI VIVEK	12 WEEKS	60%
2	Big Data Computing	SHRUTI MODI	8 WEEKS	60%
3	Big Data Computing	VIJAYALAXMI K	8 WEEKS	72%
4	Big Data Computing	NEHA MASHETTY	8 WEEKS	73%



Elite

NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)



This certificate is awarded to

DR JALADI VIVEK

for successfully completing the course



Artificial Intelligence: Concepts and Techniques

with a consolidated score of **60** %

Online Assignments	21.25/25	Proctored Exam	39/75
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Total number of candidates certified in this course: **6785**

Jul-Oct 2025

(12 week course)

Prof. L. Umanand

NPTEL Coordinator & Chair, Centre for Continuing Education, IISc Bangalore



Indian Institute of Science Bangalore





Elite

NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)



This certificate is awarded to
VIJAYALAXMI K
for successfully completing the course

Big Data Computing

with a consolidated score of **72** %

Online Assignments	25/25	Proctored Exam	47.25/75
--------------------	-------	----------------	----------

Total number of candidates certified in this course: **5740**

Prof. B. V. Ratish Kumar
Chairman, Centre for Continuing Education
IIT Kanpur

Aug-Oct 2025

(8 week course)

Prof. Satyaki Roy
NPTEL Coordinator
IIT Kanpur



Indian Institute of Technology Kanpur



Roll No: NPTEL25CS131S1159400139

To verify the certificate



No. of credits recommended: 2 or 3

9.9.5 Project-Based Learning (PBL)

The institution encourages project-based learning to give students practical experience. Students start doing mini projects from the first semester itself. Project exhibitions are conducted in the college on Engineer's Day, and poster presentations are organized on Science Day to showcase student work. Students are also encouraged through cash prizes and recognition.

Department-wise PBL Activities

Department-wise PBL Activities shows the number of project-based learning activities conducted by each department. It helps to understand how different departments encourage students to work on projects and gain practical knowledge.

Project Exhibition and Science Day Activities

Project exhibitions and Science Day activities are organized in the institution to give students an opportunity to present their projects and ideas. Students display their models and posters, which helps them improve their practical knowledge, confidence, and communication skills.

Centenary Celebrated Sharnbasweshwar Vidya Vardhak Sangha's, Kalaburgi



Prof. Shivaram
Bhatkya Neel
Member of Karnataka
Department of Higher
Education



Prof. Rajesh
D. Sahay
Chairman
Department of Higher
Education, Bidar
District



Prof. Dr. Sharanappa Nasa
Member, Karnataka
Department of Higher
Education, Bidar
District



Prof. Dr. Sharanappa Nasa
Member, Karnataka
Department of Higher
Education, Bidar
District



Mahesh Babu
Bidar District



Shri Basavaraj Deshmukh
Secretary, I.A.C., Bidar
Secretary, D.V.G., Kalaburgi



LINGARAJ APPA ENGINEERING COLLEGE

Gornalli, Bidar

*Department of Electronics
and Communication Engineering*



Shri Sharanappa Deshmukh
In-charge, I.A.C., Bidar



Bharat Ratna
Sir M. Visvesvaraya

PROJECT EXHIBITION

on the occasion of Engineers Day

Date : **20-09-2024**

Venue : **ECE Lab**

PROJECT EXHIBITION ON THE OCCASION OF ENGINEERS DAY

Objectives of Project Exhibition

- To give students a chance to present their projects
- To improve practical knowledge
- To develop creativity and new ideas
- To improve communication and presentation skills
- To encourage teamwork among students
- To motivate students to learn beyond the syllabus
- To build confidence in students









**LINGARAJ APPA
ENGINEERING COLLEGE, BIDAR**



Invitation
You are cordially invited for
**ENGINEER'S & TEACHER'S DAY
CELEBRATION AND PROJECT EXHIBITION**

Time: 02:00 pm on 15th September 2025

Venue: Seminar Hall-1

With the Benign Blessings of

Vidya Bhandari Lingaikeya Poojya Dr. Sharanbaswappa Appa

86 Mahadevrao Periaadhyani, Sharnbasveshwar Sansthan, Kalaburagi

Former President, Sharnbasveshwar Vidya Vardhak Sangha, Kalaburagi, Founder Chancellor, Sharnbaswa University, Kalaburagi

Poojya Matoshree Dr. Dakshinini S. Appa

President, Sharnbasveshwar Vidya Vardhak Sangha, Kalaburagi

Hon'ble Chancellor, Sharnbaswa University, Kalaburagi

Trustee, Poojya Sharnbaswappa Appa Family Trust, Sharnbasveshwar Sansthan, Kalaburagi

Poojya Doddappa S. Appa

96 Mahadevrao Periaadhyani, Sharnbasveshwar Sansthan, Kalaburagi

Trustee, Poojya Sharnbaswappa Appa Family Trust, Sharnbasveshwar Sansthan, Kalaburagi

PRESIDE OVER BY

Sri Basavaraj S. Deshmukh

Secretary, Lingaraj Appa Engineering College, Bidar

Secretary, Sharnbasveshwar Vidya Vardhak Sangha, Kalaburagi

Member, BOG, Sharnbaswa University, Kalaburagi

Sri. Sharanbaswappa Deshmukh

Director,

Lingaraj Appa Engineering College,
Bidar

Dr. Uruti B. Deshmukh

BCD of BOG, BRIS

Director, Lingaraj Appa Engineering College, Bidar

Member, BOG, Sharnbaswa University, Kalaburagi

Chief Guest

Mr. Mayur

District Youth Officer, Bidar

Guest of Honour

Dr. Satish Pratapur

Principal,
Sri Basavanna & P. College Bidar

Judges For Project Exhibition

Dr. Masrath Begum

Professor @ IIT'S
Dept. of Information Science & Engg.
IITMRC, Bidar

Mr. Vijayaraj Shettagar

Senior Lecturer
Govt. Engineering College, Bidar

Mr. Mahesh Shigdar

Senior Lecturer
Govt. Engineering College, Bidar

Convener

Dr. Vinita Patil

Principal, LAEC Bidar

ORGANIZING COMMITTEE

- Dr. Vivek Jaladi** Professor & HOD,
Dept. of Computer Science & Engineering, LAEC, Bidar
- Dr. Sharanbaswappa Shetkar**
Professor & HOD, Dept. of ECE, LAEC, Bidar
- Dr. Vijayanand K.** Associate Professor & HOD,
Dept. of Mechanical Engineering, LAEC, Bidar
- Prof. Kirankumar M.** HOD,
Dept. of Civil Engineering, LAEC, Bidar
- Dr. Sangappa K.**
Professor & HOD, Dept. of EEE, LAEC, Bidar

Best Teacher Awardee

- Prof. Veeresh B.**
Dept. of Computer Science & Engineering
- Prof. Chaya B.**
Dept. of Electronics & Communication Engineering
- Prof. Chandrika B.**
Dept. of Electrical & Electronics Engineering
- Prof. Sudhir A.**
Dept. of Mechanical Engineering
- Prof. Kalyan Rao**
Dept. of Civil Engineering
- Prof. Anita W.**
Dept. of Humanities & Science
- Prof. Sangamesh A.**
Dept. of MBA

Program Details

- Prayer Song
- Condolence
- Welcome Speech
- Lighting of Lamp
- Sangha Anthem
- Guest Introduction & Felicitation
- Speech by Students
- Prize Distribution For Project Exhibition
- Awards to Best Teachers
- Address by the Guest
- Vote of Thanks

All are Cordially invited



PHOTOGRAPHS OF THE PROJECT EXHIBITION & PRIZE DISTRIBUTION:



The details of project-based learning activities conducted during the assessment period are presented in the following table.

Table 9.9.7 PBL Activities

Name of the Department	2022-2023	2023-2024	2024-2025
Mechanical Engineering	13	09	18
Civil Engineering	21	13	25
Computer Science and Engineering	18	40	48
Electronics and Communication Engineering	05	08	30
Electrical and Electronics Engineering	04	04	24

Outcomes of Project-Based Learning

- Students are able to apply theory to real-life problems
- Improves independent thinking and problem-solving skills
- Helps students understand how to complete a project step by step
- Improves time management and planning skills
- Builds confidence in presenting ideas
- Encourages teamwork among students
- Increases interest in learning and new ideas
- Some student projects are selected and funded in KSCST, which encourages innovation and research

Table: 9.9.8 Sample List of Mini Projects with Guides

Sl.No.	Name of the Student	USN	Topics	Project Guide
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1	Abdul Kareem Khan	3LA22CS001	Opti-Budget Engine – (AI Query-Driven Expense Management and Budget Monitoring System)	Dr.Vivek. Jaladi.
2	Md Khustar Ahmed	3LA22CS022		
3	Mohammed Aafzanuddin	3LA22CS028		
4	Syed Shah Mustafa Hussaini	3LA22CS052		
5	Aishwarya	3LA22CS002	Children Safety Device with Gps Tracker and Alert System	Dr.Sripal.Reddy.
6	Manikraj Bhande	3LA22CS021		
7	Sharon Sanjana	3LA22CS044		
8	Vinayak	3LA22CS056		
9	Aishwarya Reddy	3LA22CS003	Credit card fraud detection using Machine Learning	Dr.Vivek. Jaladi.
10	Sahana	3LA22CS037		
11	Sheetal	3LA22CS045		
12	Khushi	3LA22CS016		
13	Anamika	3LA22CS004	News Research Tool Using LangChain and OpenAI LLM	Prof.Basavaraj.Sedam.
14	Ankita	3LA22CS006		
15	Priya Mulge	3LA22CS034		
16	Supriya Rajkumar Kollure	3LA22CS050		
17	Anjali	3LA22CS005	Season based crop recommendation system.	Prof.Shruti.Modi.
18	Biradar Shrangeshwar	3LA22CS010		
19	Rajeshwari	3LA22CS036		
20	Shrusti	3LA22CS047		

21	Ashraf Unnisa	3LA22CS007		
22	Bushra Jabeen	3LA22CS011	Early depression detection using deep learning	Prof.Neelambika.H.
23	Misba Anam	3LA22CS027		
24	Bhagyashree	3LA22CS009		
25	Mohd Rehan	3LA22CS030	Pest Detection and Animal Trespassing Control Using Machine Learning	Prof.Aruna.K.
26	Nilambika	3LA22CS032		
27	Saikeerti	3LA22CS038		
28	Chaitanya	3LA22CS012	Intelligent system for retrieving victim data in emergency scenarios via biometric inputs	Prof.Basavaraj.Sedam.
29	Lakshmi	3LA22CS018		
30	Mahesh Biradar	3LA22CS019		
31	Harish Patil	3LA22CS015	Bidar proconnectify	Prof.Vinaya.S.
32	Krishna	3LA22CS017		
33	Md Sameer	3LA22CS025		
34	Sabir Mujawar	3LA23CS400		
35	Md Rezwan Ahmed	3LA22CS023	Real-Time Wire Rope Defect Detection Using Deep Learning	Prof.Basavaraj.Sedam.
36	Prajwal	3LA22CS033		
37	Shivukumar	3LA22CS046		
38	Syed Zeeshan Ahmed	3LA22CS054		
39	Mohammed Kaif	3LA22CS029	Real Time Fruit Quality Prediction Detection Using Deep Learning	Prof.Shruti.Modi.
40	Shaik Wasi(Quadri)	3LA22CS043		
41	Syed Mustafa Muzaffar	3LA22CS051		
42	Vishal	3LA22CS057		

