

NATIONAL BOARD OF ACCREDITATION

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

Program Name : Biotechnology	Discipline : Engineering & Technology
Level : Under Graduate	Tier : 1
Application No : 10526	Date of Submission : 26-04-2025

PART A- Profile of the Institute

A1.Name of the Institute : KARUNYA INSTITUTE OF TECHNOLOGY AND SCIENCES	
Year of Establishment : 1986/1990	Location of the Institute: Coimbatore
A2. Institute Address :KARUNYA NAGAR	
City:--Select--	State:Tamil Nadu
Pin Code:641114	Website:www.karunya.edu
Email:KU@KARUNYA.EDU	Phone No(with STD Code):0422-2614310
A3. Name and Address of the Affiliating University (if any):	
Name of the University : NIL	City:
State :	Pin Code: 0
A4. Type of the Institution : Deemed University	
A5. Ownership Status : Self financing	

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

- No. of UG programs: **15**
- No. of PG programs: **13**

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	Advanced Manufacturing Technology	2015	2023	Mechanical Engineering
2	Engineering & Technology	UG	Aerospace Engineering	2009	--	Aerospace Engineering
3	Engineering & Technology	PG	Aerospace Engineering	2019	--	Aerospace Engineering
4	Engineering & Technology	UG	Artificial Intelligence and Data Science	2020	--	Data Science and Cyber Security
5	Engineering & Technology	UG	Biomedical Engineering	2014	--	Biomedical Engineering
6	Engineering & Technology	PG	Biomedical Instrumentation	2017	--	Biomedical Engineering
7	Engineering & Technology	UG	Biotechnology	2005	--	Biotechnology
8	Engineering & Technology	PG	Biotechnology	2007	--	Biotechnology
9	Engineering & Technology	UG	Civil Engineering	1986	--	Civil Engineering
10	Engineering & Technology	PG	Communication Systems	2009	2022	Electronics and Communication Engineering

11	Engineering & Technology	UG	Computer Engineering	2020	--	Data Science and Cyber Security
12	Engineering & Technology	PG	Computer Science and Engineering	2002	--	Computer Science and Engineering
13	Engineering & Technology	UG	Computer Science and Engineering	1994	--	Computer Science and Engineering
14	Engineering & Technology	UG	Computer Science and Engineering (Artificial Intelligence & Machine Learning)	2021	--	Artificial Intelligence and Machine Learning
15	Engineering & Technology	UG	Computer Science and Engineering (Artificial Intelligence)	2021	--	Artificial Intelligence and Machine Learning
16	Engineering & Technology	PG	Cyber Security	2019	--	Computer Science and Engineering
17	Engineering & Technology	UG	Electrical & Electronics Engineering	1994	--	Electrical and Electronics Engineering
18	Engineering & Technology	UG	Electronics & Communication Engineering	1986	--	Electronics and Communication Engineering
19	Engineering & Technology	UG	Electronics & Computer Engineering	2021	--	Electronics and Communication Engineering
20	Engineering & Technology	UG	Food Processing and Engineering	2005	--	Food Processing Technology
21	Engineering & Technology	PG	Food Processing and Engineering	2008	--	Food Processing Technology
22	Engineering & Technology	PG	Integrated Water Resources Management	2009	--	Civil Engineering
23	Engineering & Technology	UG	Mechanical Engineering	1986	--	Mechanical Engineering
24	Engineering & Technology	PG	Robotics & Automation	2020	--	Robotics Engineering
25	Engineering & Technology	UG	Robotics and Automation	2018	--	Robotics Engineering
26	Engineering & Technology	PG	Structural Engineering	1996	--	Civil Engineering
27	Engineering & Technology	PG	VLSI Design	2004	--	Electronics and Communication Engineering
28	Management	PG	Master of Business Administration	1994	--	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
Biotechnology	No	Biotechnology	UG
Computer Science and Engineering	Yes	Computer Science and Engineering	UG
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 APPROVAL DETAILS	ACCREDITATION STATUS	FROM	TO	NO. OF TIMES PROGRAM ACCREDITED	PROGRAM DURATION
1	Biotechnology	UG	2005 / --	120	Yes	2018	120	2018	F.No.Southern/2018-19/1-3672511631	Granted accreditation for 3 years for the period (specify period)	2022	2025	2	4

Sanctioned Intake for Last Five Years for the Biotechnology

Academic Year	Sanctioned Intake
2024-25	120
2023-24	90
2022-23	90
2021-22	120
2020-21	120
2019-20	120

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. Jibu Thomas
B. Nature of appointment:	Regular
C. Qualification:	M.Sc. and PhD

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)	2024-25 (CAY)	2023-24 (CAYm1)	2022-23 (CAYm2)	2021-22 (CAYm3)	2020-21 (CAYm4)	2019-20 (CAYm5)	2018-19 (CAYm6)
N=Sanctioned intake of the program (as per AICTE /Competent authority)	120	90	90	120	120	120	120
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	67	89	87	74	105	83	69
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	0	0	0	1	0	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	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.	67	89	87	74	106	83	69

