NATIONAL BOARD OF ACCREDITATION

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

Program Name : Biomedical Engineering	**Discipline**: Engineering & Technology
Level : Under Graduate	**Tier**: 1
Application No: 11133	**Date of Submission**: 24-10-2025

PART A- Profile of the Institute

A1.Name of the Institute: Jerusalem College of Engineering	
Year of Establishment : 1995	Location of the Institute: Pallikkaranai Chennai
A2. Institute Address:Velachery-Tambaram Main Road Narayanapuram, Pallikkaranai, Chennai	
City:Chennai	State:Tamil Nadu
Pin Code:600100	Website:www.jerusalemengg.ac.in
Email:JERUSALEMENGG@GMAIL.COM	Phone No(with STD Code):044-66199500
A3. Name and Address of the Affiliating University (if any):	
Name of the University :	City: Chennai
State : Tamil Nadu	Pin Code: 600025
A4. Type of the Institution: Autonomous CAY(2019-20)	
A5. Ownership Status: Self financing	

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

- No. of UG programs: **10**
- No. of PG programs: **6**

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	PG	Applied Electronics	2004	--	Applied Electronics
2	Engineering & Technology	UG	Artificial Intelligence and Data Science	2021	--	Artificial Intelligence and Data Science
3	Engineering & Technology	UG	Biomedical Engineering	2004	--	Biomedical Engineering
4	Engineering & Technology	UG	Civil Engineering	2001	2022	Civil Engineering
5	Engineering & Technology	UG	Computer Science and Business System	2021	--	Computer Science and Business System
6	Engineering & Technology	UG	Computer Science and Engineering	1995	--	Computer Science and Engineering
7	Engineering & Technology	PG	Computer Science and Engineering	2003	--	Computer Science and Engineering
8	Engineering & Technology	UG	Computer Science and Engineering (Artificial Intelligence & Machine Learning)	2022	--	Computer Science and Engineering (Artificial Intelligence and Machine Learning)

9	Engineering & Technology	UG	Computer Science and Engineering (Cyber Security)	2022	--	Computer Science and Engineering (Cyber Security)
10	Engineering & Technology	PG	Construction Engineering & Management	2011	--	Construction Engineering and Management
11	Engineering & Technology	UG	Electrical & Electronics Engineering	1995	--	Electrical and Electronics Engineering
12	Engineering & Technology	UG	Electronics & Communication Engineering	1995	--	Electronics and Communication Engineering
13	Engineering & Technology	UG	Information Technology	1999	--	Information Technology
14	Engineering & Technology	PG	Power Electronics & Drives	2003	--	Power Electronics and Drives
15	Engineering & Technology	PG	Software Engineering	2012	2023	Software Engineering
16	Management	PG	Master of Business Administration	2009	--	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
Biomedical Engineering	Yes	Biomedical Engineering	UG
Computer Science and Engineering	Yes	Computer Science and 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)

Allied Department/Cluster Name	Program Name	Program Level
Electronics and Communication Engineering	Electronics & Communication Engineering	UG
Applied Electronics	Applied Electronics	PG

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	ACCREDITATION STATUS	FROM	TO	NO. OF TIMES PROGRAM ACCREDITED	PROGRAM DURATION
1	Biomedical Engineering	UG	2004 / --	60	Yes	2024	60	2024	1-43657334358/2024	Granted accreditation for 3 years for the period (specify period)	2022	2025	2	4

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	ACCREDITATION STATUS	FROM	TO	NO. OF TIMES PROGRAM ACCREDITED	PROGRAM DURATION

Sanctioned Intake for Last Five Years for the Biomedical Engineering	
Academic Year	**Sanctioned Intake**
2025-26	60
2024-25	60
2023-24	54
2022-23	54
2021-22	54
2020-21	54

List of the Allied Departments/Cluster and Programs:

SR.NO.	ALLIED DEPARTMENT NAME	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	ACCREDITATION STATUS	FROM	TO	NO. OF TIMES PROGRAI ACCREDI
1	Electronics and Communication Engineering	Electronics & Communication Engineering	UG	1995 / --	60	Yes	2006	60	2006	730-52-264(E)/ET/97	Granted accreditation for 3 years for the period (specify period)	2024	2027	3

Sanctioned Intake for Last Five Years for the Electronics & Communication Engineering	
Academic Year	**Sanctioned Intake**
2025-26	60
2024-25	60
2023-24	60
2022-23	60
2021-22	60
2020-21	90

2	Applied Electronics	Applied Electronics	PG	2004 / --	18	Yes	2021	6	2021	1-9323249208/2021	Eligible but not applied	--	--	0

Sanctioned Intake for Last Five Years for the Applied Electronics	
Academic Year	**Sanctioned Intake**
2025-26	6
2024-25	6
2023-24	6
2022-23	6
2021-22	6
2020-21	18

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

A. Name of the HoD :	J SAMUEL MANOHARAN
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	60	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	52	34	39	47	53	19	48
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	0	0	0	2	0	0
N3=Separate division if any	0	0	0	0	0	0	1
N4=Total no. of students admitted in the 1st year via all supernumerary quotas	0	0	0	0	0	0	0
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	52	34	39	47	55	19	49

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	52	0	86.67
2024-25 (CAYm1)	60	34	0	56.67
2023-24 (CAYm2)	54	39	0	72.22