43	Priyanka	3LA22CS035	Intelligent Cyber Threat Detection and response system using AI agents	Prof.Aruna.K.
44	Sanjana	3LA22CS040		
45	Savitri Mahadevappa H	3LA22CS042		
46	Sainath	3LA22CS039	Hybrid Approach of Cotton disease detection for enhanced crop health and yeild.	Prof.Neelambika.H.
47	Sarvesh	3LA22CS041		
48	Sujal Amman	3LA22CS048		
49	Sumeed	3LA22CS049		

SL. NO.	USN	NAME	Guide	Topic
1	DIVYALAXMI	3LA22EC013	Dr.Sharnbasappa Shetkar	Online Election System using Python
	VINAYSHREE	3LA22EC045		
	ADARSH	3LA22EC002		
	AVINASH	3LA22EC010		
2	BIRADAR TRIVENI	3LA22EC012	Dr.Sharnbasappa Shetkar	College placement System using Python
	SANDEEP	3LA22EC027		
	KANAKSHI	3LA22EC400		
	MOHAMMAD SHAHBAAZ	3LA22EC017		
3	SHIVANI	3LA22EC033	Dr.Sagarkumar Buyya	Electronic fingerprint voting Machine
	SURYA PRAKASH	3LA22EC041		
	SHASHANK	3LA22EC031		
4	PALLAVI	3LA22EC023	Dr.Sagarkumar Buyya	Weather report Streaming with graphs using IOT
	SUMAN	3LA22EC040		
	PARAMESHWAR	3LA22EC024		
5	PRIYANKA	3LA22EC025	Mrs.Sadhana C	Plagiarism detection using Machine Learning
	BASAVASHREE	3LA22EC011		
	MD SAHEIL PASHA	3LA22EC016		
	NIKHIL	3LA22EC022		
6	RADHIKA	3LA22EC026	Mrs.Sadhana C	Vehicle Number Plate Detection system for Indian vehicles Using OCR
	SANDHYA	3LA22EC028		
	SHASHANK	3LA22EC032		
	MOHAMMED FAIZAN ALI	3LA22EC019		

7	SURYAWANSHI PRANAV	3LA22EC042	Dr.Basavalinga Swamy	Remote operated smart Electronic voice guider for Physical disabled/Bed ridden patients
	SANJANA BIRADAR	3LA22EC029		
	VEERESH	3LA22EC044		
	MOHD INZEMAM AHMED	3LA22EC020		
8	AKASH	3LA22EC004	Dr.Basavalinga Swamy	Smart Helmet using Arduino
	SUDAM	3LA22EC402		
	TEJASHWINI	3LA22EC043		
	ABHISHEK	3LA22EC001		
9	ANJLI	3LA22EC009	Mrs.Chaya B	AI Powered Resume Ranker system
	SHAKTIDEVI	3LA22EC030		
	AMRATA	3LA22EC007		
	AGRE SHRADHA BASWARAJ	3LA22EC003		
10	SOUMYA SHREE	3LA22EC038	Mrs.Chaya B	Flood Management System using Cloud Computing &IOT
	SHRUTI	3LA22EC036		
	VIVEK	3LA22EC046		
	SHRADHA	3LA22EC034		
11	SUCHITRA	3LA22EC039	Dr.Sharbasappa Shetkar	IOT based smart train with next station display
	AMULYA	3LA22EC008		
	AKSHATA	3LA22EC005		
	HARSHITA	3LA22EC014		

Few major projects are selected by the KSCST and financial aids are sanctioned for further development of the projects in consultation of the project guide

KSCST Sanctioned Projects:

The Karnataka State Council for Science and Technology (KSCST) Student Project Program (SPP) promotes research and innovation among students by providing support for projects that address societal, industrial, and technological challenges. It fosters creativity, skill development, and industry-academia collaboration, contributing to technological advancement in Karnataka. List of projects which are approved for sponsorship are shown in table 9.9.9.

Table: 9.9.9 Sample List of KSCST Sanctioned Projects

Sl. No.	Project No	Project Title	Name of the Guide	Name of the Students	Amount Sanctioned
AY 2025-2026					
	49S_BE_4330	WHETHER REPORTING AND STREAMING WITH GRAPHS USING IOT	Dr.Sagarkumar Buyya	Ms.Suman Ms.Pallavi Mr.Parameashwar	4000
AY 2024-2025					
1	48S_BE_0801	AUTOMATIC ACCIDENT DETECTION AND AMBULANCE RESCUE SYSTEM - SMART BIOS SERVICES USING ARDUINO	Dr.Sharanbasappa Shetkar	Ms.Priyanka Ms.Attoffa Jabeen Ms.Archana Mr. Pavan	4500
2	48S_BE_2309	DESIGN OF A CHARGE-PUMP BASED, PHASE LOCKED LOOP (PLL) FOR MEDICAL APPLICATIONS	Dr.Sagarkumar Buyya	Mr. Sai Prassan Mr.Vinayak Ghatge Ms. Divya SB Ms. Sandhyarani	4500
AY 2023-2024					
1	47S_BE_4704	DEEP LEARNING BASED MULTI RETINAL DISEASES CLASSIFICATION	Dr.Sharanbasappa Shetkar	Mr.Dayanand Mr.Shrishail	5000
AY 2022-2023					
1	46S_BE_4915	AI-BASED EMOTION RECOGNITION FROM SPEECH/AUDIO FILE	Dr.Sharanbasappa Shetkar	Mr.Abhishek Mr.Madhu	5000

The snapshot of KSCST Student Project programme is attached below:

**KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY**

Indian Institute of Science Campus, Bengaluru – 560 012

Website: www.kscst.org.in, <https://kscst.karnataka.gov.in> || Email: app@kscst.org.in || Tel: 080-2334 1652, 2334 8848/4940**48th series of Student Project Programme (SPP): 2024-25****List of Student Project Proposals Approved for Sponsorship****99. LINGARAJAPPA ENGINEERING COLLEGE, BIDAR**

Sl No.	PROPOSAL REFERENCE NO	PROJECT TITLE	COURSE	BRANCH	NAME OF THE GUIDE(S)	NAME OF THE STUDENT(S)	AMOUNT SANCTIONED (Rs.)
888.	48S_BE_0195	EXPERIMENTAL INVESTIGATION OF RECYCLE DEMOLISHED CONCRETE AS AGGREGATE M30 &M40	B.E.	CIVIL ENGINEERING	Prof. SHIVANAND JALADE Prof. KALYANRAO	Ms. AISHWARYA Mr. AMAR Mr. TAHA ALI KHAN Mr. MOHD TOUQEER AHMED	5,000.00
889.	48S_BE_0549	SMART LPG GAS LEAK DETECTION SYSTEM WITH IOT INTEGRATION	B.E.	COMPUTER SCIENCE AND ENGINEERING	Prof. ARUNA KAWDI Prof. VEERESH BIRADAR	Mr. SYED MOHAMMED HASAN Mr. TALIJ LIL IMAM Mr. SYED SHOEIB AKTHER	5,000.00
890.	48S_BE_0631	BLOOD BANK MANAGEMENT SYSTEM	B.E.	COMPUTER SCIENCE AND ENGINEERING	Prof. VEERESH BIRADAR Prof. GURURAJ NASE	Mr. VISHNUKANT Mr. SURAJ PATIL Mr. SUPREET PATIL	4,500.00
891.	48S_BE_1883	VILLAGE DEVELOPMENT APPLICATION	B.E.	COMPUTER SCIENCE AND ENGINEERING	Prof. P SRIPALREDDY Prof. VEERESH BIRADAR	Ms. SHWETHA Ms. BIRADAR PRANITA Ms. S ALKARANI	4,500.00
892.	48S_BE_2769	WASTE FOOD MANAGEMENT AND DONATION APP	B.E.	COMPUTER SCIENCE AND ENGINEERING	Prof. SHRUTI MODI Prof. NEELAMBIKA	Ms. AMBIKA Ms. AIMAN GOUS Ms. AKSHATHA PATIL	4,500.00

**KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY**

Indian Institute of Science Campus, Bengaluru – 560 012

Website: www.kscst.org.in, <https://kscst.karnataka.gov.in> || Email: app@kscst.org.in || Tel: 080-2334 1652, 2334 8848/4940**48th series of Student Project Programme (SPP): 2024-25****List of Student Project Proposals Approved for Sponsorship**

893.	48S_BE_3508	IOT BASED MILITARY ROBOT WITH VIDEO SURVEILLANCE OF HUMAN AND CONTROLLING FROM WEB	B.E.	COMPUTER SCIENCE AND ENGINEERING	Prof. NEELAMBIKA H Prof. SHRUTI MODI	Ms. AYESHA FATIMA Ms. MADIHA MAHVEEN	4,500.00
894.	48S_BE_0801	AUTOMATIC ACCIDENT DETECTION AND AMBULANCE RESCUE SYSTEM - SMART BIOS SERVICES USING ARDUINO	B.E.	ELECTRONICS AND COMMUNICATION ENGINEERING	Dr. SHARANBASAPPA SHETKAR	Ms. PRIYANKA Ms. ATTOFFA JABEEN Ms. ARCHANA Mr. PAVAN	4,500.00
895.	48S_BE_2309	DESIGN OF A CHARGE-PUMP BASED, PHASE LOCKED LOOP (PLL) FOR MEDICAL APPLICATIONS	B.E.	ELECTRONICS AND COMMUNICATION ENGINEERING	Dr. SAGARKUMAR BUYYA	Mr. SAI PRASSAN Mr. VINAYAK GHATGE Ms. DIVYA SB Ms. SANDHYARANI	4,500.00
896.	48S_BE_3767	LASER SECURITY SYSTEM FOR HOME AND MULTI PURPOSE	B.E.	MECHANICAL ENGINEERING	Prof. PREETI KHANDRE	Mr. TEJESH Mr. AKHILESH Mr. VINAYAK	5,000.00

9.10 E-Governance (5)

9.10 The institution uses e-governance in administration, academics, finance, examination, and student support to make work easy, transparent, and efficient.

Attendance, records, and administrative work are managed using ERP and digital systems. Communication is done through online platforms.

Financial activities like fee payment, scholarships, and staff salaries are handled through computerized systems, ensuring accuracy and transparency.