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]
2024-25 (CAY)	120	67	0	55.83
2023-24 (CAYm1)	90	89	0	98.89
2022-23 (CAYm2)	90	87	0	96.67

Average [(ER1 + ER2 + ER3) / 3] = 83.80≡ 17.00

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	(2020-21) LYG	(2019-20) LYGm1	(2018-19) 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).	121.00	120.00	120.00
B=No. of students who graduated from the program in the stipulated course duration	104.00	80.00	58.00
Success Rate (SR)= (B/A) * 100	85.95	66.67	48.33

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 66.98

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(2023-24)	CAYm2(2022-23)	CAYm3 (2021-22)
Mean of CGPA or mean percentage of all successful students(X)	6.66	6.90	6.98
Y=Total no. of successful students	88.00	86.00	65.00
Z=Total no. of students appeared in the examination	89.00	87.00	74.00
API [X*(Y/Z)]	6.59	6.82	6.13

Average API[(AP1+AP2+AP3)/3] : 6.51

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 (2023-24)	CAYm2 (2022-23)	CAYm3 (2021-22)
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)	6.93	6.93	7.07
Y=Total no. of successful students	86.00	64.00	105.00

Z=Total no. of students appeared in the examination	86.00	65.00	106.00
API [X * (Y/Z)]	6.93	6.82	7.00

Average API [(AP1 + AP2 + AP3)/3] : 6.92

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 (2023-24)	CAYm2 (2022-23)	CAYm3 (2021-22)
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)	6.93	7.06	7.01
Y=Total no. of successful students	64.00	104.00	81.00
Z=Total no. of students appeared in the examination	64.00	105.00	81.00
API [X*(Y/Z)]:	6.93	6.99	7.01

Average API [(AP1 + AP2 + AP3)/3] : 6.98

B9. Placement, Higher Studies, and Entrepreneurship

Table No.B9.1: Placement, higher studies, and entrepreneurship details.

Item	LYG (2020-21)	LYGm1(2019-20)	LYGm2(2018-19)
FS*=Total no. of final year students	121.00	120.00	120.00
X=No. of students placed	74.00	59.00	37.00
Y=No. of students admitted to higher studies	27.00	17.00	19.00
Z= No. of students taking up entrepreneurship	0.00	0.00	0.00
Placement Index(P) = ((X + Y + Z)/FS) * 100):	83.47	63.33	46.67

Average Placement Index = (P_1 + P_2 + P_3)/3: 64.49 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	Dr. Annie John	XXXXXXXX94B	M.Sc. and PhD	University of Kerala	Biomaterials and Tissue Engineering	03/01/2024	1.3	Professor	Professor	03/01/2024	Regular	Yes		No
2	Dr. V.M. Berlin Grace	XXXXXXXX52F	M.Sc. and PhD	University of Madras	Biochemistry	06/06/2005	19.10	Assistant Professor	Professor	01/05/2010	Regular	Yes		No

3	Dr. M. Lakshmi Prabha	XXXXXXXX88M	M.Sc. and PhD	Bharathiar University	Biochemistry	10/07/2006	18.9	Lecturer	Assistant Professor		Regular	Yes		No
4	Dr. C. Vani	XXXXXXXX73M	M.Sc. and PhD	Bharathiar University	Animal Biotechnology	15/06/2009	15.10	Assistant Professor	Assistant Professor		Regular	Yes		No
5	Dr. D. Premnath	XXXXXXXX20L	ME/M. Tech and PhD	Karunya Institute of Technology and Sciences	Pharmaceutical Technology	23/11/2007	17.5	Lecturer	Assistant Professor		Regular	Yes		No
6	Dr. M.S.A. Muthu Kumar Nadar	XXXXXXXX63J	M.Sc. and PhD	National Chung Hsing University, Taiwan	Microbial Gene Technology	01/06/2011	13.10	Assistant Professor	Assistant Professor		Regular	Yes		No
7	Dr. Levin Anbu Michele Gomez	XXXXXXXX54H	ME/M. Tech and PhD	Karunya Institute of Technology and Sciences	Industrial Biotechnology	01/07/2008	16.9	Lecturer	Assistant Professor		Regular	Yes		No
8	Dr. T. Jesse Joel	XXXXXXXX08C	M.Sc. (Microbiology) and Ph.D.	Sam Higginbottom Institute of Agriculture, Technology & Sciences, Allahabad	Microbial Biotechnology	10/08/2012	12.8	Assistant Professor	Assistant Professor		Regular	Yes		No
9	Dr. Anu Jacob	XXXXXXXX89R	ME/M. Tech and PhD	Karunya Institute of Technology and Sciences	Biotechnology	01/06/2010	14.10	Lecturer	Assistant Professor		Regular	Yes		No
10	Dr. Satya Sundar Mohanty	XXXXXXXX06E	ME/M. Tech and PhD	National Institute of Technology, Rourkela	Biotechnology and Medical Engineering	05/07/2021	3.9	Assistant Professor	Assistant Professor		Regular	Yes		No
11	Dr. Jissin Mathew	XXXXXXXX51Q	M.Sc. (Microbiology) and Ph.D.	Karunya Institute of Technology and Sciences	Microbial Biotechnology	16/08/2021	3.8	Assistant Professor	Assistant Professor		Regular	Yes		No
12	Dr. Dibyajyoti Haldar	XXXXXXXX40F	ME/M. Tech and PhD	National Institute of Technology, Agartala	Biotechnology	08/09/2021	3.3	Assistant Professor	Assistant Professor		Regular	No	17/12/2024	No
13	Dr. Neelanjan Bhattacharjee	XXXXXXXX11Q	ME/M. Tech and PhD	University of Calcutta	Chemical Engineering	24/05/2022	2.11	Assistant Professor	Assistant Professor		Regular	Yes		No
14	Dr. I. Sybiya Vasantha Packiavathy	XXXXXXXX91F	M.Sc. (Biotechnology) and PhD	Alagappa University, Karaikudi	Biotechnology	01/07/2022	1.10	Assistant Professor	Assistant Professor		Regular	No	17/05/2024	No
15	Dr. Steffi Avarave	XXXXXXXX77F	M.Sc. (Microbiology) and Ph.D.	Karunya Institute of Technology and Sciences	Microbial Biotechnology	30/07/2022	1.9	Assistant Professor	Assistant Professor		Regular	No	17/05/2024	No
16	Dr. V. Leena Sharan	XXXXXXXX03N	ME/M. Tech and PhD	Karunya Institute of Technology and Sciences	Biotechnology	30/07/2022	1.4	Assistant Professor	Assistant Professor		Regular	No	30/11/2023	No