Average [(ER1 + ER2 + ER3) / 3] = 71.85≡ 14.00

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).	56.00	54.00	54.00
B=No. of students who graduated from the program in the stipulated course duration	52.00	16.00	47.00
Success Rate (SR)= (B/A) * 100	92.86	29.63	87.04

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 69.84

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)
X=(Mean of 1st 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 1st year/10)	7.91	7.97	8.09
Y=Total no. of successful students	34.00	38.00	47.00
Z=Total no. of students appeared in the examination	34.00	39.00	49.00
API [X*(Y/Z)]	7.91	7.76	7.76

Average API[(AP1+AP2+AP3)/3] : 7.81

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)	8.04	8.06	7.60
Y=Total no. of successful students	38.00	47.00	55.00
Z=Total no. of students appeared in the examination	38.00	47.00	55.00
API [X * (Y/Z)]	8.04	8.06	7.60

Average API [(AP1 + AP2 + AP3)/3] : 7.90

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)	8.30	7.60	9.00
Y=Total no. of successful students	47.00	55.00	18.00
Z=Total no. of students appeared in the examination	47.00	55.00	19.00
API [X*(Y/Z)]:	8.30	7.60	8.53

Average API [(AP1 + AP2 + AP3)/3] : 8.14

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	56.00	54.00	54.00
X=No. of students placed	47.00	15.00	37.00
Y=No. of students admitted to higher studies	5.00	1.00	10.00
Z= No. of students taking up entrepreneurship	1.00	0.00	0.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	94.64	29.63	87.04

Average Placement Index = (P_1 + P_2 + P_3)/3: 70.44 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 case of NO, Date of Leaving	IS HOD?
1	J SAMUEL MANOHARAN	XXXXXXX42N	Ph.D	KARUNYA UNIVERSITY	IMAGE PROCESSING	01/08/2024	1.2	Professor	Professor	01/08/2024	Regular	Yes		Yes
2	R. ANITHA	XXXXXXX90C	Ph.D	Anna University	Wireless Communication	27/01/2022	3.8	Professor	Professor	27/01/2022	Regular	Yes		No
3	V SUBHA RAMYA	XXXXXXX38F	M.E.	Anna University	Applied Electronics	01/07/2024	1.3	Assistant Professor	Assistant Professor		Regular	Yes		No
4	S PURNIMA	XXXXXXX47D	M.E.	Anna University	Medical Electronics	06/07/2006	19.3	Lecturer	Assistant Professor		Regular	Yes		No
5	S LAVANYA	XXXXXXX39G	M.E.	Sathyabama University	Applied Electronics	18/07/2022	3.3	Assistant Professor	Assistant Professor		Regular	Yes		No
6	B NIVETHA	XXXXXXX98N	M.E.	Anna University	Applied Electronics	01/08/2019	6.2	Assistant Professor	Assistant Professor		Regular	Yes		No
7	PRISCILLA SHARLET ASHA	XXXXXXX02K	M.E.	SRM University	Biomedical Engineering	20/06/2025	0.4	Assistant Professor	Assistant Professor		Regular	Yes		No
8	KIFA KHAIRUNNISA	XXXXXXX08A	M.E.	Anna University	Biomedical Engineering	07/07/2025	0.3	Assistant Professor	Assistant Professor		Regular	Yes		No
9	R JASWANTH	XXXXXXX75Q	M.E.	Anna University	Biomedical Engineering	16/07/2025	0.3	Assistant Professor	Assistant Professor		Regular	Yes		No
10	J SOFIA BOBBY	XXXXXXX02Q	Ph.D	Anna University	Cognitive Neurosciences	06/12/2010	14.5	Assistant Professor	Professor		Regular	No	30/05/2025	No
11	V MYTHILY	XXXXXXX40K	M.E.	Anna University	Biomedical Sciences	06/07/2020	4.10	Assistant Professor	Assistant Professor		Regular	No	30/05/2025	No
12	C L ANNAPOORANI	XXXXXXX27C	M.Tech	Anna University	Sports Medicine Engineering	25/06/2012	12.11	Assistant Professor	Assistant Professor		Regular	No	30/05/2025	No
13	P NANDHINI	XXXXXXX75A	M.E.	Anna University	Image Processing	17/12/2010	13.5	Assistant Professor	Associate Professor	29/06/2012	Regular	No	31/05/2024	No
14	S AMBIKA	XXXXXXX35N	M.Tech	IIT Madras	Instrumentation	03/01/2022	2.4	Associate Professor	Associate Professor		Regular	No	31/05/2024	No
15	R KISHORE KANNA	XXXXXXX58D	Ph.D	Bharat University	Brain Computer Interface	01/08/2023	0.10	Assistant Professor	Assistant Professor		Regular	No	29/06/2024	No