9.10.1 E-Governance Initiatives

The institution has adopted e-governance practices in the following areas:

A)Administration

- Digital attendance system for students and staff
- Digital record maintenance
- Timetable and academic schedule management

B)Finance and Accounts

- Online fee payment system
- Computerized accounting system
- Salary processing through banking systems

C)Examination

- Online internal marks entry
- Digital communication of academic records

D)Student Support

- Scholarship management
- Online communication and information dissemination

9.10.2 Outcomes of E-Governance

The implementation of e-governance has resulted in:

- Reduced paperwork
- Improved transparency
- Faster administrative processes
- Better academic monitoring
- Enhanced efficiency in institutional functioning

9.10.3 Academic and Learning Management Practices

The institution also uses digital platforms to support academic activities such as:

- Sharing of study materials
- Conduct of quizzes and assignments
- Online communication between faculty and students
- Access to e-learning resources and digital content

9.10.4 Campus-Wide Computing Resources Infrastructure

Table 9.10.1 List of computing resources

Sr No.	Resources	Number
1	Computer systems	340
2	Internet	AIRTEL-100MBPS AIRTEL-100MBPS AIRTEL-100MBPS BSNL-1GBPS JIO-4MBPS
3	Firewall	Built in firewalls by service providers ISP(Internet Service Provider)
4	CCTV cameras	ECE-19 CSE-10 EEE-11 CV-13 MECH-22 H&S-15 LIBRARY-10 COLLEGE EXTERIOR-16
5	Routers	10
6	Projectors	14
7	Microsoft OS License	WINDOWS10 & UPGRADED VERSION 11
8	Printers	17
9	UPS (10 KVA, 6 KVA, 2KVA)	MECH- 15KVA H &S- 10KVA LIB-10KVA CSE-15+10KVA(2 NOS) ECE-15KVA INTEL UNNATI-20KVA EEE-9KVA

9.10.5 ICT Support for Learning

Table 9.10.2 Internet Service Details

Sl. No.	Particulars	Remarks
1.	Name of the Internet Service provider	Airtel

2.	Available Bandwidth	100 Mbps High Availability Internet Leased Line
3.	Wi-Fi Availability	Yes, Available
4.	Internet Access in Labs, Classrooms, Library and Office of the all Departments	Yes, Available through Wi-Fi and LAN (shared)
5.	Security arrangement Firewall, Content Antivirus, Intrusion prevention	DDOS Protection and Sophos Firewall for Filtering & management.

9.10.6 Impact on Academic and Professional Development

The institution's digital infrastructure and e-governance practices contribute significantly to academic and professional development by:

- Enhancing digital literacy among students and faculty
- Supporting online learning and certification courses
- Improving teaching-learning effectiveness
- Encouraging research, innovation, and self-learning
- Enabling smooth academic and administrative processes
- Regularly technical activities such as seminars, workshop on trending technologies, FDP'S industrial visits are conducted under banner of professional bodies like IEEE, IETE, ISTE etc.

Few sample reports of seminars, workshops, industrial visits are attached below:

1) IETE (Institution of Electronics and Telecommunication Engineers) Activity

1. 2-day National Conference on Recent Trends in Engineering & Management Studies (RTEMS-2022) was organized on 12th–13th April 2022 at Lingaraj Appa Engineering College, Bidar.

Experts delivered sessions on emerging technologies such as nanotechnology, machine learning, electric vehicles, 5G, and Digital India. More than 200 participants attended, and research paper presentations were conducted.

Outcome:

The event enhanced technical knowledge, research exposure, and industry awareness among participants.



2. IETE Sponsored FDP on Arte-Classroom Teaching/Learning Practices and Soft Skills for Faculties in the Age of Machine Learning was conducted on 31/01/2026 at Lingraj Appa Engineering College, Bidar.

The FDP focused on ARTE model (Active, Reflective, Technology-enabled, Experiential learning) and the use of AI/ML tools in education. Faculty were trained in modern teaching methods, digital tools, and AI-based academic applications.

Outcome:

Faculty improved teaching effectiveness and gained skills in using innovative and AI-based tools for teaching, research, and content creation.



3. One-day seminar on Universal Human Values was conducted on 2nd December 2022 at Lingraj Appa Engineering College, Bidar.

The session was delivered by Dr. Abhirama Krishna. The seminar focused on the importance of human values in shaping personality, decision-making, and leading a meaningful life.

Outcome:

The seminar helped students understand the importance of values, ethics, and responsible behavior in personal and professional life.

PHOTOGRAPHS



4. A program on *Women Empowerment and Gender Equality* was conducted on 8th March 2023 at Lingaraj Appa Engineering College, Bidar, on the occasion of International Women's Day.

The session focused on the role of women in economic development, challenges faced in employment, wage inequality, and the importance of equal opportunities. It also highlighted how reducing the gender gap can contribute to national and global economic growth.

The program included awareness talks and participation from students and faculty, emphasizing the importance of respect, equality, and empowerment of women in society.

Outcome:

The program enhanced awareness about gender equality, women's rights, and encouraged equal participation in social and professional life.



5. One-day seminar on "*Sell Yourself for Better Price*" was conducted on 6th December 2022 at Lingaraj Appa Engineering College, Bidar.

The session was delivered by Dr. Yandamoori Veerendranath. The seminar focused on personality development, confidence building, communication skills, and self-presentation techniques.

Students were guided on being confident, persistent, positive, and improving non-verbal communication and problem-solving skills.

Outcome:
The seminar enhanced students' confidence, communication skills, and ability to present themselves effectively in professional environments.



6. One-day seminar on “Motivation to Raise Benchmark: How to Set Goals?” was conducted on 7th September 2023 at Lingaraj Appa Engineering College, Bidar.

The session was delivered by Mr. Nagaprasad. The seminar focused on goal setting, self-confidence, determination, and the importance of motivation in achieving success. Students were inspired through real-life examples and guided on improving willpower and achieving their goals.

Outcome:
The seminar enhanced students' motivation, confidence, and ability to set and achieve personal and professional goals.



7. One-day seminar on “Transformations in IT Industry” was conducted on 23rd July 2024 at Lingaraj Appa Engineering College, Bidar.

The session was delivered by Mr. Shivkumar Markale. The seminar covered key topics such as software development, ERP systems, RESTful/API services, microservices, and event-driven architecture.

Students gained insights into the evolution of IT systems and modern industry practices.

Outcome:
The seminar enhanced students' knowledge of current IT trends and industry-relevant technologies.



8. One-week FDP on “Artificial Intelligence & Machine Learning (AIML-2025)” was conducted from 26th to 30th December 2025 at Lingraj Appa Engineering College, Bidar.

The FDP was handled by Mr. Bhargav P Raj. The program covered Python programming, data science, machine learning, deep learning, and modern AI tools like LLMs and generative AI.

Participants gained hands-on experience in coding, data analysis, model building, and AI application development.

Outcome:

The FDP enhanced participants' technical skills in AI/ML, practical knowledge, and ability to apply modern technologies in real-world applications.

PHOTOGRAPHS

Centenary Celebrated Sharnbasveshwar Vidya Vardhak Sangha's, Kalaburagi



LINGARAJ APPA ENGINEERING COLLEGE, BIDAR

ONE WEEK OFFLINE FDP
On
**Artificial Intelligence and Machine Learning
(AIML - 2025)**

RESOURCE PERSON
MR. BHARGAV PRAJ
*AI Engineer, Cadmaxx Solutions Pvt. Ltd.,
Bengaluru*

Date: 26.12.2025 to 30.12.2025
Venue: Centre of Excellence Lab



9.11 Initiatives and Implementation of Sustainable Development Goals (SDGs) (10)

Our institute aligns its policies and practices with standard Sustainable Development Goals (SDGs) to promote sustainable, inclusive, and quality education.

- **SDG 1- No Poverty**

To end poverty in all its forms everywhere. Keeping this in mind our institute follows the principle of “Equal opportunity to the worthy and needy students” i.e., our college provides engineering seats to all deserving students from all community specially belonging to the e

- **SDG 2- Zero Hunger**

Our college is proud to introduce PRASADA NILAYA, a program aimed at providing nutritious meals to all students at minimal cost. Inspired by the noble principles of DASOHA MAHAMANE, Kalaburagis ANNA DASOHA sutra, this initiative embodies our commitment to t

ANNA DASOHA is more than just a meal program; it is a testament to our commitment to the welfare of our students and the values we hold here as an educational institution. Through DASOHA, we not only nourish bodies but also nurture communities, embodying the t

- **SDG 4 – Quality Education**

To “ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”. Our college provides best quality education to all the students admitted and has given access to all learning resources at no extra cost. Management seats are provid

Quality education focuses on holistic development—social, emotional, mental, physical, and cognitive—ensuring learners gain literacy, numeracy, and life skills in safe, supportive environments. It is defined by effective teaching, relevant curriculum. This is crucial for fost
Exhibition, Poster Presentation, Technical events are organized regularly in the institute.

A sample report of Project exhibition organised on the occasion of Engineers Day is attached below:

Project Exhibition on the occasion of Engineers Day

OBJECTIVES:

Major objective of organizing this exhibition was to provide the platform and unleash the potential of the students by showcasing their innovative projects developed in the 3rd semester, 5th semester and 7th semester either as industry defined problem or user defined pro

Photographs of the Session:

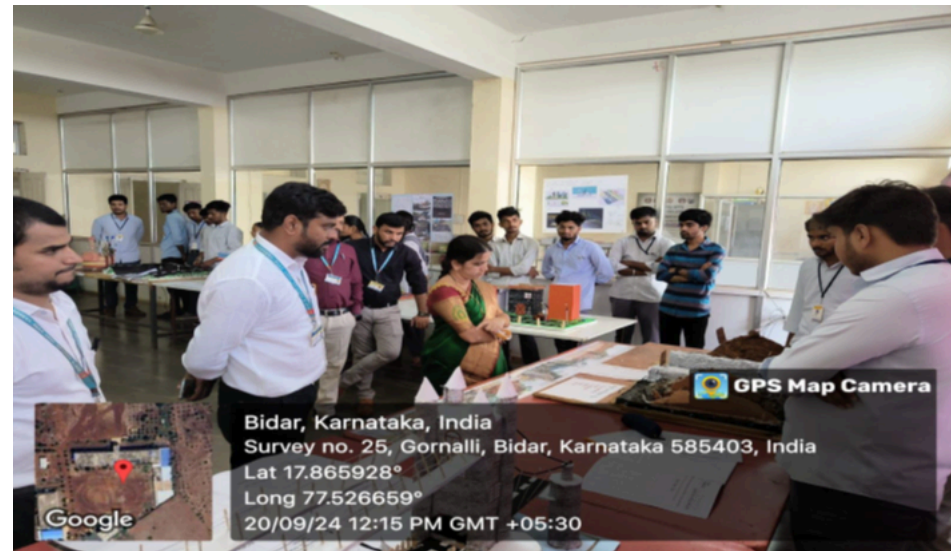


Figure 9.11.1: Students of Civil Engineer



Figure 9.11.2: Students of Civil Engineering

Key Components of Quality Education

- **Qualified Teachers:** Well-trained teachers are critical for delivering quality education and improving learning outcomes.
- **Effective Learning Tools:** Access to appropriate, engaging learning materials and technology is essential.
- **Safe Learning Environment:** Institute must be safe, inclusive, and well-equipped with infrastructure like electricity and sanitation.
- **Holistic Curriculum:** A focus on critical thinking, problem-solving, and life skills, rather than mere rote learning.