17	Dr. Tikole Suhas Shivaji	XXXXXXXX32K	ME/M. Tech and PhD	Goethe University, Germany	Bioinformatics	30/06/2023	0.5	Assistant Professor	Assistant Professor		Regular	No	30/11/2023	No
18	Ms. Karen Christina	XXXXXXXX38N	M.E/M.Tech	Karunya Institute of Technology and Sciences	Biotechnology	01/08/2023	1.8	Assistant Professor	Assistant Professor		Regular	Yes		No
19	Mrs. Umapriya R	XXXXXXXX46N	M.Sc. (Biotechnology)	Bharathiar University	Biotechnology	01/08/2023	1.8	Assistant Professor	Assistant Professor		Regular	Yes		No
20	Ms. CH Sai Prasanna	XXXXXXXX21R	M.E/M.Tech	Osmania University, Hyderabad	Biotechnology	01/08/2023	0.9	Assistant Professor	Assistant Professor		Regular	No	15/05/2024	No
21	Dr. Gayathri Sundar	XXXXXXXX17J	M.Sc. (Biotechnology) and PhD	University of Kerala	Biotechnology	08/02/2024	1.2	Assistant Professor	Assistant Professor		Regular	Yes		No
22	Dr. Rebu Sundar	XXXXXXXX40D	M.Sc. and PhD	University of Kerala	Biochemistry	15/02/2024	1.2	Assistant Professor	Assistant Professor		Regular	Yes		No
23	Dr. Ridling Margaret Waller	XXXXXXXX27M	M.Sc. and PhD	University of Madras	Animal Biotechnology	28/06/2017	7.7	Professor	Professor	28/06/2017	Regular	No	31/01/2025	No
24	Dr. Jibu Thomas	XXXXXXXX49D	M.Sc. and PhD	Bharathiar University	Plant Biotechnology	01/06/2010	14.10	Assistant Professor	Professor	02/08/2021	Regular	Yes		Yes
25	Dr. S. Murugan	XXXXXXXX51G	M.Sc. (Microbiology) and Ph.D.	Bharathiar University	Microbial Biotechnology	24/07/2008	16.9	Assistant Professor	Associate Professor	01/05/2017	Regular	Yes		No
26	Dr. I. Reya Issac	XXXXXXXX84J	ME/M. Tech and PhD	Karunya Institute of Technology and Sciences	Industrial Biotechnology	18/06/2007	17.10	Lecturer	Associate Professor	01/12/2020	Regular	Yes		No
27	Dr. S. Kavitha	XXXXXXXX92N	M.Sc. (Microbiology) and Ph.D.	Bharathiar University	Microbial Biotechnology	28/01/2008	17.3	Lecturer	Associate Professor	01/12/2020	Regular	Yes		No
28	Dr. R.S. David Paul Raj	XXXXXXXX93G	M.Sc. and PhD	University of Madras	Plant Biotechnology	01/06/2010	14.10	Assistant Professor	Associate Professor	01/12/2020	Regular	Yes		No
29	Dr. Biswanath Mahanty	XXXXXXXX51F	ME/M. Tech and PhD	IIT, Guwahati	Biotechnology	18/07/2016	8.9	Assistant Professor	Associate Professor	02/11/2020	Regular	Yes		No