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

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	P GNANASIVAM	XXXXXXX51C	XXXXXXXXX266	Ph.D	Anna University	Biometrics	24/06/2019	6.4	Professor	Professor		Regular	Yes		No
2	SHEEJA V FRANCIS	XXXXXXX67M	XXXXXXXXX533	Ph.D	Anna University	Image Processing	01/07/2019	6.3	Professor	Professor		Regular	Yes		Yes
3	S ARUN	XXXXXXX86M	XXXXXXXXX900	Ph.D	Singhania University	Communication Engineering	01/08/2022	3.2	Professor	Professor		Regular	Yes		No
4	G MERLIN SHEEBA	XXXXXXX22M	XXXXXXXXX785	Ph.D	Sathyabama University	Communication Systems	01/08/2022	3.2	Professor	Professor		Regular	Yes		No
5	S BHAVANI SANKARI	XXXXXXX10K	XXXXXXXXX837	M.Tech	Visveswaraya Technological University	Industrial Electronics	03/08/1998	27.2	Assistant Professor	Associate Professor	02/07/2012	Regular	Yes		No
6	G T BHARATHY	XXXXXXX48L	XXXXXXXXX414	Ph.D	Vels University	Communication Systems	07/12/2005	19.10	Assistant Professor	Associate Professor	19/12/2016	Regular	Yes		No
7	T.TAMILSELVI	XXXXXXX78R	XXXXXXXXX917	Ph.D	Vels University	Embedded System Technology	06/07/2006	19.3	Assistant Professor	Associate Professor	19/12/2016	Regular	Yes		No
8	S LAVANYA DEVI	XXXXXXX18C	NA	M.E.	Anna University	Power Electronics and Drives	24/05/2019	4.11	Assistant Professor	Assistant Professor		Regular	No	30/04/2024	No
9	K RAJA SARANYA	XXXXXXX71A	XXXXXXXXX642	M.E.	Anna University	Applied Electronics	05/03/2014	11.7	Assistant Professor	Assistant Professor		Regular	Yes		No
10	N KANNIYAPPAN	XXXXXXX25C	XXXXXXXXX702	M.E.	Anna University	Communication Systems	01/07/2019	6.3	Assistant Professor	Assistant Professor		Regular	Yes		No
11	N RAMYA	XXXXXXX00J	NA	M.E.	Anna University	Applied Electronics	02/01/2020	4.4	Assistant Professor	Assistant Professor		Regular	No	31/05/2024	No
12	L SUGASINI	XXXXXXX53P	NA	M.E.	Anna University	Power Electronics and Drives	02/01/2020	4.4	Assistant Professor	Assistant Professor		Regular	No	31/05/2024	No
13	R MALATHY	XXXXXXX39M	NA	M.E.	Anna University	Communication Systems	01/03/2022	3.7	Assistant Professor	Assistant Professor		Regular	Yes		No
14	S A SARANYA	XXXXXXX11M	XXXXXXXXX559	M.E.	Anna University	Applied Electronics	02/03/2022	3.7	Assistant Professor	Assistant Professor		Regular	Yes		No

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	60	54	54
UG1.C	54	54	56
UG1.D	54	56	54
UG1: Biomedical Engineering	**168**	**164**	**164**
UG2.B	61	64	63
UG2.C	64	63	66
UG2.D	63	66	99
UG2: Electronics & Communication Engineering	**188**	**193**	**228**
DS=Total no. of students in all UG and PG programs in the Department	168	164	164
AS=Total no. of students of all UG and PG programs in allied departments	200	205	240
S=Total no. of students in the Department (DS) and allied departments (AS)	**S1=** 368	**S2=** 369	**S3=** 404
DF=Total no. of faculty members in the Department	9	9	10
AF= Total no. of faculty members in the allied Departments	11	11	14
F=Total no. of faculty members in the Department (DF) and allied Departments (AF)	**F1=** 20	**F2=** 20	**F3=** 24
FF=The faculty members in F who have a 100% teaching load in the first-year courses	0	0	0
Student Faculty Ratio (SFR)=S/(F-FF)	**SFR1= 18.40**	**SFR2= 18.45**	**SFR3= 16.83**
Average SFR for 3 years	**SFR= 17.89**		

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)	7	13	18.00	16.94
2024-25(CAYm1)	7	13	18.00	16.94
2023-24(CAYm2)	7	17	20.00	17.25

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	2.00	6.00	4.00	1.00	12.00	13.00
2024-25	2.00	7.00	4.00	0.00	12.00	13.00
2023-24	2.00	6.00	4.00	0.00	13.00	18.00
Average	RF1=2.00	AF1=6.33	RF2=4.00	AF2=0.33	RF2=12.33	AF2=14.67

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	Dr. Karthic Narayanan R	Chief Technology Officer	Made It Innovation Foundation	e-Protoshop	60.00

(CAYm2)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr. A. Lokesh	Expert in VFX & Unreal Design and Development	IVW Technology Services	Gaming & Crafts Studio	60.00

(CAYm3)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr. P. Bala Simhadri	Embedded Senior Trainer	Vector India Pvt Ltd	Biomedical Instrumentation Lab	60.00

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	4	7	10
2	No. of peer reviewed conference papers published	15	30	12
3	No. of books/book chapters published	1	7	3

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. J. Samuel Manoharan	Nil	Student Projects Scheme	Low cost portable Electromyography (EMG) device for muscle activity monitoring	Tamil Nadu State Council for Science and Technology	One Year	0.07
Dr. J. Sofia Bobby	Nil	R & D Grant-in-Aid Scheme	A Smart Personalized medical Dispensing sytem	IEI Research	One Year	0.35
Ms. V. Subha Ramya	Nil	Student Projects Scheme	Design and development of a wearable device for monitoring mental well-being	Tamil Nadu State Council for Science and Technology	One Year	0.75
Dr. J. Sofia Bobby	Nil	Student Projects Scheme	IOT based IV infusion monitoring system	Tamil Nadu State Council for Science and Technology	One Year	0.07
						Amount received (Rs.):1.24

