NATIONAL BOARD OF ACCREDITATION

Data Capturing Points of the Program Applied for NBA Accreditation– Tier I/II UG (Engineering) Institute Programs

Note: To save Data Capturing Points as PDF Please click on print button and select destination as 'Save as PDF'. PLEASE SELECT LANDSCAPE MODE.

Program Name : Electronics & Communication Engineering	**Discipline**: Engineering & Technology
Level : Under Graduate	**Tier**: 2
Application No: 11613	**Date of Submission**: 12-02-2026

PART A- Profile of the Institute

A1.Name of the Institute: LINGARAJ APPA ENGINEERING COLLEGE	
Year of Establishment : 2011	Location of the Institute: BIDAR KARNATAKA
A2. Institute Address:Lingaraj Appa Engineering CollegeSurvey No. 25, Gornalli,Bidar, Karnataka-585403	
City:Bidar	State:Karnataka
Pin Code:585403	Website:www.lingarajappaec.in
Email:lingarajappaengg@gmail.com	Phone No(with STD Code):-
A3. Name and Address of the Affiliating University (if any):	
Name of the University : VISVESVARAYA TECHNOLOGICAL UNIVERSITY BELGAVI	City: Belgaum
State : Karnataka	Pin Code: 590018
A4. Type of the Institution: Non-Autonomous (Affiliated)	
A5. Ownership Status: Self financing	

A6. Details of all Programs being Offered by the Institution:

- No. of UG programs: **6**
- No. of PG programs: **4**

Table No. A6.1: List of all programs offered by the Institute.

Sr.No.	Discipline	Level of program	Name of the program	Year of Start	Year of Closed	Name of The Department
1	Engineering & Technology	UG	Artificial Intelligence and Machine Learning	2025	--	Artificial Intelligence and Machine Learning
2	Engineering & Technology	UG	Civil Engineering	2011	--	Civil Engineering
3	Engineering & Technology	UG	Computer Science and Engineering	2011	--	Computer Science and Engineering
4	Engineering & Technology	PG	Computer Science and Engineering	2013	--	Computer Science and Engineering
5	Engineering & Technology	UG	Electrical and Electronics Engineering	2011	--	Electrical and Electronics Engineering
6	Engineering & Technology	UG	Electronics & Communication Engineering	2011	--	Electronics and Communication Engineering
7	Engineering & Technology	PG	Machine Design	2013	--	Mechanical Engineering
8	Engineering & Technology	UG	Mechanical Engineering	2011	--	Mechanical Engineering
9	Engineering & Technology	PG	VLSI Design & Embedded Systems	2013	--	Electronics and Communication Engineering
10	Management	PG	Master of Business Administration	2012	--	Management

A7. Programs to be considered for Accreditation vide this Application:

Table No. A7.1: List of programs to be considered for accreditation.

Name of the Department	Having Allied Departments	Name of the Program	Program Level
Electronics and Communication Engineering	No	Electronics & Communication Engineering	UG

Table No. A7.2: Allied Department(s) to the Department of the program considered for accreditation as above.
Cluster ID. Name of the Department (in table no. A7.1) Name of allied Departments/Cluster (for table no. A7.1)

No Record

PART-B: Program information

B1. Provide the Required Information for the Program Applied For:

Table No. B1: Program details.
A. List of the Programs Offered by the Department:

SR.NO.	PROGRAM NAME	PROGRAM APPLIED LEVEL	YEAR OF START / YEAR OF CLOSED	SANCTIONED INTAKE	INCREASE/DECREASE INTAKE (if any)	YEAR OF INCREASE/DECREASE	CURRENT INTAKE	YEAR OF AICTE APPROVAL	AICTE/COMPETENT AUTHORITY ARROVAL DETAILS	AC ST
1	Electronics & Communication Engineering	UG	2011 / --	60	Yes	2025	60	2025	F.No. South-West/1-44638780204/2025/EOA	Ap

Sanctioned Intake for Last Five Years for the VLSI Design & Embedded Systems	
Academic Year	**Sanctioned Intake**
2025-26	60
2024-25	54
2023-24	54
2022-23	54
2021-22	54
2020-21	54

List of the Allied Departments/Cluster and Programs:

B2. Detail of Head of the Department for the program under consideration:

A. Name of the HoD :	Dr. Sharanbasappa Shetkar
B. Nature of appointment:	Regular
C. Qualification:	Ph.D

B3. Program Details

Table No.B3.1: 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

CAY= Current Academic Year. CAYm1= Current Academic Year Minus 1 CAYm2= Current Academic Year Minus 2. LYG= Last Year Graduate. LYGm1= Last Year Graduate Minus 1. LYGm2= Last Year Graduate Minus 2.