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(2024-25)	CAYm1 (2023-24)	CAYm2 (2022-23)
UG1.B	90	90	120
UG1.C	90	120	120
UG1.D	120	120	120
UG1: Biotechnology	300	330	360
PG1.A	20	20	20
PG1.B	20	20	20
PG1: Biotechnology	40	40	40
DS=Total no. of students in all UG and PG programs in the Department	340	370	400
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= 340	S2= 370	S3= 400
DF=Total no. of faculty members in the Department	22	24	22
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= 22	F2= 24	F3= 22
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= 13.08	SFR2= 13.70	SFR3= 16.00
Average SFR for 3 years	SFR= 14.26		

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 = $2.5 \times [(10X + 4Y) / RF]$
2024-25(CAY)	20	10	16.00	37.50
2023-24(CAYm1)	21	10	18.00	34.72
2022-23(CAYm2)	21	8	19.00	31.84

C4. Faculty Cadre Proportion

- Faculty Cadre Proportion is 1(RF1): 2(RF2): 6(RF3)
- RF1= No. of Professors required = $1/9 * \text{No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per C2 of this documents.}$
- RF2= No. of Associate Professors required = $2/9 * \text{No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per section C2 of this documents.}$
- RF3= No. of Assistant Professors required = $6/9 * \text{No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per section C2 of this documents.}$
- 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
2024-25	1.00	3.00	3.00	5.00	11.00	14.00
2023-24	2.00	3.00	4.00	5.00	12.00	16.00
2022-23	2.00	3.00	4.00	5.00	13.00	14.00
Average	RF1=1.67	AF1=3.00	RF2=3.67	AF2=5.00	RF2=12.00	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. Mary Mkandswire Ency T	Senoir Research Scientist	ENCYT Technologies Inc. Sydney, Canada	Molecular Biology	50.00

(CAYm2)

(CAYm3)

C6. Academic Research

Table No. C6.1: Faculty publication details.

S.No.	Item	2023-24 (CAYm1)	2022-23 (CAYm2)	2021-22 (CAYm3)
1	No. of peer reviewed journal papers published	82	106	73
2	No. of peer reviewed conference papers published	1	0	1
3	No. of books/book chapters published	17	14	6

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. M.S.A. Muthukumar Nadar	Dr. I.V. Muthu Vijayan Enoch	Biotechnology	Development of a photoconvertible drug screening system against replication inhibitors of Japanese encephalitis virus for high-throughput applications	BIRAC	8th March 2024 – 7th Sep. 2026 (18 months)	46.03
Dr. Jibu Thomas	Dr. Haldar	Biotechnology	Development of an integrated process for Co-production of Biobutanol from sugarcane trash and lignin nano particles (LNPS) as green carrier for Bactericidal agents	CSIR	5th Dec. 2023 -4th Dec. 2026 (36 months)	25.80
Dr. M. S. A. Muthukumar Nadar	Dr. Levin Anbu	Biotechnology	Development of Non-infectious Ternary Report surrogate system for SARS-CoV 2 comprising of a replaceable RBD cassette for rapid assessment of Vaccine efficiency against emergent variants of concern	ICMR	15th March 2024 – 14th March 2027 (36 months)	46.26
						Amount received (Rs.):118.09

(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. Jibu Thomas	Dr. Haldar	Biotechnology	Development of an integrated process for Co-production of Biobutanol from sugarcane trash and lignin nano particles (LNPS) as green carrier for Bactericidal agents	CSIR	5th Dec. 2023 -4th Dec. 2026 (36 months)	25.80
						Amount received (Rs.):25.80

(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. Murugan	Dr. B Vidhya	Biotechnology	Investigation on the antibacterial effect of bismuth vanadate on multi drug resistant Staphylococcus aureus infection	DST-SERB	2020 - April 2022 (36 months)	26.31
						Amount received (Rs.):26.31

Total Amount (Lacs) Received for the Past 3 Years: 170.20

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
Dr. Jibu Thomas	NIL	Biotechnology	Autodespenser	HLL Life care Ltd.	20.09.2023	8.50
Dr. Jibu Thomas	NIL	Biotechnology	Plant Tissue Culture Training	Ms. Ujwala Raga Peta, Coimbatore	31.10.2023	0.01
Dr. C. Vani	NIL	Biotechnology	E.Coli & Enterococcus SP - Sample 2	Ms. B. Kanmani, C.I.T	16.02.2024	0.06
Dr. Jibu Thomas	NIL	Biotechnology	Efficacy of homeopathy mother Tincture Calendula in alleviating photo inhibition-induced oxidative stress in banana plant tissue culture – An In-vitro study	S. Elakkiya, Martin homeopathy Medical College and Hospital	29.04.2024	0.10
Dr. Jibu Thomas	NIL	Biotechnology	Experimental study on reactive oxygen species scavenging capacities of homeopathic metal group remedies in Phaseolus vulgaris under combined drought and heat-induced oxidative stress.	Ms. M Prabha Devi, Martin homeopathy Medical College and Hospital	30.05.2024	0.10
						Amount received (Rs.):8.77