Use of NPTEL

NPTEL (National Programme on Technology Enhanced Learning) is a joint venture by IITs and IISc that uses online video lectures, assignments, and proctored certification exams to provide free, high-quality education in engineering, sciences, and humanities. It acts as a bridge between academia and industry.

Key Uses of NPTEL:

- **For Students:** Provides access to world-class academic content, allows for credit transfer to universities, enhances employability via certification, and offers specialized knowledge through domain certifications.
- **For Professionals:** Used for upskilling and reskilling to keep up with industry technologies, including specialized certifications.
- **For Faculty:** Offers Refresher courses and AICTE-recognized Faculty Development Programs (FDP).

Sample certificates of NPTEL courses done by faculties are attached below in figure 9.11.3:



Bidar, Karnataka, India
Survey No. 25, Gornalli, Bidar, Karnataka 585403, India
Lat 17.866286° Long 77.527076°
Tuesday, 30/12/2025 03:56 PM GMT +05:30

Figure 9.11.5: LAEC organized the FDP Program on Artificial Intelligence



Bidar, K
Survey No. 2
India
Lat 17.8663
Tuesday, 30

Figure 9.11.6: Faculties attend

In the academic year 2024-25, one week FDP on Microsoft Power BI Data analytics was

ONE WEEK FACULTY DEVELOPMENT PROGRAM (10th -14th June 2024)

About FDP: Power BI developed by Microsoft is a comprehensive business analytics tool designed to help organizations visualize their data and device actionable insights. It allows users to create interactive and visually appearing reports and dashboards, integrating d

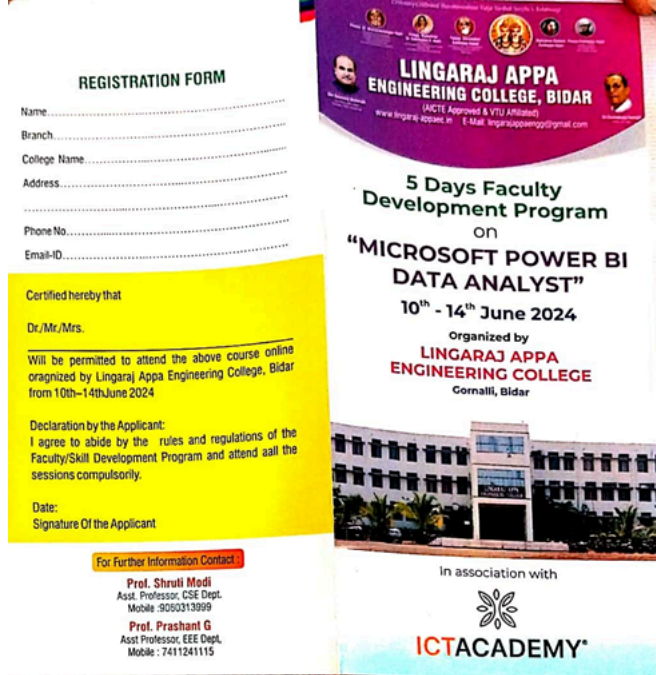


Figure 9.11.7: Faculties attending

◦ **SDG 5 – Gender Equality**

- To achieve gender equality and empower all women and girls, our institute has more than 40% of women working staff including all departments providing equal opportunity and women empowerment.
- To end all forms of discrimination, violence, and harmful practices against women and girls, while ensuring equal rights to economic resources, decision-making, and reproductive, our college has active Anti-Sexual Harassment cell, Women's Grievance Redressal cell.
- The society under which this institute runs had started its first school exclusively for girls only before independence in the year 1934 and currently the president of the society is a visionary woman Dr.Dakshayani S Appa, also principal of this institute is also a strong leader.

Woman's Empowerment

To implement Gender Equality International Woman's day is celebrated in our institute every year on 8th March. International Womens Day is celebrated commemorating womens fight for equality and liberation along with the womens rights movement. International Women's Day is a global celebration of the achievements of women and a call to action for gender equality.

Women empowerment is the process of enabling women to gain authority, self-reliance, and control over their lives by enhancing their ability to make strategic life choices. It involves achieving gender equality through education, economic opportunities, political participation, and leadership.

Table 9.11.1: Women's Empowerment

Sl.No	Name of the Staff
1	Dr. Vinita Patil
2	Mrs. Preeti K
3	Mrs. Sahana Patil
4	Mrs. Shruti Modi
5	Mrs. Shilpa Harnale
6	Dr. Umatai Deshmukh
7	Dr. Lakshmi Maka
8	Mrs. Jasmineet Kaur

9	Mrs. Manjula Mulge	Ext
10	Mrs. Sujata Mallapure	Ext

On the occasion of women's day every year we are recognizing eminent personalities in the society and awarding them with "AVVA STREE PRASHASTHI and KAYAKA RATNA PRASHASTHI ". Figure 9.11.8 below shows the celebration of International Women Day



Figure 9.11.8: Interna

In the academic year 2024-25 expert talk on " Career Opportunities in Defence Services " was organized on occasion of International Women's day . A report of same is attached below:

Objectives of the Program

- To create awareness about the importance of women's health and wellness.
- To educate participants on proper nutrition and healthy lifestyle practices.
- To promote awareness about menstrual hygiene and reproductive health.
- To encourage mental wellness and stress management techniques.
- To highlight the importance of regular health check-ups and preventive care.
- To empower women to take proactive steps toward their overall well-being.



Poojya Dr. Sharnbaswappa Appa
President, Sharnbasveshwar Vidya Vardhak Sangha, Kalaburagi



Poojya Matoshree Dr. Dakshayini S. Appa
Chairperson, Sharnbasveshwar Vidya Vardhak Sangha, Kalaburagi



Poojya Chiranjeevi Doddappa S. Appa
Trustee, Sharnbasveshwar Samsthan, Kalaburagi



Matahree Gobatali Doddappa Appa
Trustee, Sharnbasveshwar Samsthan, Kalaburagi



Poojya Doddappa Appa
Trustee, Sharnbasveshwar Samsthan, Kalaburagi



**Lingaraj Appa
Engineering College, Bidar**
INVITATION

You are cordially invited for



**International
Women's Day Celebration**

Expert talk on "Career Opportunities in Defence Services"

On Thursday, 29th February 2024 at 11:00 am

With the Benign Blessings of

Vidya Bhandari Poojya Dr. Sharnbaswappa Appa

8th Mahadasoha Peethadhipati, Sharnbasveshwar Samsthan, Kalaburagi
President, Sharnbasveshwar Vidya Vardhak Sangha, Kalaburagi

Hon'ble Chancellor, Sharnbasva University, Kalaburagi

Trustee Poojya Dr. Sharnbaswappa Appa Family Trust, Sharnbasveshwar Samsthan, Kalaburagi

Poojya Matoshree Dr. Dakshayini S. Appa

Chairperson, Sharnbasveshwar Vidya Vardhak Sangha Member,

Board of Governor, Sharnbasva University

Trustee Poojya Dr. Sharnbaswappa Appa Family Trust, Sharnbasveshwar Samsthan, Kalaburagi

Poojya Chiranjeevi Doddappa S. Appa

9th Mahadasoha Peethadhipati, Sharnbasveshwar Samsthan, Kalaburagi

Trustee Poojya Dr. Sharnbaswappa Appa Family Trust, Sharnbasveshwar Samsthan, Kalaburagi

— PATRONS —

Shri Basavaraj S. Deshmukh

Secretary, Lingaraj Appa Engineering College, Bidar
Secretary, Sharnbasveshwar Vidya Vardhak Sangha, Kalaburagi
Member, BOC, Sharnbasva University, Kalaburagi

Shri. Sharanbasappa Deshmukh

Director,
Lingaraj Appa Engg College,
Bidar

Dr. Umatai B. Deshmukh

HOD of OBG, BRIMS
Director, Lingaraj Appa Engg College, Bidar

Chief Guest

Sqn. Ldr. Akanksha Pandey

Station Adjutant
Indian Airforce, Bidar

All are Cordially Invited

Secretary, Director, HOD's, Principal, Staff & Students
Venue : Seminar Hall-1, LAEC, Bidar



Figure 9.11.9: Expert talk on “Career Opportunities in Defe

◦ **SDG 6: Clean Water & Sanitation**

- To ensure the availability and sustainable management of clean water and sanitation for all, our institute is equipped with a proper water filter unit at all the floors along with water cooler units.
- Provide access to sanitation and hygiene for all, ending open defecation, with special attention to women and girls like automatic sanitary napkin vending machine is available in girls common room.

◦ **SDG 7: Affordable & Clean Energy**

To ensure access to affordable, reliable, sustainable and modern energy for all, to contribute to this SDG our institute has installed energy efficient equipment's all locations, and to ensure zero wastage of energy continuous monitoring of all classrooms labs is done to tu streetlights with smart LED systems. These installations enhance safety, require less maintenance, and offer long-lasting, eco-friendly lighting solutions.

Key Benefits of LED Campus Lighting

- **Energy Savings:** LED lighting is 80–90% more efficient than traditional lighting, leading to massive energy and financial savings.
- **Enhanced Safety:** Brighter, whiter, and more even light distribution eliminates dark corners and increases security around campus pathways and dorms.
- **Reduced Maintenance:** With a lifespan of 50,000 to 100,000 hours, LED lights require less frequent maintenance and replacements.
- **Sustainability:** LEDs are free of toxic chemicals (like mercury found in fluorescent bulbs) and are recyclable, contributing to a "green" campus image.

Implementation Strategies for Campus LED Upgrades

- **Outdoor/Streetlight Upgrades:** Replacing old streetlights with warm LED lights provides better, more welcoming light for walkways.
- **Phased Upgrades:** Campuses can tackle upgrades in stages—starting with common areas, then moving to classrooms, labs, and finally outdoor lighting.