(CAYm2)

(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
Dr. J. Sofia Bobby	Nil	Innovation Voucher Programme	Cost effecient Oxygen Concentrator for Emergency Patient	Entrepreneurship Development and Innovation Institute	One Year	5.00
Ms. S. Lavanya	Nil	Innovation Voucher Programme	Automatic Airbag for Deep Divers	Entrepreneurship Development and Innovation Institute	One Year	2.40
						Amount received (Rs.):7.40

Total Amount (Lacs) Received for the Past 3 Years: 8.64

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)

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
						Amount received (Rs.):0

(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
Dr. Kishore Kanna	Ms. S. Lavanya	Biomedical Engineeering	Intelligent Battery Management System	IVW Pvt. Ltd	2 years	5.00
						Amount received (Rs.):5.00

(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
Dr. J. Sofia Bobby	Ms. C. L. Annapoorani	Biomedical Engineering	Underwater Drone	Vaiyagam Foundation	2 years	6.35
						Amount received (Rs.):6.35

Total amount (Lacs) received for the past 3 years: 11.35

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)

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
Dr.R.Anitha	Cloud Computing Approach in Healthcare Technology and Application: A Review	1 year	0.02	0.01	paper published in Scopus
Dr.R.Anitha	Computational Machine Learning Approach for Brain Impairment	1 year	0.02	0.01	paper published in Scopus
Dr.R.Anitha	Innovative Cognitive Stroke Detection Analysis using Deep Learning Methodology	1 year	0.02	0.01	paper published in Scopus
Dr.R.Anitha	Smart Cloud Computing Approach for Electronic based Health Record System	1 year	0.02	0.01	paper published in Scopus
Dr.R.Anitha	Computational Approach for Cardiac Defect Detection using CNN Approach	1 year	0.02	0.01	paper published in Scopus
Ms.CL. Annapoorani, Dr.J. Sofia Bobby, Ms.V.Subha Ramya, Ms. V.Mythili	Self-powered Energy Harvesting Wearable Monitor	1 year	0.02	0.01	paper published in Scopus
Dr.J.Samuel Manoharan	Adaptive forest fire optimization algorithm	1 year	0.03	0.03	SCI
Dr.J.Samuel Manoharan	Optimized deep learning models	1 year	0.02	0.02	Scopus
Ms. Subha Ramya V	Segmentation of Brain Tumors	1 year	0.02	0.01	Scopus
Ms.S.Purnima	Optimizing Neural Prosthetic Control Systems	1 year	0.02	0.01	Scopus
Ms.S.Purnima	Computational Review on Cognitive Analysis	1 year	0.02	0.01	Scopus
Ms.C.L.Annapoorani	Analysis of EMG parameters to predict fatigue	1 year	0.02	0.01	Scopus
Ms.B.Nivetha	AI Approaches to Managing Ménière's Disease	1 year	0.02	0.01	Scopus
Ms.B.Nivetha	Graphene-Integrated Wearable System for Remote Health Monitoring""	1 year	0.02	0.01	Scopus
Ms.B.Nivetha	Transformer-Based Multi-Modal	1 year	0.02	0.01	Scopus
Dr.J.Sofia Bobby	Employing IoT in Biomedical Devices	1 year	0.02	0.01	Scopus
Dr.J.Sofia Bobby	Evaluation Methods for studying Muscle Fatigue	1 year	0.02	0.01	Scopus
Dr.J.Sofia Bobby	IOT based Intravenous Infusion monitoring	1 year	0.02	0.01	Patent
Dr.J.Sofia Bobby	Self powered Energy Harvesting	1 year	0.02	0.01	Patent
V. Subha Ramya	AI powered Nail disease	1 year	0.02	0.02	Patent
Dr.J.Sofia Bobby	Self powered Energy Harvesting	6 Months	0.05	0.05	Best Student Project
Ms.B.Nivetha	Transformer-Based Multi-Modal	6 Months	0.05	0.05	Best Student Project
Ms.C.L.Annapoorani	Analysis of EMG parameters to predict fatigue	6 Months	0.05	0.05	Best Student Project
V. Subha Ramya	FDP	15 days	0.02	0.02	Vel Tech
Ms.B.Nivetha	FDP	15 days	0.02	0.02	Vel Tech
Dr.J.Sofia Bobby	Medical Conclave	3 days	0.01	0.01	Tagore Hospital
Ms.C.L.Annapoorani	FDP	15 days	0.02	0.02	CIT
Dr.J.Sofia Bobby	FDP	15 days	0.02	0.02	CIT