(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. Jibu Thomas	NIL	Biotechnology	Workshop on Techniques in Molecular Biology.	Dept. of Biotech, KG CAS, Coimbatore	09.11.2022	0.37
						Amount received (Rs.):0.37

(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. Jibu Thomas & Dr. Murugan S	NIL	Biotechnology	Certificate Course on Operations in Pharmaceutical Industry	Anna University, Chennai, Vellore Institute of Technology, Kristu Jayanti College, Bangalore, Dr. D.Y. Patil Biotechnology and Bioinformatics Institute, Pune, Mother Teresa Womens University, Kodaikanal, KLE Technological University, Hubli. Bannari Amman Institute of Technology, Sathyamangalam. Bharathiar University, Coimbatore, Cochin University of Science and Technology, Cochin. Mount Carmel College, Bangalore, Manipal Academy of Higher Education, Dubai Campus	19.07.21 to 04.08.21	0.68
Dr. Jibu Thomas	NIL	Biotechnology	Essential Techniques in Biosciences	RVS college of Arts and Science, Coimbatore, Mother Teresa Women's University, Kodaikanal, University of Agricultural Sciences, Dharwad, Manipal Academy of Higher Education, Dubai, Campus	09.08.21 to 13.08.21	0.13
Dr. Jibu Thomas	NIL	Biotechnology	Essential Techniques in Biosciences	Sree Narayan Guru College, Chellanur, Providence Women's College, Calicut, Zamorin's Guruvayurappan College, Kozhikode	13.09.21 to 17.09.21	0.16
Dr. Jibu Thomas	NIL	Biotechnology	Digital Imaging Analysis	Mrs. Mercy Ebin, Sarah Tucker College, Tirunelveli	25.11.2021	0.03
Dr. Jibu Thomas	NIL	Biotechnology	Internship on Molecular and Analytical Techniques	Internship	24.01.22 to 25.02.22	0.66
Dr. Jibu Thomas	NIL	Biotechnology	Analysis of herbal sample	Ms. Sneha S, Nirmala College	02.04.2022	0.01
						Amount received (Rs.):1.67

Total amount (Lacs) received for the past 3 years: 10.81

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. David Paul Raj R S	Dried banana peel powder for biocontrol	12 months	1.19	1.19	Patent granted
Dr. David Paul Raj R S	Coating of seeds of Melina arborea	12 months	1.09	1.09	Patent granted
Dr. David Paul Raj R S	Eco-Friendly Honey Bee Repellent Herbal Spray	6 months	0.48	0.48	Patent Published
Dr. V.M Berlin Grace	Novel active targeted Lipo – Quercetin	6 months	0.40	0.40	Patent Published
Dr. Jibu Thomas	Biomimetic Nanocomposite Scaffold	6 months	0.39	0.39	Patent Published
			Amount received (Rs.): 3.55		

(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
Ms. Leena Sharon	Marine algae incorporated oil for wound healing	3 months	0.15	0.15	Publication
Dr. S. Murugan	Investigating Bismuth vanadate as antimicrobial agent and the synergistic effects with antibiotics	1.8 months	0.18	0.18	IAESTE student research guidance (Susanne Moser, University of Natural Resources and Life Sciences Vienna" Austria)
Dr. Jibu Thomas	Extraction and Characterization of Antimicrobial and Antioxidant Compounds from Microalgae	2 months	0.20	0.20	IAESTE student research guidance (Sophie Schmid, University of Zurich, Switzerland)
Dr. David Paul Raj R S	Edible and biodegradable cutlery as a nutritional supplement and a Method of making thereof	6 Months	0.54	0.54	Patent Published
			Amount received (Rs.): 1.07		

(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
Dr. Jibu Thomas	A Novel Herbal Disinfecting Composition and Dispensing Device Thereof	1 Year	1.24	1.24	Patent granted
Dr. Vani C and Dr. Jissin Mathew	A Process for Isolating Polyglycine Compound from Xenorhabdus Stockiae	1 Year	1.01	1.24	Patent granted
Dr. Jibu Thomas	Kavid – Karunya Disinfection Chamber	1 Year	0.90	0.90	Patent granted
			Amount received (Rs.): 3.15		

Total amount (Lacs) received for the past 3 years : 7.77

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	Molecular Biology & Genetic Engg. Lab	30	<input type="checkbox"/> Electrophoresis System <input type="checkbox"/> UV Transilluminator <input type="checkbox"/> Digital pH meter <input type="checkbox"/> Serological Waterbath <input type="checkbox"/> UV Visible Spectrophotometer <input type="checkbox"/> Refrigerated Micro Centrifuge	21	Mr. K. Abraham Iyyadurai	Lab Technician	B.Sc. Botany
2	Microbiology Lab	30	Incubator •Phase Contrast Tissue Culture Microscope •Electronic Balance •Colony Counter •Microscope Incubation Chamber	8	Mr. D. Poomalai	Lab Technician	M.Sc. Botany
3	Cell Biology - Immunology Lab	30	Water bath Shaker Matri-MC 4050 <input type="checkbox"/> Spectrophotometer <input type="checkbox"/> Research Centrifuge <input type="checkbox"/> Orbital Shaker <input type="checkbox"/> Airflow <input type="checkbox"/> Magnetic Stirrer <input type="checkbox"/> Electroporation	8	Mr. K. Abraham Iyyadurai	Lab Technician	B.Sc. Botany