Fig. 9.11.10 L



Fig. 9.11.11: LED usage in our Institute

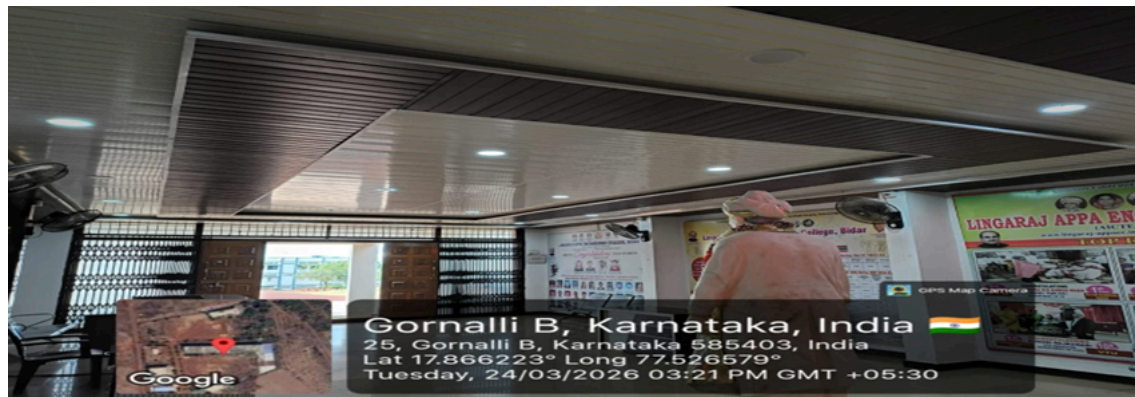


Fig. 9.11.12: LED usage in our Institute

- **SDG 8: Decent Work And Economic Growth**

To promote sustained, inclusive economic growth, full employment, and decent work for all, our institutes provides fulltime employment with proper scale as per industry standards, also timely increments in given to all the employees, protects labour rights and promote s

- **SDG 9: Industry, Innovation and Infrastructure**

Developing quality, reliable, and sustainable infrastructure to support economic development and human well-being, with a focus on affordable and equitable access. Significantly increasing access to information and communications technology, aiming for universal and

- **SDG 10: Reduced Inequalities**

To reduce income inequality and disparities based on age, sex, disability, race, or economic status within, Empower all, regardless of age, sex, disability, race, or economic status. At LAEC irrespective of sex, cast, race, disability or financial status jobs are provided to a

- **SDG 11: Sustainable cities and Communities**

To "make cities and human settlements inclusive, safe, resilient, and sustainable". To contribute to this SDG properly planned safe, clean, and affordable hostel facilities are provide to the students of other cities taking admission in our college. To reduce air pollution and

- **SDG 12: Responsible Consumption and Production**

To "ensure sustainable consumption and production patterns"

- **Core Objective:** Shift toward sustainable consumption and production patterns to minimize resource use, degradation, and pollution throughout the product life cycle.
- To achieve the core objective institute strives hard to reduce wastage of food, efficient use of natural resources like by using maximum number of windows for using natural cooling system helping to reduce usage of electrical energy, installation of **Rain Water Harvesting System**
- **Rainwater Harvesting System**

A rainwater harvesting system collects, filters, and stores rainwater—usually from rooftops—for later use, such as irrigation, toilet flushing, or cleaning. Key components include a catchment surface (roof), gutters for transportation, a first-flush diverter (to remove



Figure 9.11.13: Rainwater Harvesting System is located

- **SDG 15: Life on land**

To protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt biodiversity loss. To contribute to this SDG campus has more than 500 different trees planted in the campus

- **SDG 17: Partnerships for Goal**

Collaborative efforts among governments, private sector entities, civil society organizations, to work together in advancing sustainable development. To contribute to this SDG institute in collaboration with NSS unit, Blood Bank and other stake holders we try to impart ba

9.12 Innovative Educational Initiatives and Implementation (5)

Lingaraj Appa Engineering College, Bidar, is committed to fostering innovative, student-centric, and outcome-based education aligned with modern academic and industry requirements. The institution has undertaken several initiatives to enhance teaching-learning processes, digital transformation, and holistic development of students.

These initiatives focus on integrating Information and Communication Technology (ICT), promoting multidisciplinary learning, and ensuring value-based education for producing competent and responsible graduates.

The institution has implemented ICT-based teaching methodologies to improve the effectiveness of classroom delivery and student engagement.

1. Key ICT Initiatives

2. Holistic Development Initiatives

3. Industrial visits

4. Establishment of IPR cell

Key ICT Initiatives

- **Smart Classrooms:**
Classrooms are equipped with projectors, digital boards, and internet connectivity for interactive teaching.
- **E-Learning Platforms:**
Faculty use digital tools such as PPTs, video lectures, and online resources to supplement teaching.
- **Simulation Tools:**
Students are encouraged to use simulation software for practical understanding.

Holistic Development Initiatives

- The college strongly emphasizes **holistic development**, ensuring growth beyond academics—intellectual, emotional, ethical, and social.
- To imbibe a culture of respect, moral values towards parents, teachers and society a spiritual program is organized every year on occasion of Student Induction Programme for newly admitted students.

Attaching below sample of two programs organized for Holistic Development

1. Title: “Holistic Development and Educational Empowerment” was conducted on 21-09-2024 by Mr. Basavaraj Benni.

• **Key Highlights:**

- Importance of intellectual, emotional, and ethical development
- Concept of brain investment and mind management
- Role of education in socioeconomic upliftment
- Introduction to academic value chain system
- Need for critical thinking and creativity in education

• **Outcome:**

- Students developed awareness about self-growth and lifelong learning
- Encouraged critical thinking and disciplined learning habits

2. Title: Spirituality, Patriotism, Rules and Responsibility of Parents, General High Voltage Motivation by Mr. Satisha on 30-09-2024

• **Key Themes Discussed**

- **Learning Attitude:** Importance of curiosity, openness to feedback, and resilience.
- **Respect for Women:** Emphasis on mutual respect and recognizing contributions of women.
- **Emotional Bond:** Role of parent-child relationships in moral and emotional development.
- **Self-Respect vs Ego:** Maintaining balance for personal growth.
- **Belief in God:** Spirituality as a source of strength and moral guidance.
- **Energy in Belief:** Positive belief leads to achievement and fulfillment.
- **Ethics and Moral Education:** Importance of honesty, integrity, and respect.



Figure 9.12.1: Spirituality,

Patriotism, Rules and Responsibility of Parents, General High Voltage Motivation by Mr. Satisha on 30-09-2024

Lingaraj Appa Engineering College, Bidar, continues to implement **innovative educational practices** by integrating ICT tools and promoting holistic development. The institution ensures that students are not only academically proficient but also **emotionally balanced, ethically grounded, and socially responsible individuals**.

Industrial visits

Industrial Visit to NRSC Hyderabad, ISRO and Dairy farm

AIM OF THE INDUSTRIAL VISIT:

1. To expose students to the functioning of NRSC as a key ISRO Centre for satellite remote Sensing and geospatial services.
2. To understand the complete workflow of Earth observation data from satellite acquisition to processing, analysis and dissemination to user agencies.

As a part of industrial visit, our students of ECE department visited National Remote Sensing Centre (NRSC) Hyderabad on 27-11-2025. Students of ECE, EEE, CSE department visited ISRO and DRDO Bengaluru on 30-09-2024, 01-10-2024.

NRSC is one of the lead centres of the Indian Space Research Organisation responsible for acquisition, processing, archiving and dissemination of remote sensing satellite data from Indian and foreign Earth observation missions.

The centre also develops remote sensing applications in areas such as agriculture, water resources, forestry, urban planning, geosciences, environmental studies and disaster management support for various national and state level agencies.

NRSC's main campus is located at Shadnagar, Hyderabad, and it operates multiple ground stations and regional centres across India for satellite data reception and outreach activities.

It manages satellite data acquisition, product generation, geospatial services and value-added

Information through divisions like Satellite Data Acquisition, Data Processing & Dissemination, Applications, Aerial Services & Digital Mapping, and Disaster Management Support.

INTRODUCTORY SESSION AT NRSC:

In the first session, an overview presentation on ISRO and NRSC was delivered by a senior official, covering the history of Indian space programme, major satellite missions and organisational structure.

The speaker explained the role of NRSC in acquiring and processing data from Indian missions like Resource sat, Cart sat, RISAT and Ocean sat, as well as data from selected foreign satellites.

The students were introduced to the basic concepts of remote sensing, electromagnetic spectrum, sensors, spatial and spectral resolution, and different types of satellite imagery used for Earth observation.

The importance of geospatial technology and integration of remote sensing data with Geographic Information Systems (GIS) for decision-making in government and industry was highlighted.



Fig. 9.12.4 Introductory Session NRSC at Auditorium







Fig. 9.12.5 Industry visit to ISRO (U R Rao Satellite Centre), Bangalore and Dairy farm

Establishment of IPR cell

Session 1: Patentable Subject Matter

Speaker: Dr. Sarasija Padmanabhan

Designation: Patent Agent, WIPO Tutor, and Consultant to KSCST

Key Highlights:

- The session introduced the concept of patents and their role in protecting inventions.
- The speaker explained what qualifies as patentable subject matter, emphasizing:
 - Novelty (newness)
 - Inventive step (non-obviousness)
 - Industrial applicability
- Examples were provided to distinguish between patentable and non-patentable inventions.
- Special focus was given to exclusions under patent law, such as:
 - Abstract ideas
 - Scientific theories
 - Methods of agriculture or medical treatment
- The importance of conducting a prior art search before filing a patent was discussed.
- The session also covered the patent filing process and the role of organizations like WIPO.

Outcome:

Participants gained a clear understanding of how to identify whether an idea can be patented and the steps involved in securing patent protection.

Session 2: Importance of Design Registration

Speaker: Mr. Vineeth Kumar S R

Designation: Project Engineer, KSCST

Key Highlights:

- The session focused on design registration and its significance in protecting the visual appearance of products.
- The speaker explained that design registration covers:
 - Shape
 - Configuration
 - Pattern
- Emphasis was placed on how design rights differ from patents:
 - Patents protect functionality
 - Design registration protects aesthetics
- Real-world examples were shared to demonstrate how companies benefit from protecting their designs.

- The process of registering a design and its legal advantages were discussed.
- The session highlighted the role of design in enhancing market value and brand identity.

Outcome:

Participants understood the importance of safeguarding product designs and how design registration contributes to competitive advantage in the marketplace.



Faculty performance appraisal is a systematic, annual process assessing faculty contributions in teaching, research, and service to drive institutional quality. It typically combines self-appraisal, student feedback, and peer/administrative review to determine promotions, salary increments, and professional development needs. Effective systems are objective, transparent, and aligned with accreditation standards.

LINGARAJ APPA ENGINEERING COLLEGE, BIDAR

ANNUAL PERFORMANCE APPRAISAL PROFORMA 2024-2025

Faculty Details

Name of the Faculty: Dr. Sharanabasappa Shetkar

Designation: Professor

Department: E&CE

Faculty: Engineering & Technology

Date of Joining: 01-08-2012

Date of Birth & Age: 11-12-1986

Guidelines

1. The filled-informs are to be submitted through the HODs
2. The particulars given by the faculties are to be verified with records, originals, or copies of certificates by the HOD duly counter-verified by the Principal.
3. Instructions given under each column may carefully be read before filling out the form.