			Amount received (Rs.): 0.65		

(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
J.Sofia bobby,C.L.Annapoorani, ,B.Nivedha,Ms.S.Lavanya	Cost Effective Blood collection monitor for Emergency patients	1 year	0.01	0.01	IEEE conference
J.Sofia bobby, V.Mythily,C.L.Annapoorani, S.Purnima	Detection of Anemia from Palpebral image of Anterior conjunctiva using SVM classifier	1 year	0.01	0.01	IEEE conference
V.Mythily	Patient Treatment classification using machine Learning	1 year	0.01	0.01	IEEE conference
J.Sofia Bobby	Optimized Feature Selection for Brain Cancer Detection	1 year	0.01	0.01	IEEE conference
J.Sofia bobby, Ms.S.Lavanya,B.Nivedha, R.Anitha	Lower limbs design for paralytic patients using 3D printing	1year	0.01	0.01	IEEE conference
S.Purnima	Neural Network Classification of Resting State fMRI Data	1year	0.01	0.01	IEEE conference
R Kishore Kanna	Study On Diabetic Conditions Monitoring Using Deep Learning	1year	0.01	0.01	IEEE conference
R Kishore Kanna	Smart Prosthetic Arm Using Cognitive Application	1year	0.01	0.01	IEEE conference
R Kishore Kanna	Cognitive Disability Prediction & Analysis using Machine Learning Application	1year	0.01	0.01	IEEE conference
R Kishore Kanna	Ensemble Feature Extraction with Classification Integrated with Mask	1year	0.01	0.01	IEEE conference
R Kishore Kanna	"Smart Detection and Removal of Artifacts	1year	0.01	0.01	IEEE conference
R Kishore Kanna	Big Data Analytics: Understanding Its Capabilities re Organizations	1year	0.01	0.01	IEEE conference
R Kishore Kanna	Utilization of Spatial Filtering for Enhancement of Fingerprint Images	1year	0.01	0.01	IEEE conference
R Kishore Kanna	Optimization of Network Performance using MPLS	1year	0.01	0.01	IEEE conference
R Kishore Kanna	Extracting Features Using Discrete Wavelet	1year	0.01	0.01	IEEE conference
R Kishore Kanna	Strategies of Artificial intelligence tools in the domain of nanomedicine	1year	0.01	0.01	IEEE conference
R Kishore Kanna	Design of a Digital Rf Beacon To Rescue The Soldiers Trapped In Ice Glaciers.	1year	0.01	0.01	IEEE conference
R Kishore Kanna	Smart Assist System Module for Paralysed Patient Using IoT Application	1year	0.01	0.01	EAI conference
R Kishore Kanna	Clinical Application of Neural Network for Cancer Detection Application.	1year	0.01	0.01	EAI conference
R Kishore Kanna	Machine Learning Based Stroke Predictor Application.	1year	0.01	0.01	EAI conference
R Kishore Kanna	Anxiety Controlling Application using EEG Neurofeedback System.	1year	0.01	0.01	EAI conference
R Kishore Kanna	CNN Based Face Emotion Recognition System for Healthcare Application.	1year	0.01	0.01	EAI conference
R Kishore Kanna	Detection of Brain Tumour based on Optimal Convolution Neural Network.	1year	0.01	0.01	EAI conference
R Kishore Kanna	Patient Monitoring System for COVID Care Using Biosensor Application	1year	0.01	0.01	Springer
R Kishore Kanna	Prediction of Covid-19 Using Artificial Intelligence [AI] Applications	1year	0.01	0.01	Springer
R Kishore Kanna	Convolutional Neural Network Application for Detection & Classification of Brain Tumour	1year	0.01	0.01	IEEE conference
R Kishore Kanna	Machine Learning Based Cardiovascular Detection Approach	1year	0.01	0.01	IEEE conference
R Kishore Kanna	Modern 3d Compression Application in Medical Imaging Approach	1year	0.01	0.01	IEEE conference
R Kishore Kanna	Detection of Emotion Employing Deep Learning Modelling Approach	1year	0.01	0.01	IEEE conference

R Kishore Kanna	Systematic Cognitive Computing Framework Application Using Medical Information Processing	1year	0.01	0.01	IEEE conference
R Kishore Kanna	Machine Learning Based of Cardiac Attack Prediction Application	1year	0.01	0.01	IEEE conference
R Kishore Kanna	Radiological Imaging Techniques Using Dwt Methodology	1year	0.01	0.01	IEEE conference
Annapoorani C L	Rehabilitation of Injured muscles	1year	0.05	0.05	patent
S.Lavanya	Automatic Airbag for deep sea divers	1year	0.05	0.05	patent
Nivetha B	Lower limb	1year	0.05	0.05	patent
Purnima S	Virtual Reality	1year	0.05	0.05	patent
J.Sofia Bobby	Cost Effective and blood	1year	0.05	0.05	patent
J.Sofia Bobby	Cost Effective and blood	6 months	0.05	0.05	Best Project Award
Nivetha B	Lower limb	6 months	0.05	0.05	Best Project Award
Annapoorani C L	Rehabilitation of Injured muscles	6 months	0.05	0.05	Best Project Award
S. Lavanya	Automatic Airbag for deep sea divers	6 months	0.05	0.05	Best Project Award
Annapoorani C L	2 weeks FDP programme	2 weeks	0.02	0.02	EGS Pillay Engg. College
R Kishore Kanna	2 weeks FDP programme	2 weeks	0.02	0.02	Sona College of Technology
R Kishore Kanna	2 weeks FDP programme	2 weeks	0.02	0.02	Vel Tech High Tech
R Kishore Kanna	Smart Prosthetic Arm Using Cognitive Application	6 months	0.05	0.05	Best Project Award
R Kishore Kanna	Convolutional Neural Network Application for Detection & Classification of Brain Tumour	6 months	0.05	0.05	Best Project Award
Dr. R. Anitha	Intelligent Crutch Tool for body posture management	1 month	0.30	0.30	Prototype Development
R Kishore Kanna	FDP	2 weeks	0.02	0.02	St. Josephs College of Engineering
Dr. R. Anitha	FDP	1 week	0.01	0.01	CIT
			Amount received (Rs.): 1.26		