B4. Enrolment Ratio in the First Year

Table No. B4.1: 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≡ 20.00

B5. Success Rate of the Students in the Stipulated Period of the Program

Table No.B5.1: 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

B6. Academic Performance of the First-Year Students of the Program

Table No.B6.1: 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

B7: Academic Performance of the Second Year Students of the Program

Table No.B7.1: 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 2rd 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

B8. Academic Performance of the Third Year Students of the Program

Table No.B8.1: 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

B9. Placement, Higher Studies, and Entrepreneurship

Table No.B9.1: 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:

PART C: Faculty Details in Department and Allied Departments

(Data to be filled in for the Department and Allied Departments)

C1. Faculty details of Department and Allied Departments

Table No.C1: Faculty details in the Department for the past 3 years including CAY

Sr.No	Name of the Faculty	PAN No.	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 c NO, of L
1	Dr. Sharanbasappa Shetkar	XXXXXXX78L	Ph.D	Visvesvaraya Technological University	Wireless Communication	01/08/2012	13.6	Assistant Professor	Professor	01/10/2025	Regular	Yes	
2	Dr. Basavalinga Swamy	XXXXXXX58A	Ph.D	Visvesvaraya Technological University	Antenna's /VLSI	01/02/2013	13	Assistant Professor	Associate Professor	01/05/2023	Regular	Yes	
3	Dr. Sagarkumar Buyya	XXXXXXX16M	Ph.D	Visvesvaraya Technological University	Artificial Intelligence	01/08/2012	13.6	Assistant Professor	Associate Professor	01/08/2024	Regular	Yes	
4	Dr. Vinita Patil	XXXXXXX54M	Ph.D	Visvesvaraya Technological University	Image Processing	01/02/2021	5	Professor	Professor	01/02/2021	Regular	Yes	

5	Chowdhary Sadhana Rajendra	XXXXXXX45Q	M.Tech	Visvesvaraya Technological University	Power Electronics	01/08/2013	12.6	Assistant Professor	Assistant Professor		Regular	Yes	
6	Chaya Bhavi	XXXXXXX22Q	M.Tech	Visvesvaraya Technological University	Digital Electronics	01/12/2021	4.2	Assistant Professor	Assistant Professor		Regular	Yes	
7	Lata	XXXXXXX70B	M.Tech	Visvesvaraya Technological University	VLSI	06/12/2022	3.2	Assistant Professor	Assistant Professor		Regular	Yes	
8	Bashetty Pallavi	XXXXXXX37R	M.Tech	Visvesvaraya Technological University	VLSI	21/10/2024	1.3	Assistant Professor	Assistant Professor		Regular	Yes	
9	VIJAYLAXMI	XXXXXXX08G	M.Tech	Visvesvaraya Technological University	Digital Communication and Networking	15/07/2025	0.6	Assistant Professor	Assistant Professor		Regular	Yes	
10	Shravanti	XXXXXXX29M	M.Tech	JNTU, Hyderabad	VLSI System Design	15/07/2025	0.6	Assistant Professor	Assistant Professor		Regular	Yes	
11	Rakesh T	XXXXXXX02R	M.Tech	Dr. Babasaheb Ambedkar Marathwada University	Digital Communication	15/07/2025	0.6	Assistant Professor	Assistant Professor		Regular	Yes	
12	Akshata	XXXXXXX39A	M.Tech	Visvesvaraya Technological University	VLSI	01/01/2026	0.1	Assistant Professor	Assistant Professor		Regular	Yes	
13	Aparna Hugar	XXXXXXX96R	M.Tech	Sharnbasva University	Digita Communication & Networking	01/04/2023	2.3	Assistant Professor	Assistant Professor		Regular	No	14/0
14	Geetanjali Math	XXXXXXX25H	M.Tech	Visvesvaraya Technological University	Signal Processing	01/04/2023	2.1	Assistant Professor	Assistant Professor		Regular	No	17/0
15	Nagesh Dadapur	XXXXXXX76K	M.Tech	JNTU, Hyderabad	Embedded Systems	01/02/2016	8.2	Lecturer	Assistant Professor		Regular	No	30/0
16	Jyoti	XXXXXXX93A	M.Tech	Visvesvaraya Technological University	Digita Communication & Networking	19/04/2024	1.3	Assistant Professor	Assistant Professor		Regular	No	30/0
17	Mahesh Patil	XXXXXXX20M	M.Tech	Visvesvaraya Technological University	Power Electronics	01/07/2024	1.2	Assistant Professor	Assistant Professor		Regular	No	16/0
18	Bhakti Shetkar	XXXXXXX47M	M.Tech	Visvesvaraya Technological University	Digita Communication & Networking	01/08/2022	1.1	Assistant Professor	Assistant Professor		Regular	No	30/0