1. Educational Qualification:

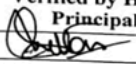
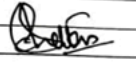
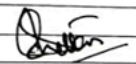
a)

Year	Qualification	University / Institute	Department/Subject/field	Status (Completed/ Pursuing)
2022-23	Ph.D.	VTU Belagavi	Electrical & Electronics Eng. Sciences	Completed
2012	M.tech	MSRIT, Bengaluru	Digital Electronics & Communication	Completed
2009	B.E	REC Bhalki	Electronics & Communication Eng.	Completed

b) Additional Qualification

(Copies of certificates to be attached)

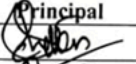


2. Total Experience:

Nature of Service	Experience		Verified by HOD/ Principal
	Years	Months-	
College Teaching.	14		
Polytechnic/School Teaching			
Research	03		
Industry			
Others			
Total	17		

LINGARAJ APPA ENGINEERING COLLEGE, BIDAR

3. Experience at our institutions:

5 Marks

Name of the Institution	Designation	Period		Verified by HOD/ Principal
		From	To	
LAEC, Bidar	Professor	01-10-2025	Till date	
LAEC, Bidar	Associate. Professor	01-10-2022	30-09- 2025	
LAEC, Bidar	Assistant Professor	01-08-2012	30-09- 2022	

Note: Each year carries 1 mark subject to a maximum of 5 marks

LINGARAJ APPA ENGINEERING COLLEGE, BIDAR

CATEGORY I: ACADEMIC PERFORMANCE INDICATORS (APIs)

4. Teaching Workload:

10 Marks

a) Total Teaching Hours Per week

Academic Year	Semester	Subject	Hours allotted per Week	Verified by HOD/Principal
2024-25	8	21INT822	03	
2024-25	4	BEC401	04	
2024-25	2	BESCK204C	04	
2024-25	5	BEC501	04	
2024-25	5	BEC586	03	
2024-25	7	21EC76	03	
Total Weeks				

b) Additional Teaching Hours Per week

3 marks

Category (AP/Assoc. Prof./Prof.)	Hours of Teaching Allotted per week	Hours of Teaching Prescribed per week performs	Extra Hours of Teaching per week	Verified by HOD/Principal

Note: Extra hours allotted per week than the prescribed hours as per norms

One hour / week: 1 mark; Two hours / week: 2 marks; Three Hours & above / week: 3 marks

5. Course Planning & Execution: 15marks

(Note: Marks allotted to be given only on satisfactory execution of the following. if not satisfactorily executed, no mark to be given. In case, if execution in one semester is satisfactory and in another semester unsatisfactory half the allotted marks to be given)

Sl. No.	Content	Remarks	Marks	Total Marks
a.	Syllabus (completion of all 5 units)	Yes	2	2
b.	Regular it in attending the classes	Yes	2	2
c.	Maintenance of question bank	Yes	2	2
d.	Use of Teaching Aids & Advanced Methodology (PowerPoint, You Tube, Chart, Smart classroom, Models, Google Class& E-Content)	Yes	2	2
e.	Usage of Library(visits & Book borrowing	Yes	1	1

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f.	Lesson plan well prepared	Yes	1	1
g.	Notes of lesson-Updated fully & confined to syllabus	Yes	2	2
h.	Course file well maintained	Yes	1	1
i.	Conduct of internal tests & Assignment –sincere evaluation	Yes	1	1
j.	Special extra efforts (Special classes, revision, focus on tough portions arrear coaching)	Yes	1	1

6. Academic Results:

10Marks

Semester	Year	Subjects with Code	(Theory/Practical)	Pass Percent	Marks	Verified by HOD/Principle
2	2024-25	BESCK204C	Theory	89.28%	8	
4	2024-25	BEC401	Theory	84.00%	8	
5	2024-25	BEC501	Theory	100%	10	
5	2024-25	BEC586	Mini - project	100%	10	
7	2024-25	21EC76	Project work	100%	10	
8	2024-25	21INT822	Internship	100%	10	
Total				93.33%	56/60	

Note: Marks are to be awarded for each subject as per the following table given for Theory & Practical Subjects and the total of marks obtained is to be divided by the number of subjects to arrive at the final mark.

Table: Pass percent and marks to be given for Theory& Practical Subjects

Theory& practical subjects
91-100%-10 marks
81-90% -8 marks
71-80% -6 marks
61-70% -4 marks
<60% -NIL

7. Guide ship approval:

1 marks

Name of the University	Approval & Reference Number (if Available)
VTU, Belgaum	VTU/ VGM/Aca/Ph.D./2023-2024/300



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8. Students Guide ship (Year Wise):

1 marks

No. of UG projects Guided	No. of PG /Ph. D Projects Guided	No. of Innovative Projects Selected at National / International Level Hackathons/ Competitions	No. of Ph. D. Scholars Guided	
			Pursuing	Completed
2	00	01-KSCST	00	00

Note: 1 mark each for UG, 2 marks each for P.G. / Ph. D, 2 marks each for Innovative Projects at National & International levels, 3 marks each for pursuing Ph.D. & 5 marks each for Ph.D. Completion. Subject to a maximum of 5 marks

9. Dedication to service:

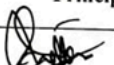




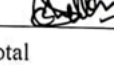

5 Marks

Duty days	:91-100%	-	5 marks
	:81-90%	-	3 marks
	: <80%	-	NIL

Note: The percent of duty days to have arrived is based on the no. of days the faculty has actually attended duty over the total no of actual working days.

10. Student's feedback

5 Marks

Semester	Year	Subject with code	Feedback-Excellent/Good/Average/Poor	Marks based on grade	Verified by HOD/Principal
8	2024-25	21INT822	Good	4	
4	2024-25	BEC401	Good	4	
2	2024-25	BESCK204C	Good	4	
5	2024-25	BEC501	Excellent	5	
5	2024-25	BEC586	Excellent	5	
7	2024-25	21EC76	Excellent	5	
Total				27	

Note : Marks are to be given for each subject as shown below based on grade and total marks to be divided by the number of subjects.

Grade	Marks
Excellent:	5 marks
Good:	4 marks
Average:	2 marks
Poor:	NIL

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11. E-Learning Material Development:

3 marks

Name of the Subject	Authors	Copyright Details	Verified by HOD/ Principal

Note: One subject-2 marks each per subject to a maximum of 3marks

12. Value Added Courses/Non-formal Courses: 0 marks

Name of the Course	Date(s)	Course& Year	Verified by HOD/ Principal

Note: One mark each per course subject to a maximum of 2 marks


CATEGORYII: RESEARCH AND DEVELOPMENT CONTRIBUTION

13. Publication:1 Marks

I. Articles

3 Marks

a.1. Articles published during the year 2024-25

Title	Journal, Volume, issue& Pages	Cited in			UGCC ARE	Verified by HOD/ Principal
		SCI	Scopus	Others		
Automatic accident detection & ambulance rescue system using smart bios services Arduino	JSRT, Volume -2, Issue-12 Pages 69 - 72			Yes		

Note:

- Articles Published : SCI – 3 marks each.
Scopus – 2 marks each.
UGC Approved– 1 mark each.
Others –1 mark
- Articles accepted for publication : SCI–2 marks each.
Scopus – 1 mark each.
UGC Approved – 1 mark each.
Others – Nil
Subject to a max of 3marks



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14. Grants Fetched marks

a. i. Research Project Grants during the year 2024-25

Date	Title of the Project	Name of the Funding Agency	Grants Approved	Verified by HOD/ Principal

Note:

For Minor Research Grants : 1 Lakh to 10 Lakhs : 2 Marks
 For Moderate Research Grants: 10 Lakhs to 50 Lakhs : 5 Marks
 For Major Research Grants : Above 50 Lakhs : 10 Marks

a. ii. Total number of funded projects obtained so far with cost during the entire period of service:

b. Seminar/Workshop/Conference/FDP/EDP/Training Grants

Date of Program	Title of the Program	Name of the funding Agency	Grant Approved	Verified by HOD/ Principal

Note: Seminar grant-2markseach

15. Patents:

5 marks

a. Patents obtained during the year 2024-25

Year	Description of patent	Status & Funds Received	Verified by HOD/ Principal

Note:

Patents approved: 2½ marks each for National & 5 marks for the overseas subtotal max.of 5marks.

b. No. of patents obtained so far with cost during the entire period of service: _____

16. Consultancy Services:

2 marks

a. Consultancy services rendered during 2024-25

Nature of consultancy service	Beneficiary	Funds received	Verified by HOD/ Principal

Note: 2 marks each subject to a maximum of 2 marks


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a.2. Articles published so far during the entire period of service:

SCI: Scopus: UGC Approved: Others:

b.1. Articles presented in Conferences for the year 2024-25

3 Marks

Title	Title, Date(s) and Organizer of the Conference	National/International	Proceedings Indexed	Verified by HOD/Principal
Impact of crypto currency on global financial stability: analyze regularity responses and their effectiveness in managing risk associated with crypto currencies.	07-02-2025 IPS academy institute of Engineering and science(IES) MP , India	International	IEEE	

Note:

International Conference–2 marks each; National Conference– 1 mark each;
If proceeding is indexed in Scopus etc., –3 marks each subject to max .of 3 marks

No. of articles presented so far during the entire period of

service:

International:

National:

II. Books

2 marks

a. Books published during the year 2024-25

Title with ISBN	Authors	Publisher	National/International/Local	Verified by HOD/Principal

Note:

International – 2 marks each; National – 1 mark each;

\

Local – 1 mark each

Subject to a maximum of 2marks

b. No. of books published so far during the entire period of service

International:

National:

Local:



LINGARAJ APPA ENGINEERING COLLEGE, BIDAR

CATEGORY III: OTHER CONTRIBUTIONS

17. Workshops/FDPs/EDPs/ Seminars/Symposia /Conferences/ Webinars/Faculty Exchange Programmer: 3 Marks

Name of the event	Period	Place	Organizer /Sponsor	Nature of Contribution Organizer, resource person or participant	Verified by HOD/ Principal

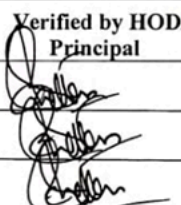
Note: Marks to be awarded : Organizer-3 marks each; Resource Person-2 marks each; Guest Lecture- 2marks each;

Editorial Board Member-1mark

: Reviewer – 1 mark each;
:Participant - 1 mark each

(Subject to a maximum of 3 marks)

18. Membership in Professional Bodies (2marks)

Name of the Professional Bodies	Verified by HOD/ Principal
IEEE-Senior member-97705216	
IETE-M502187	
ISTE-LM 130727	

Note: Marks to be allotted 1 mark each/ Body subject to a maximum of 2 marks

19. Academic Administration Responsibility: 10 Marks

Sl.no	Name of the Task	Chairperson/Chairman	Marks
1.	Exam controller		
2.	SPP Coordinator		
3.	EMS Coordinator for ECE		
4	AICTE Dept. coordinator		
5.	VTU Affiliation Dept. coordinator		



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Note: 2 marks for each responsibility

21. Interaction with outside world: (2 marks)

Sl. No.	Details of the Activity	Marks
1.	External Examiner	02
2.	National/International Conferences attended	01

Note: 01 Mark for each outside-world interaction.

22. Additional Responsibilities:

4 marks

- ✓ NBA/ NAAC/ NIRF/ ATAL/SWACHTA
- Placement Support
- Branding the Institute
- Summer Projects ✓
- Industrial relations
- Industrial Visits ✓
- Students Internship ✓
- On the Job Training
- Students Counseling ✓
- NCC/NSS/YRC / Sports etc.