(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
R.Anitha	A Novel Approach for design energy effficient inexactreversecarry select adders for IOT Applications	1 year	0.03	0.03	Web of science
R.Anitha	Equity Price Forecast from Index using Fbprophet	1 year	0.02	0.02	Scopus
R.Anitha	Hybrid Optimization with Recurrent Neural network based Medical image Processing	1 year	0.03	0.03	Web of science
R.Anitha	Intelligent crutch tool for body posture management system to avoid injuries	1 year	0.02	0.02	Scopus
J.Sofia Bobby	QCBO-WSVM	1 year	0.03	0.03	Web of science
J.Sofia Bobby	Smart Glove for Elderly Patients	1 year	0.01	0.01	Scopus
S.Purnima	Compact Wireless HRV using Node MCU	1 year	0.01	0.01	Scopus
Annapoorani C L	"Rehabilitation Of Sprained Ankle Using Internet Of Things Technology"	1 year	0.01	0.01	Scopus
Annapoorani C L	Applications of Image Detection in diabetic retinopathy using Deep learning	1 year	0.01	0.01	Scopus
J.Sofia Bobby	"Cost efficient oxygen concentrator with PSA technology"	1 year	0.01	0.01	Scopus
J.Sofia Bobby	A Novel Enzymatic Route to Extract Biodiesel from Plant Seeds	1 year	0.01	0.01	Scopus
R.Anitha	IOT Based Greenhouse Montoring system	1 year	0.01	0.01	Scopus
R.Anitha	Design and Analysis of an Intelligent Stress Detection Technique	1 year	0.01	0.01	Scopus
R.Anitha	Wireless Network based ICU Patient Monitoring system	1 year	0.01	0.01	Scopus
R.Anitha	Automated Anaesthesia Control system with patient monitoring	1 year	0.01	0.01	Scopus
R.Anitha	Medical Waste Treatment	1 year	0.02	0.02	Patent
J.Sofia Bobby	FDP	2 weeks	0.02	0.02	Vels Tech
Annapoorani C L	Rehabilitation Of Sprained Ankle Using Internet Of Things Technology	6 months	0.05	0.05	Best Project
R.Anitha	IOT Based Greenhouse Montoring system	6 months	0.05	0.05	Best Project
J.Sofia Bobby	Smart Glove for Elderly Patients	6 months	0.05	0.05	Best Project
S.Purnima	Compact Wireless HRV using Node MCU	6 months	0.05	0.05	Best Project
J.Sofia Bobby	Cost efficient oxygen concentrator with PSA technology	6 months	0.05	0.05	Best Project
Annapoorani C L	FDP	2 weeks	0.02	0.02	Vels Tech
R.Anitha	FDP	2 weeks	0.02	0.02	Vels Tech
R.Anitha	FDP	2 weeks	0.02	0.02	Agni College of Tech
J.Sofia Bobby	A Novel Enzymatic Route to Extract Biodiesel from Plant Seeds	6 months	0.05	0.05	Best Project
R.Anitha	Design and Analysis of an Intelligent Stress Detection Technique	6 months	0.05	0.05	Best Project
S.Purnima	FDP	1 week	0.01	0.01	Vels Tech
			Amount received (Rs.): 0.69		

Total amount (Lacs) received for the past 3 years : 2.60

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	ML 301 Integrated Circuits	3	Cathode Ray Oscilloscope	85%	Mr. Damodharan	Lab Instructor	B.E
2	ML 302 Biosignal and Image Processing Laboratory	1	3D Slicer	70%	Mr. Damodharan	Lab Instructor	B.E
3	ML 304 Diagnostic and Therapeutic Laboratory	2	Audiogram	75%	Mr. Damodharan	Lab Instructor	B.E
4	ML 305 Biosciences Laboratory	3	Spectrophotometer	60%	Ms. Nithya	Lab Instructor	B.E
5	ML 106 Micro Controller and Micro Processor Laboratory s Laboratory	3	MASM Software	90%	Mr. Raja Boopathi	Lab Instructor	Diploma
6	ML 101 Signals and Systems Laboratory	1	MATLAB Software	90%	Mr. Kamala Kannan	Lab Instructor	B.E