Table No.C2: Faculty details of Allied Departments for the past 3 years including CAY.

C2. Student-Faculty Ratio (SFR)

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)).

No. of UG Programs in the Department1 No. of PG Programs in the Department1

Table No.C2.1: Student-faculty ratio.

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

Description	CAY(2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)
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**		

C3. Faculty Qualification

- Faculty qualification index (FQI) = 2.5 * [(10X +4Y)/RF] where
- X=No. of faculty members with Ph.D. degree or equivalent as per AICTE/UGC norms.
- Y=No. of faculty members with M. Tech. or ME degree or equivalent as per AICTE/ UGC norms.
- 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 C2 of this documents: (RF=S/20).

Table No.C3.1: Faculty qualification.

Year	X	Y	RF	FQ = 2.5 x [(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

C4. Faculty Cadre Proportion

- Faculty Cadre Proportion is 1(RF1): 2(RF2): 6(RF3)
- RF1= No. of Professors required = 1/9 * No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per C2 of this documents:.
- RF2= No. of Associate Professors required = 2/9 * No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per section C2 of this documents:.
- RF3= No. of Assistant Professors required = 6/9 * No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per section C2 of this documents:.
- Faculty cadre and qualification and experience should be as per AICTE/UGC norms.

Table No.C4.1: Faculty cadre proportion details.

Year	Professors		Associate Professors		Assistant Professors	
	Required RF1	Available AF1	Required RF2	Available AF1	Required RF3	Available AF3
2025-26	1.00	1.00	2.00	3.00	6.00	7.00
2024-25	1.00	1.00	2.00	3.00	6.00	7.00
2023-24	1.00	1.00	2.00	2.00	6.00	7.00
Average	RF1=1.00	AF1=1.00	RF2=2.00	AF2=2.67	RF2=6.00	AF2=7.00

C5. Visiting/Adjunct Faculty/Professor of Practice

Table No. C5.1: List of visiting/adjunct faculty/professor of practice and their teaching and practical loads.

(CAYm1)

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)

(CAYm3)

C6. Academic Research

Table No. C6.1: 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

C7. Sponsored Research Project

Table No. C7.1: List of sponsored research projects received from external agencies.

(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

(CAYm2)

(CAYm3)

Total Amount (Lacs) Received for the Past 3 Years: 30.00

Note*:

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

C8. Consultancy Work

Table No. C8.1: List of consultancy projects received from external agencies.

(CAYm1)

(CAYm2)

(CAYm3)

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

Note*:

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

C9. Institution Seed Money or Internal Research Grant to its Faculty for Research Work

Table No. C9.1: List of faculty members received seed money or internal research grant from the Institution.

(CAYm1)

(CAYm2)

(CAYm3)

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

PART D: Laboratory Infrastructure in the Department

(Data to be filled in for the Department)

D1. Adequate and Well-Equipped Laboratories, and Technical Manpower

Table No.D1.1: List of laboratories and technical manpower.

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 of Electronics & Communication Laboratory	4	CRO, Fixed Power Supplies, Regulated Power Supplies, Transformers, Diodes, Gates, LEDs, Bread Boards	6 Hrs	Abdul Ubaid	Instructor	ITI
2	Analod & Digital Systems Design Laboratory	4	CRO, Fixed Power Supplies, Regulated Power Supplies, Transformers, Diodes, Gates, LEDs, Bread Boards	6 Hrs	Abdul Ubaid	Instructor	ITI
3	C++ Basics Laboratory	2	Desktops	6 Hrs	Rajeshwari	Instructor	Diploma
4	Digital Systems Design Laboratory	2	Desktops, Xilinx ISE 8.1I Software	4 Hrs	Rajeshwari	Instructor	Diploma
5	Electronic Principles Circuits Laboratory	2	Desktops	4 Hrs	Rajeshwari	Instructor	Diploma
6	Communication Laboratory	4	CRO, Fixed Power Supplies, Regulated Power Supplies, Transformers, Diodes, Gates, LEDs, Bread Boards	6 Hrs	Abdul Ubaid	Instructor	ITI
7	Data Structures Lab using C	2	Desktops	6 Hrs	Rajeshwari	Instructor	Diploms