4	Bioprocess Lab	30	<input type="checkbox"/> Colorimeter <input type="checkbox"/> Spectrophotometer <input type="checkbox"/> Incubator <input type="checkbox"/> Mechanical Shaker <input type="checkbox"/> Revolution Centrifuge <input type="checkbox"/> Water Bath	12	Mr. S. Panneerselvam	Lab Technician	M.Sc Chemistry
5	Down Stream Processing Lab	30	Water bath Shaker Matri-MC 4050 Fermentor Colorimeter Orbital Shaker Laminar Airflow Magnetic Stirrer Ball Mill Emulsifier EC TDS analyzer	12	Mr. S. Panneerselvam	Lab Technician	M.Sc Chemistry
6	Plant Tissue Culture Lab	30	Laminar Air Hood Autoclave pH Meter Refrigerator Refrigerated Incubator Cum Shaker Monocular Microscope UV-EC TDS Conductivity Meter Glass Bead	9	Mr. S. Panneerselvam	Lab Technician	M.Sc Chemistry
7	Animal Tissue Culture Lab	30	Electronic Balance Autoclave Laminar Air Flow Zoom Stereo Microscope CO2 Incubator Membrane Filter Assembly Magnetic Stirrer Monocular Microscope	4	Mr. D. Poomalai	Lab Technician	M.Sc. Botany
8	Biochemistry Lab	30	Colorimeter Digital Nephelometer Bollman Extractor Magnetic Stirrer Incubator Microwave Oven Sieve Shaker Set	14	Mr. P. Jeyakumar	Lab Technician	MSc Environmental Scien
9	Algae Biomass Lab	30	Deep freezer Spinwin micro centrifuge Thermal cycler UV –transilluminator Air conditioner Algae growth chamber Microscope with documentation system	8	Mr. P. Jeyakumar	Lab Technician	MSc Environmental Scien

D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures
1	Molecular Biology & Genetic Engg. Lab	<ul style="list-style-type: none"> • Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. • Contact details of the Lab in charge and technicians and emergency contact numbers are also displayed in the entrance of the lab. • First aid box and fire extinguishers are kept in each laboratory. • It is mandatory for Students to wear Lab Apron. • Gloves, head cover and face masks are available in the lab. • Mouth pipetting is prohibited hence micro-pipettes and pipette aids are provided for dispensing liquids. • Well trained technical supporting staff monitor the laboratory at all times. • Damaged equipment are identified and serviced at the earliest. • Periodical calibration of the lab equipment is regularly done. • Microbial cultures, culture vessels and reagents are decontaminated after use by autoclaving. • Cleanliness and hygiene is maintained by regular cleaning and mopping the work table lab floor with appropriate disinfectant. • CCTV camera (which stores data up to 20 days) is available in the lab for monitoring and as a record if needed in future. • Suitable fire extinguisher is provided inside the lab.
2	Cell biology & Immunology Lab	<ul style="list-style-type: none"> • Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. • Contact details of the Lab in charge and technicians and emergency contact numbers are also displayed in the entrance of the lab. • First aid box and fire extinguishers are kept in each laboratory. • It is mandatory for Students to wear Lab Apron. • Gloves, head cover and face masks are available in the lab. • Mouth pipetting is prohibited hence micro-pipettes and pipette aids are provided for dispensing liquids. • Well trained technical supporting staff monitor the laboratory at all times. • Damaged equipment are identified and serviced at the earliest. • Periodical calibration of the lab equipment is regularly done. • Microbial cultures, culture vessels and reagents are decontaminated after use by autoclaving. • Cleanliness and hygiene is maintained by regular cleaning and mopping the work table lab floor with appropriate disinfectant. • CCTV camera (which stores data up to 20 days) is available in the lab for monitoring and as a record if needed in future. • Suitable fire extinguisher is provided inside the lab.
3	Microbiology Lab	<ul style="list-style-type: none"> • Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. • Contact details of the Lab in charge and technicians and emergency contact numbers are also displayed in the entrance of the lab. • First aid box and fire extinguishers are kept in each laboratory. • It is mandatory for Students to wear Lab Apron. • Gloves, head cover and face masks are available in the lab. • Mouth pipetting is prohibited hence micro-pipettes and pipette aids are provided for dispensing liquids. • Well trained technical supporting staff monitor the laboratory at all times. • Damaged equipment are identified and serviced at the earliest. • Periodical calibration of the lab equipment is regularly done. • Microbial cultures, culture vessels and reagents are decontaminated after use by autoclaving. • Cleanliness and hygiene is maintained by regular cleaning and mopping the work table lab floor with appropriate disinfectant. • CCTV camera (which stores data up to 20 days) is available in the lab for monitoring and as a record if needed in future. • Suitable fire extinguisher is provided inside the lab.