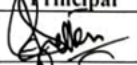


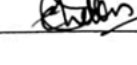
Responsibilities	Verified by HOD/Principal in consultation with the concerned staff In charge
------------------	--

Students Counselling	
Students Internship	
NAAC/NBA	

Note: 1 mark for each subject to a maximum of 5 marks

23. Contributions in Admissions

(Bonus 10 marks)

Name of the Student	Department	College	Verified by HOD/ Principal
Amith	CSE	LAEC	
Mohammad Sharif	ECE	LAEC	
Basavajyothi	ECE	LAEC	
Manoj	ECE	LAEC	



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Deepika	ECE	LAEC	
Prajwal	ECE	LAEC	
Kailash	EEE	LAEC	
Sandeep	EEE	LAEC	

Note: 1 mark per admission subject to a maximum of 10 marks

Date: 09-06-2025



Signature of Faculty:




LINGARAJ APPA ENGINEERING COLLEGE, BIDAR

SELFEVALUATION

API	Max. Marks	Self-Evaluation
CATEGORYI:(Academic Performance)	60	50
CATEGORYII:(R&D Contribution)	25	20
CATEGORYIII:(Other Contribution)	20	15
Bonus Marks	10	10
Total	115	95

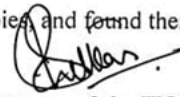
ASSESSMENT BY HOD

5 marks

Overall Feedback	Mark	Remarks If any
<input checked="" type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Average <input type="checkbox"/> Poor(Tick whichever is applicable)		

Note: Excellent-5marks /Good-3marks/Average-2marks /Poor-Nil

Certified that I have verified all the proof of evidence, original or true copies and found them correct


 Signature of the HOD
 With Name & Date

OVERALL EVALUATION

Dr. Sharanbalappa Shetty

API	Max. Marks	Marks as Verified by Principal
CATEGORYI:(Academic Performance)	60	50
CATEGORYII:(R&D Contribution)	25	15
CATEGORYIII:(Other Contribution)	20	18
CATEGORY IV:(HOD &Principal)	10	07
Bonus Marks	10	09
Total	125	98


 Signature of the Principal

With Name & Date
PRINCIPAL

9.14 Outreach Activities (5)

The **Lingaraj Appa Engineering College** conducted the Outreach activities for community benefit.

- Awareness campaigns (health, environment, literacy)
- Social service (cleanliness drives, tree plantation)
- Collaboration with local communities

Goal: Connect students with society and contribute to sustainable development.

Highlights of Major Activities:

- Conducted awareness programs on health, environment, and social issues.
- Promoted initiatives like cleanliness drives, tree plantation, and no-plastic campaigns.
- Supported national and international observances, such as International Yoga Day, Independence Day, and Traffic Awareness.

Outreach Activities organized:

Sl. No	Event organized	Date of Event
1	Blood Donation Camp	10-11-2023
2	NSS Activity Camp	02-02-2024
3	International Day of Democracy	15-11-2023
4	Traffic Awareness Camp	17-11-2023
5	Massive Plantation Drive	05-06-2024
6	International Yoga Day	21-06-2024
7	World Environmental Day	05-06-2024
8	SCR & AICTE Activity	31-07-2024

Outreach Activities organized in academic year 2025-26

Sl. No	Event organized	Date of Event
1	Yoga Day Celebration	21-06-2025
2	The celebration of Engineers Day and Teachers Day	15-09-2025
3	150 th birth anniversary of Sardar Vallabhbhai Patel	31-10-2025
4	Women's day	03-03-2026
5	Awareness program on Rabies Disease	25-02-2026

Sample photos of event organized by Lingaraj Appa Engineering College Bidar

1. Blood Donation Camp

A blood donation camp is organized in our institute every year in month of November on the occasion of birth anniversary of our former president lingaykya Dr. Sharanabasappa Appa ji; the event aim is collecting voluntary blood donations for medical emergencies, surgery, chronic illnesses. These camps involve medical professionals testing donors for health and blood pressure before a safe, quick, 10-minute donation process.



Figure. 9.14.1 Blood Donation Camp Organized by LAEC

2. NSS Activity

The National Service Scheme (NSS) has been introduced at LAEC as an integral part of its academic programs. Since its inception, NSS has been a consistent feature in the university's activities. Students are encouraged to participate in NSS programs as part of their course requirements. The NSS unit comprises dedicated volunteers led by a designated NSS Programme Officer.

Each year, NSS camps are organized, enabling the college to serve numerous villages and contribute to community development. In addition to these camps, the NSS conducts regular activities throughout the year, focusing on social awareness and welfare.

Key details about the International Day of Democracy:

- **Date:** September 15th, annually.
- **Origin:** Established in 2007 by a UN General Assembly resolution, following the 1997 Universal Declaration on Democracy by the Inter-Parliamentary Union.
- **Goal:** To strengthen democratic institutions, promote human rights, and uphold the rule of law globally.
- **2025 Theme:** "Achieving Gender Equality, Action by Action," focusing on empowering youth to promote inclusion and equal opportunities in democratic processes.
- **2024 Theme:** "Peace and democracy: Can ballots replace bullets?"
- **Significance:** It highlights that democracy is both a process and a goal, requiring active participation from governments, civil society, and individuals to protect the right to vote and voice dissent.
- **Activities:** Parliaments, educational institutions, and UN bodies conduct workshops, debates, and public campaigns to educate and encourage political participation

**LINGARAJ APPA ENGINEERING COLLEGE
BIDAR**

International Day of Democracy 2023

“Empowering the next generation”

ಅಂತರರಾಷ್ಟ್ರೀಯ ಪ್ರಜಾಪ್ರಭುತ್ವ ದಿನ 2023

ಜೀವಿ, ನಿ ಪೀಪಲ್ ಆಫ್ ಇಂಡಿಯಾ

"ಮುಂದಿನ ಪೀಳಿಗೆಯ ಸಬಲೀಕರಣ"

ಭಾರತದ ಜನಗಳಾದ ನಾವು

15ನೇ ಸೆಪ್ಟೆಂಬರ್ 2023, ಬೆಳಿಗ್ಗೆ 10.00 ಗಂಟೆಗೆ

ಹಮ್ಮಯಿಂದ ಸಂವಿಧಾನ ಪೀಠಿಕೆ ಓದೋಣ ಬನ್ನಿ-

Organized by NSS Unit
Venue: Seminar Hall, LAEC ,Bidar



Figure 9.14.3: International Democracy Day

4. Traffic Awareness Camp

Our institute Organized the Traffic Awareness Camps for educational initiatives designed to promote road safety, teach traffic rules, and reduce accidents through community engagement. These camps often feature interactive sessions, helmet awareness drives, and demonstrations for college students, motorists, and the general public, organized by local traffic police and our institute.

Key components and topics commonly covered in these initiatives include:

- **Targeted Education:** Training sessions for students on basic road signals, safe crossing, and bicycle safety.

- **Road Safety Rules:** Educating motorists on the importance of wearing helmets, seat belts, and avoiding dangerous behaviours like using mobile phones while driving.
- **Driver Training:** Workshops for young drivers on defensive riding, traffic laws, and legal awareness.
- **Campaigns:** Specific initiatives like "Arrive Alive," "Learn with Fun," and safety checks at temple or community center's.

Key Takeaways for Attendees

- **Active Participation:** Participants often take pledges to follow traffic rules and engage in interactive discussions.
- **Practical Knowledge:** Practical demonstrations of traffic symbols and safe road behaviour are key.
- **Partnerships:** Organized by Lingaraj Appa Engineering College and local police Bidar, together to foster a culture of safety.



5. SCR and AICTE Activity

SCR Activity" (Social Connect and Responsibility) is a mandatory, activity-based subject, typically undertaken by engineering students (such as at VTU) in their third semester. It is designed to expose students to real-time societal and environmental challenges, requiring participate in community-focused projects, collect data, and submit a detailed report.

Common SCR Activity Modules

1. **Plantation and Adoption of Trees:** Planting trees, often in rural or urban areas, and taking responsibility for their care.
2. **Water Conservation:** Investigating water usage, preventing water waste, and exploring rainwater harvesting.
3. **Organic Farming and Waste Management:** Learning about sustainable farming practices, composting, and proper waste disposal.
4. **Heritage Walk/Crafts:** Visiting historical sites to understand cultural heritage and practicing traditional crafts.
5. **Food Walk/Exploration:** Documenting traditional food practices, food safety, and local culinary culture

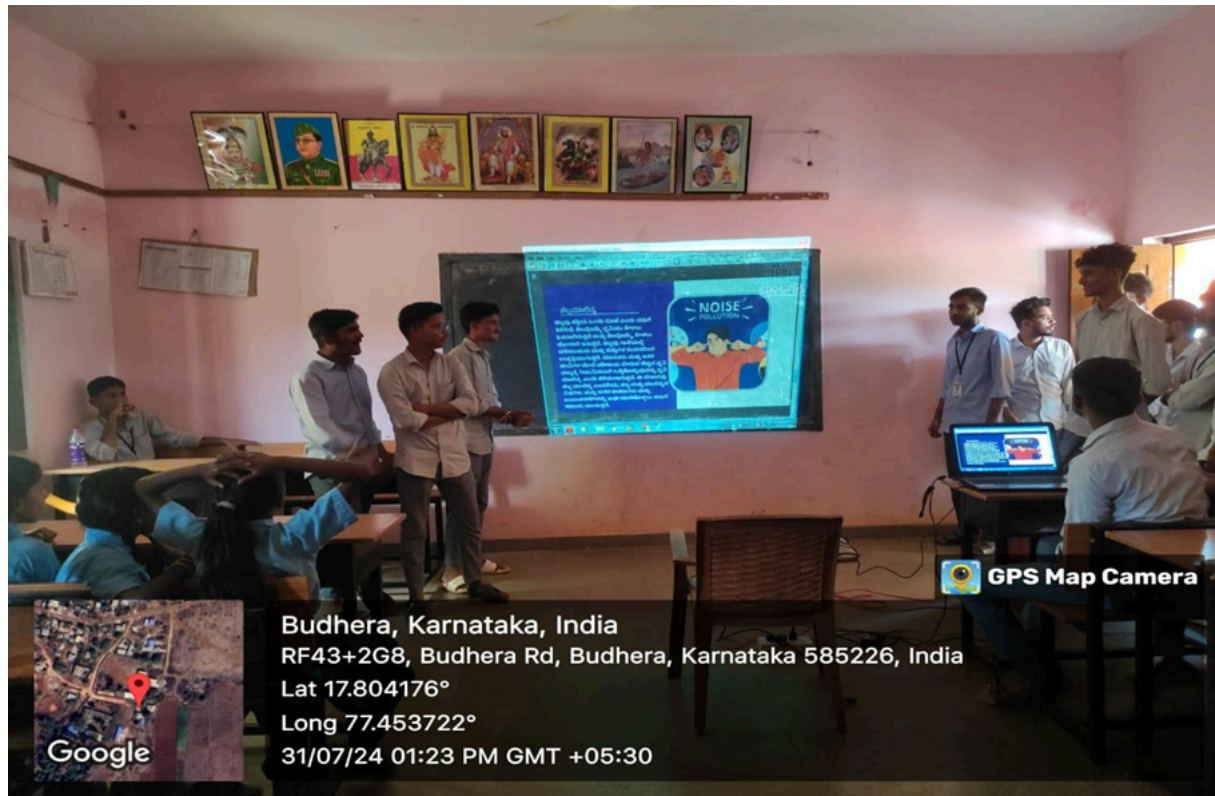




Fig. 9.14.5 LAEC organized the SCR Activity under AICTE Activity Point

6. International Yoga Day Celebration

On 21st June 2025, our institute celebrated International Yoga Day with great enthusiasm and active participation from students and teachers. The event was organized to promote the importance of yoga in maintaining a healthy lifestyle and to spread awareness about mental, and spiritual benefits.