8	Principles of Communication Systems Laboratory	2	Desktops	4 Hrs	Rajeshwari	Instructor	Diploma
9	Control Systems Laboratory	2	Desktops	4 Hrs	Rajeshwari	Instructor	Diploma
10	Digital Communication Laboratory	2	Desktops	6 Hrs	Rajeshwari	Instructor	Diploma
11	Digital Signal Processing Laboratory	2	Desktops	4 Hrs	Rajeshwari	Instructor	Diploma
12	VLSI Design & Testing Laboratory	2	Desktops, CADENCE Software	6 Hrs	Rajeshwari	Instructor	Diploma
13	IoT Laboratory	2	Desktops, Arduino UNO	6 Hrs	Rajeshwari	Instructor	Diploma
14	Embedded System Design Laboratory	2	Desktops, ARM Cortex M3 Kits	4 Hrs	Rajeshwari	Instructor	Diploma
15	Microwave Engineering & Antenna Theory Laboratory	4	Klystron Power Supply,VSWR meter, RF meters,Isollator,Klyston tube.	4 Hrs	Abdul Ubaid	Instructor	ITI
16	Computer Networks and Protocols Laboratory	2	Desktops	4 Hrs	Rajeshwari	Instructor	Diploma
17	Langauge Laboratory	2	Desktops, IANGUAGE GURU SOFTEWARE	1Hrs	Anil	Instructor	Diploma

D2. Safety Measures in Laboratories

Table No. D2.1: List of various safety measures in laboratories.

Sr. No	Laboratory Name	Safety Measures
1	C++ Basics Lab (BEC358C) Data Structure Lab Using C (BECL456)	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.
2	IoT Lab (BECL657C)	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.
3	Digital Signal Processing (BEC502)	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.

4	Embedded System Design (BEC601)	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.
5	Microwave Engineering and Antenna Theory (BEC701)	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 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.
6	Communication Lab (BECL404)	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.
7	VLSI Lab (BECL606)	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 .

D3. Project Laboratory/Research Laboratory

PART E: First Year faculty and financial Resources

(Data to be filled in for the first year course faculty and budget allocation and utilization)

E1. First Year Student-Faculty Ratio (FYSFR)

Table No. E1.1: FYSFR details.

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

E2. Budget Allocation, Utilization, and Public Accounting at Institute Level

Table No. E2.1: Budget and actual expenditure incurred at Institute level.

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	6000000	5823690	5000000	6004315	3000000	3372658	4000000	4046844
Library	1000000	730153	1000000	1288467	1000000	798425	800000	463542
Laboratory equipment	4000000	3972123	300000	191330	3500000	2112598	4000000	4186615
Teaching and non-teaching staff salary	36000000	34844632	30000000	34295946	27500000	28109229	25000000	25644589
Outreach Programs	800000	878292	1000000	1247883	350000	534040	250000	301602
R&D	4000000	4104238	800000	828061	300000	210520	300000	510520
Training, Placement and Industry linkage	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	12000000	14359497	10000000	11522658	7500000	13895251	5000000	6227315
Total	**64800000**	**66097796**	**48600000**	**55922610**	**43650000**	**49633621**	**39850000**	**41831027**

E3. Budget Allocation, Utilization, and Public Accounting at Program Specific Level

Table No. E3.1: Budget and actual expenditure incurred at program level.

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 development	25000	35876	25000	48443	25000	30000	10000	10000
R & D	4000000	3942581	500000	623764	25000	27000	25000	10000
Industrial Training, Industry expert,	25000	10000	25000	60000	25000	15000	25000	15000
Miscellaneous Expenses*	1000000	1282174	500000	431628	200000	171408	200000	193972
Total	**6060000**	**6153643**	**1210000**	**1275169**	**395000**	**341194**	**520000**	**514972**