4	Project Lab	<ul style="list-style-type: none"> • Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. • Contact details of the Lab in charge and technicians and emergency contact numbers are also displayed in the entrance of the lab. • First aid box and fire extinguishers are kept in each laboratory. • It is mandatory for Students to wear Lab Apron. • Gloves, head cover and face masks are available in the lab. • Mouth pipetting is prohibited hence micro-pipettes and pipette aids are provided for dispensing liquids. • Well trained technical supporting staff monitor the laboratory at all times. • Damaged equipment are identified and serviced at the earliest. • Periodical calibration of the lab equipment is regularly done. • Microbial cultures, culture vessels and reagents are decontaminated after use by autoclaving. • Cleanliness and hygiene is maintained by regular cleaning and mopping the work table lab floor with appropriate disinfectant. • CCTV camera (which stores data up to 20 days) is available in the lab for monitoring and as a record if needed in future. • Suitable fire extinguisher is provided inside the lab.
5	Animal Tissue Culture Lab	<ul style="list-style-type: none"> • Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. • Contact details of the Lab in charge and technicians and emergency contact numbers are also displayed in the entrance of the lab. • First aid box and fire extinguishers are kept in each laboratory. • It is mandatory for Students to wear Lab Apron. • Gloves, head cover and face masks are available in the lab. • Mouth pipetting is prohibited hence micro-pipettes and pipette aids are provided for dispensing liquids. • Well trained technical supporting staff monitor the laboratory at all times. • Damaged equipment are identified and serviced at the earliest. • Periodical calibration of the lab equipment is regularly done. • Microbial cultures, culture vessels and reagents are decontaminated after use by autoclaving. • Cleanliness and hygiene is maintained by regular cleaning and mopping the work table lab floor with appropriate disinfectant. • CCTV camera (which stores data up to 20 days) is available in the lab for monitoring and as a record if needed in future. • Suitable fire extinguisher is provided inside the lab.
6	Plant Tissue Culture Lab	<ul style="list-style-type: none"> • Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. • Contact details of the Lab in charge and technicians and emergency contact numbers are also displayed in the entrance of the lab. • First aid box and fire extinguishers are kept in each laboratory. • It is mandatory for Students to wear Lab Apron. • Gloves, head cover and face masks are available in the lab. • Mouth pipetting is prohibited hence micro-pipettes and pipette aids are provided for dispensing liquids. • Well trained technical supporting staff monitor the laboratory at all times. • Damaged equipment are identified and serviced at the earliest. • Periodical calibration of the lab equipment is regularly done. • Microbial cultures, culture vessels and reagents are decontaminated after use by autoclaving. • Cleanliness and hygiene is maintained by regular cleaning and mopping the work table lab floor with appropriate disinfectant. • CCTV camera (which stores data up to 20 days) is available in the lab for monitoring and as a record if needed in future. • Suitable fire extinguisher is provided inside the lab.
7	Downstream Processing & Biochemical Engg. Lab	<ul style="list-style-type: none"> • Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. • Contact details of the Lab in charge and technicians and emergency contact numbers are also displayed in the entrance of the lab. • First aid box and fire extinguishers are kept in each laboratory. • It is mandatory for Students to wear Lab Apron. • Gloves, head cover and face masks are available in the lab. • Mouth pipetting is prohibited hence micro-pipettes and pipette aids are provided for dispensing liquids. • Well trained technical supporting staff monitor the laboratory at all times. • Damaged equipment are identified and serviced at the earliest. • Periodical calibration of the lab equipment is regularly done. • Microbial cultures, culture vessels and reagents are decontaminated after use by autoclaving. • Cleanliness and hygiene is maintained by regular cleaning and mopping the work table lab floor with appropriate disinfectant. • CCTV camera (which stores data up to 20 days) is available in the lab for monitoring and as a record if needed in future. • Suitable fire extinguisher is provided inside the lab.
8	Bioprocess Lab I&II	<ul style="list-style-type: none"> • Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. • Contact details of the Lab in charge and technicians and emergency contact numbers are also displayed in the entrance of the lab. • First aid box and fire extinguishers are kept in each laboratory. • It is mandatory for Students to wear Lab Apron. • Gloves, head cover and face masks are available in the lab. • Mouth pipetting is prohibited hence micro-pipettes and pipette aids are provided for dispensing liquids. • Well trained technical supporting staff monitor the laboratory at all times. • Damaged equipment are identified and serviced at the earliest. • Periodical calibration of the lab equipment is regularly done. • Microbial cultures, culture vessels and reagents are decontaminated after use by autoclaving. • Cleanliness and hygiene is maintained by regular cleaning and mopping the work table lab floor with appropriate disinfectant. • CCTV camera (which stores data up to 20 days) is available in the lab for monitoring and as a record if needed in future. • Suitable fire extinguisher is provided inside the lab.
9	Biochemistry and Instrumental Methods of Analysis Lab	<ul style="list-style-type: none"> • Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students. • Contact details of the Lab in charge and technicians and emergency contact numbers are also displayed in the entrance of the lab. • First aid box and fire extinguishers are kept in each laboratory. • It is mandatory for Students to wear Lab Apron. • Gloves, head cover and face masks are available in the lab. • Mouth pipetting is prohibited hence micro-pipettes and pipette aids are provided for dispensing liquids. • Well trained technical supporting staff monitor the laboratory at all times. • Damaged equipment are identified and serviced at the earliest. • Periodical calibration of the lab equipment is regularly done. • Microbial cultures, culture vessels and reagents are decontaminated after use by autoclaving. • Cleanliness and hygiene is maintained by regular cleaning and mopping the work table lab floor with appropriate disinfectant. • CCTV camera (which stores data up to 20 days) is available in the lab for monitoring and as a record if needed in future. • Suitable fire extinguisher is provided inside the lab.