D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures
1	Integrated Circuits Laboratory	1.Specific Safety Rules in the form of Do's and Don'ts are displayed in the Laboratory. Well-trained technical supporting staff is available to monitor the labs at all times. 2.First aid box, Fire extinguishers are kept in the laboratory. Periodical servicing of the lab equipment. 3.Proper earthing has been done for all Electrical Equipment. 4.Maintain a clean and organized laboratory. 5.Avoiding the use of cell phones. 6.Appropriate storage areas Permission denied for pen drives. 7.Sign the log-in register before leaving the lab. 8.Computers should be turned off properly before leaving the lab. 9.Students must remove their footwear before entering to the lab. 10.The student must check the computer unit and its Peripherals attached before using it. The student must immediately inform the instructor if there's any defect, error, or damage observed at the computer (Hardware/software).
2	Project Laboratory	1.Specific Safety Rules in the form of Do's and Don'ts are displayed in the Laboratory. Well-trained technical supporting staff is available to monitor the labs at all times. 2.First aid box, Fire extinguishers are kept in the laboratory. Periodical servicing of the lab equipment. 3.Proper earthing has been done for all Electrical Equipment. 4.Maintain a clean and organized laboratory. 5.Avoiding the use of cell phones. 6.Appropriate storage areas Permission denied for pen drives. 7.Sign the log-in register before leaving the lab. 8.Computers should be turned off properly before leaving the lab. 9.Students must remove their footwear before entering to the lab. 10.The student must check the computer unit and its Peripherals attached before using it. The student must immediately inform the instructor if there's any defect, error, or damage observed at the computer (Hardware/software).

3	Diagnostic and Therapeutic Laboratory	1.Specific Safety Rules in the form of Do's and Don'ts are displayed in the Laboratory. Well-trained technical supporting staff is available to monitor the labs at all times. 2.First aid box, Fire extinguishers are kept in the laboratory. Periodical servicing of the lab equipment. 3.Proper earthing has been done for all Electrical Equipment. 4.Maintain a clean and organized laboratory. 5.Avoiding the use of cell phones. 6.Appropriate storage areas Permission denied for pen drives. 7.Sign the log-in register before leaving the lab. 8.Computers should be turned off properly before leaving the lab. 9.Students must remove their footwear before entering to the lab. 10.The student must check the computer unit and its Peripherals attached before using it. The student must immediately inform the instructor if there's any defect, error, or damage observed at the computer (Hardware/software).
4	Biosciences Laboratory	1.Specific Safety Rules in the form of Do's and Don'ts are displayed in the Laboratory. Well-trained technical supporting staff is available to monitor the labs at all times. 2.First aid box, Fire extinguishers are kept in the laboratory. Periodical servicing of the lab equipment. 3.Proper earthing has been done for all Electrical Equipment. 4.Maintain a clean and organized laboratory. 5.Avoiding the use of cell phones. 6.Appropriate storage areas Permission denied for pen drives. 7.Sign the log-in register before leaving the lab. 8.Computers should be turned off properly before leaving the lab. 9.Students must remove their footwear before entering to the lab. 10.The student must check the computer unit and its Peripherals attached before using it. The student must immediately inform the instructor if there's any defect, error, or damage observed at the computer (Hardware/software).
5	Biosignal & Image Processing Laboratory	1.Specific Safety Rules in the form of Do's and Don'ts are displayed in the Laboratory. Well-trained technical supporting staff is available to monitor the labs at all times. 2.First aid box, Fire extinguishers are kept in the laboratory. Periodical servicing of the lab equipment. 3.Proper earthing has been done for all Electrical Equipment. 4.Maintain a clean and organized laboratory. 5.Avoiding the use of cell phones. 6.Appropriate storage areas Permission denied for pen drives. 7.Sign the log-in register before leaving the lab. 8.Computers should be turned off properly before leaving the lab. 9.Students must remove their footwear before entering to the lab. 10.The student must check the computer unit and its Peripherals attached before using it. The student must immediately inform the instructor if there's any defect, error, or damage observed at the computer (Hardware/software).
6	Microprocessor & Microcontrollers Laboratory	1.Specific Safety Rules in the form of Do's and Don'ts are displayed in the Laboratory. Well-trained technical supporting staff is available to monitor the labs at all times. 2.First aid box, Fire extinguishers are kept in the laboratory. Periodical servicing of the lab equipment. 3.Proper earthing has been done for all Electrical Equipment. 4.Maintain a clean and organized laboratory. 5.Avoiding the use of cell phones. 6.Appropriate storage areas Permission denied for pen drives. 7.Sign the log-in register before leaving the lab. 8.Computers should be turned off properly before leaving the lab. 9.Students must remove their footwear before entering to the lab. 10.The student must check the computer unit and its Peripherals attached before using it. The student must immediately inform the instructor if there's any defect, error, or damage observed at the computer (Hardware/software).
7	Signals and Systems Laboratory	1.Specific Safety Rules in the form of Do's and Don'ts are displayed in the Laboratory. Well-trained technical supporting staff is available to monitor the labs at all times. 2.First aid box, Fire extinguishers are kept in the laboratory. Periodical servicing of the lab equipment. 3.Proper earthing has been done for all Electrical Equipment. 4.Maintain a clean and organized laboratory. 5.Avoiding the use of cell phones. 6.Appropriate storage areas Permission denied for pen drives. 7.Sign the log-in register before leaving the lab. 8.Computers should be turned off properly before leaving the lab. 9.Students must remove their footwear before entering to the lab. 10.The student must check the computer unit and its Peripherals attached before using it. The student must immediately inform the instructor if there's any defect, error, or damage observed at the computer (Hardware/software).