Fig. 9.14.6 Students and Faculties performing YOGA

Seminars Organized under Society Connect activities

1. One Day Seminar on Technology Advancement in Cancer Diagnosis and its Awareness

OBJECTIVES:

To highlight the significant technological advancements contributing to the early diagnosis of cervical cancer and the enhancement of awareness initiatives, ultimately leading to improved outcomes and reduced mortality rates.

1. Promote Early Detection: Utilize innovative diagnostic technologies to detect precancerous lesions and cervical cancer at early stages, thereby enabling timely intervention and treatment.
2. Enhance Accuracy and Efficiency: Implement advanced screening methods such as HPV testing and liquid-based cytology to improve the accuracy and efficiency of cervical cancer detection, reducing false negatives and unnecessary follow-ups.
3. Facilitate Access to Screening: Leverage telemedicine and point-of-care testing to expand access to cervical cancer screening, particularly in underserved or remote areas where traditional healthcare infrastructure may be lacking.
4. Integrate AI in Diagnosis: Incorporate artificial intelligence algorithms into screening processes to assist healthcare professionals in interpreting results, optimizing resource allocation, and reducing diagnostic errors.
5. Empower Patient Education: Develop digital health tools and online platforms to provide comprehensive information about cervical cancer, its risk factors, and the importance of regular screening, empowering individuals to make informed decisions about their health.
6. Strengthen Community Outreach: Leverage technology, including social media and mobile apps, to implement targeted awareness campaigns and community outreach programs aimed at increasing cervical cancer awareness and encouraging screening participation.

PHOTOGRAPHS OF THE SESSION:



Figure 9.14.7: The program was inaugurated by chief guest and Resource Person Dr.Arati Raghu Kirani, Gynaecologist, our beloved principal Dr Vinita Patil, Mr Sandeep.M IIC president



Fig. 9.14.8 Faculty Attending the Cancer Awareness program organized by LAEC

2.One day Talk On “Lifestyle Modification Does it plays a role in PCOD ” and “physical and Mental Wellbeing “on the Eve of Women’s day 2026

Resource person: Dr Shilpa Bulla, Dr Hemlata Patil

Date: 03/03/2026

The One Day talks on Lifestyle Modification for PCOD and Physical and Mental Wellbeing is designed to educate and empower women about maintaining their physical, mental, and emotional well-being. The program focuses on important aspects such as nutrition, mental health, mental wellness, personal hygiene, lifestyle management, and preventive healthcare. Through expert talks, interactive sessions, and wellness activities, participants will gain valuable knowledge and practical tips to lead a healthier and balanced life.

Objectives of the Program

- To create awareness about the importance of women's health and wellness.
- To educate participants on proper nutrition and healthy lifestyle practices.
- To promote awareness about menstrual hygiene and reproductive health.
- To encourage mental wellness and stress management techniques.
- To highlight the importance of regular health check-ups and preventive care.
- To empower women to take proactive steps toward their overall well-being.

Target Participants

- Female students
- Faculty members
- Women staff

Key Topics Covered

- Balanced diet and nutrition for women
- Menstrual hygiene management
- Reproductive health awareness



Fig. 9.14.9 Lifestyle Modification Does it plays a role in PCOD” and “physical and Mental Wellbeing Awareness program

3.Awareness program on Rabies Disease

॥Shri Sharnbasaveshwar Prasanna॥



LINGARAJ APPA ENGINEERING COLLEGE, BIDAR

GORNALLI, BIDAR - 585 403
(AICTE Approved &VTU Affiliated)

INVITATION

You are cordially invited to

AWARENESS PROGRAMME ON RABIES DISEASE

On

25th Feb 2026 at 11.00 am at Seminar Hall-1

With the benign blessings of

Vidya Bhandari Lingaikya Poojya Dr. Sharnbaswappa Appa

8th Mahadasoha Peethadhipatti, Sharnbasaveshwar Samsthan, Kalaburgi
Former President, Sharnbasaveshwar Vidya Vardhak Sangha, Kalaburgi, Founder Chancellor, Sharnbasva
University Kalaburgi

Poojya Matoshree Dr. Dakshayini S Appa

President, Sharnbasaveshwar Vidya Vardhak Sangha, Kalaburgi
Hon'ble Chancellor, Sharnbasva University Kalaburgi
Trustee, Poojya Sharnbaswappa Appa Family Trust, Sharnbasaveshwar Samsthan, Kalaburgi

Poojya Doddappa S Appa

9th Mahadasoha Peethadhipatti, Sharnbasaveshwar Samsthan, Kalaburgi
Trustee, Poojya Sharnbaswappa Appa Family Trust, Sharnbasaveshwar Samsthan, Kalaburgi

PATRONS

Shri Basavaraj Deshmukh

Honorable Secretary
Sharnbasaveshwar Vidya Vardhak Sangha
Member,BOG, Sharnbasva University Kalaburgi

Dr.Umatai Deshmukh

HoD of OBG, BRIMS
Director Lingaraj Appa Engineering College
Member,BOG, Sharnbasva University Kalaburgi

Shri Sharanabasappa Deshmukh

Director
Lingaraj Appa Engineering College

Keynote Speaker

Dr. Samudra Kulkarni

Chief Veterinary Officer
Govt. of Karnataka

CORDIALLY YOURS

Dr. Vinita Patil

Principal
Lingaraj Appa Engineering College Bidar

All are cordially invited

An awareness program on Rabies Disease was successfully conducted by Dr. Samudra Kulkarni with the objective of educating the public, particularly students and community members, about the causes, symptoms, prevention, and control of this deadly yet preventable disease. The program began with an introduction highlighting the seriousness of rabies as a viral zoonotic disease that spreads from animals to humans, mainly through bites or scratches of infected animals such as dogs. It was emphasized that rabies remains a major public health concern, especially in countries like India, and that nearly 99% of human rabies cases are caused by dog bites. Dr. Kulkarni explained that once symptoms of rabies appear, the disease is almost always fatal, making early prevention and timely medical intervention extremely important.

During the session, Dr. Kulkarni elaborated on the modes of transmission, explaining how the virus spreads through the saliva of infected animals and affects the central nervous system, eventually leading to severe neurological complications and death. The participants were educated about the common symptoms of rabies, including fever, pain at the bite site, confusion, hyperactivity, fear of water (hydrophobia), and paralysis in advanced stages. He also discussed the incubation period, which can vary from a few weeks to several months, depending on the severity and location of the bite.

A major focus of the program was on prevention and control measures. Dr. Kulkarni stressed that rabies is 100% preventable if proper steps are taken immediately after exposure. He explained the importance of washing the wound thoroughly with soap and water for at least 15 minutes and seeking immediate medical care for post-exposure prophylaxis (PEP), which includes vaccination and, in severe cases, administration of rabies immunoglobulin. The role of vaccinating pets, especially dogs, was highlighted as the most effective way to reduce the transmission of rabies in communities. He also encouraged responsible pet ownership and avoiding contact with stray or unknown animals.

The program further included interactive activities such as question-and-answer sessions, distribution of informational pamphlets, and awareness demonstrations to ensure better understanding among participants. Students actively participated and gained practical knowledge about how to respond in case of animal bites and how to prevent rabies through simple but effective measures. Awareness was also created about the importance of community participation in controlling rabies, as public education plays a key role in reducing the incidence of the disease.

In conclusion, the awareness program conducted by Dr. Samudra Kulkarni was highly informative and impactful, successfully achieving its goal of spreading knowledge about rabies prevention and control. The session not only enhanced awareness but also motivated participants to take responsible actions in their daily lives through awareness, timely treatment, and collective community efforts.



Fig. 9.14.10 Rabies Awareness Program

(A) PROGRAM OUTCOME (POs)

Engineering Graduates will be able to:

PO1: Engineering Knowledge: Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified in WK1 to WK4 respectively to develop to the solution of complex engineering problems.

PO2: Problem Analysis: Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development. (WK1 to WK4)

PO3: Design/Development of Solutions: Design creative solutions for complex engineering problems and design/develop systems/components/processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required. (WK5)

PO4: Conduct Investigations of Complex Problems: Conduct investigations of complex engineering problems using research-based knowledge including design of experiments, modelling, analysis & interpretation of data to provide valid conclusions. (WK8).

PO5: Engineering Tool Usage: Create, select and apply appropriate techniques, resources and modern engineering & IT tools, including prediction and modelling recognizing their limitations to solve complex engineering problems. (WK2 and WK6)

PO6: The Engineer and The World: Analyze and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal framework, culture and environment. (WK1, WK5, and WK7).

PO7: Ethics: Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws. (WK9)

PO8: Individual and Collaborative Team work: Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams.

PO9: Communication: Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences

PO10: Project Management and Finance: Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects and in multidisciplinary environments.

PO11: Life-Long Learning: Recognize the need for, and have the preparation and ability for i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change. (WK8)

(B) PROGRAM SPECIFIC OUTCOME (PSOs)

Program should specify 2-4 program specific outcomes.

PSO1	Apply differential integral calculus in mathematics, science and engineering principles specific to electronics and communication engineering
PSO2	Apply the knowledge of electronics and communication engineering principles in VLSI. Signal Processing, Communication, Embedded Systems, Control Engineering, Software and Hardware Programming
PSO3	Conduct experiments, analyse and interpret data, use modern tools in the field of electronics and communication engineering. Demonstrate the leadership qualities and strive for the betterment of organization, environment and society.

Declaration

The head of the institution needs to make a declaration as per the format given -

- I undertake that, the institution is well aware about the provisions in the NBA's accreditation manual concerned for this application, rules, regulations, notifications and NBA expert visit guidelines inforce as on date and the institutes hall fully abide by them.
- It is submitted that information provided in this Self Assessment Report is factually correct.
- I understand and agree that an appropriate disciplinary action against the Institute willbe initiated by the NBA. In case, any false statement/information is observed during pre-visit, visit, postvisit and subsequent to grant of accreditation.

Head of the Institute

Name : Dr. Vinita Patil

Designation : Principal

Signature :



Seal of The Institution :



Place : Bidar

Date : 13-04-2026 22:11:15