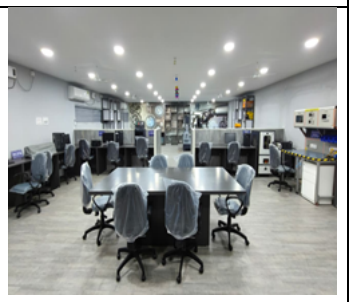
D3. Project Laboratory/Research Laboratory

The Project Laboratory of the Biomedical Engineering Department acts as a dedicated learning and innovation hub where students and faculty explore, design, and validate biomedical systems. The facility integrates computational resources with biomedical equipment, enabling users to convert theoretical knowledge into meaningful prototypes and research outcomes. The environment supports continuous experimentation, collaborative learning, and exposure to real-time biomedical applications, helping students strengthen their analytical, design, and diagnostic competencies.

Key Features and Utilization

- The laboratory serves as a platform for experimental learning, supporting major projects, prototype development, modelling studies, and interdisciplinary research.
- Students actively participate in design-based assignments, clinical problem simulation, and hands-on device development, utilizing the laboratory's infrastructure.
- A dedicated departmental resource section provides reference books, online learning content, recorded demonstrations, and project archives to aid exploration and self-learning.
- The facility is kept open for extended hours to support testing of biomedical devices, long-duration data acquisition, and iterative refinement of student projects.
- Students are encouraged to follow recent biomedical research trends through journals, clinical engineering articles, white papers, and online repositories.
- The laboratory supports the development of practical, industry-relevant skills, enabling students to assemble, customize, and evaluate biomedical circuits and systems.
- Step-wise video demonstrations are made available for topics such as sensor interfacing, biomedical signal capture, safety procedures, and calibration techniques.
- Learners are also guided to use Virtual Biomedical Labs offered by national platforms to supplement physical experimentation and enhance conceptual clarity.

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

S.No	LABORATORY	NAME OF THE FACILITIES	UTILIZATION	PHOTO
1.	PROJECT/RESEARCH Laboratory	Intel ® Core ™ i5-4460 CPU 3.20 GHZ, 500GB HDD, 4GB RAM	Utilized for · Project work (VIII semester), · mini projects (VI semester) · Science day /hackathon projects · Research activities for faculty members · Conducting value added courses and workshops · Conducting active learning activities · Lab demonstration	
2.	IDEA Laboratory	Intel ® Core ™ i7-12700 CPU 2.10 GHZ, 1TB SSD HDD, 32GB RAM,WINVER 22H2 WINDOWS 10 PRO	Utilized for · Research activities for faculty members. · Research work for PG / Ph.D Students. · Conducting active learning activies. · Conducting value added courses and workshops	

3.	FABRICATION Laboratory	3D PRINTER, LASER CUTTER, PCB FABRICATION UNIT, SOLDERING STATION, EMBEDDED DEVELOPMENT KITS AND BIOSENSOR PROTOTYPE MATERIALS	Utilized for · Project work and Research prototypes · Fabrication of biomedical devices. · Workshops on PCB design, biosensor fabrication, and device prototyping.	
4.	MSME approved Incubation Center	• COMPUTERS WITH MATLAB, LABVIEW, SOLIDWORKS, COMSOL AND OPENSIM • BIOMEDICAL DATA ANALSYSIS TOOLS, TESTING /VALIDATION KITS FOR BIOMEDICAL PROTOTYPES, BUSINESS MODEL CANVAS & DOCUMENTATION SUPPORT TOOLS	Utilized for · Prototype testing and documentation · Clinication validation, design thinking, regulatory pathways and product development · MSME Idea Hackathons and startup competitions	

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)	516	26	19	32	83
2024-25(CAYm1)	516	26	19	41	90
2025-26(CAY)	570	28	23	49	101

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	12500000	11200435	9500000	9342666	8000000	5049651	8000000	8435604
Library	1000000	802278	1450000	1479742	1100000	1138697	1000000	1035869
Laboratory equipment	4000000	3530418	13500000	13438508	12500000	14947458	3500000	3420591
Teaching and non-teaching staff salary	112000000	81517735	101000000	101466726	80000000	85751043	77500000	78583048
Outreach Programs	5000000	1625747	4750000	4812392	3000000	3069990	0	0
R&D	4000000	3203053	2200000	2107382	2500000	2284972	2500000	2336021
Training, Placement and Industry linkage	3500000	2843722	2500000	2428479	2450000	2323891	1300000	1321531
SDGs	5000000	3044930	4800000	4886035	4500000	4272587	0	0
Entrepreneurship	250000	100000	500000	570000	200000	225000	0	0
Others, specify	101500000	56960623	95500000	96168882	91500000	93235094	72050000	71636110
Total	**248750000**	**164828941**	**235700000**	**236700812**	**205750000**	**212298383**	**165850000**	**166768774**

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	250000	69512	600000	598995	500000	461871	450000	431302
Software	500000	450000	100000	85043	0	0	600000	592355
SDGs	600000	372924	500000	488626	500000	448460	500000	473876
Support for faculty development	100000	51100	50000	45500	15000	13200	25000	14240
R & D	100000	27000	100000	64750	135000	126000	75000	69000
Industrial Training, Industry expert, Internship	500000	217572	175000	185577	25000	19400	125000	101868

Miscellaneous Expenses*	4500000	2646266	3500000	3434586	3500000	3306501	1500000	1744182
Total	**6550000**	**3834374**	**5025000**	**4903077**	**4675000**	**4375432**	**3275000**	**3426823**