10	Animal House	<ul style="list-style-type: none">• Specific Safety Rules like Do's and Don'ts are displayed and instructed for all students.• Contact details of the Lab in charge and technicians and emergency contact numbers are also displayed in the entrance of the lab.• First aid box is available.• It is mandatory for Students to wear Lab Apron.• Gloves, head cover and face masks are available in the lab.• Well trained technical supporting staff monitor the laboratory at all times.• Damaged equipment are identified and serviced at the earliest.• Periodical calibration of the lab equipment is regularly done.• Animals, body parts and fluids are disposed as per CPCSEA regulations.• Cleanliness and hygiene is maintained by regular cleaning and mopping• Suitable fire extinguisher is provided inside the lab.
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D3. Project Laboratory/Research Laboratory

Table 7.5.1 Project Laboratory/Research Laboratory /Centre of Excellence

Sl. No	Name of the Laboratory
1.	Research lab
2.	Project lab
3.	Funded Research lab
4.	Centre of Excellence in Stem Cell Research
5.	Animal House
6.	Genomics & HPLC Facility

Table 7.5.2 Specialized Equipments in Research Laboratory

S. No	Specialized Equipment Name	Equipment Details
1	Centrifuge Eppendorff, Refrigerated (6730 Euro)	Eppendorf
2	Clinical Centrifuge	Remi
3	Colorimeter	Systronics
4	Electronic Balance Ay220 0.1mg	Shimadzu
5	Electronic Balance Bl220h 0.1mg	Shimadzu
6	Electrophoresis Power Supply (Big) Digital	Biotech-Yercaud
7	Electrophoresis Power Supply (Mini)	Biotech-Yercaud
8	Electrophoresis Unit Agarose Analytical	Biotech-Yercaud
9	Electrophoresis Unit Agarose Gel Baby	Biotech-Yercaud
10	Electrophoresis Vertical Slab gel (Mini) Dual	Biotech-Yercaud

11	Electrophoresis Vertical Slab gel (Regular)	Biotech-Yercaud
12	Gas Stove with Regulator	Butterfly-Friendly
13	Hot Air Oven	Genuine
14	Hot Plate	Sunbim
15	Incubator	Hasthas
16	Magnetic Stirrer	Remi
17	Micro Wave Oven	Samsung
18	Mixie	Preethi
19	Modular Work Table	Technico
20	Ph Meter	Systronics
21	Shaker with Incubator	Shalom
22	Spectrophotometer	Systronics
23	UV - Transilluminator	Biotech-Yercaud
24	Water Bath (Serological)	Sigma
25	Autoclave	Hasthas
26	Micropipette variable volume 0.2-20 μ l	Eppendorf
27	Micropipette variable volume 0.5-10 μ l	Eppendorf
28	Microtomeknife	Weswox
29	Refrigerator	LG
30	Laminar Airflow Chamber	Kleanzone
31	Microscope With Camera	Labomed
32	UV - Vis Spectrophotometer With Computer & Printer	Hitachi
33	Wall Table With Granite Top	Technico

34	BOD Incubator	Technico
35	Incubator	Geniune
36	Liquid Nitrogen Container	Inox
37	Microscope Monocular	Magnus
38	Shaker With Incubator	Shalom
39	Deep Freezer	Bluestar
40	Rotary Vacuum Evaporator	Equitron
41	Distillation Unit Single	Borosil All Glass
42	Serological water bath	Labtech
43	Ultrasonic cleaner	Labman





Table 7.5.3 Specialized Equipments in Project Laboratory

Sl. No	Specialized Equipment Name	Equipment Details
1.	Refrigerator Godrej 180 Litres	Godrej
2.	Water Bath (Serological)	Sigma
3.	Cilinal Centrifuge	Remi
4.	Electronic Balance BI220h 0.1mg	Shimadzu
5.	Micropipettes	Thermoscientific
6.	Hot Plate	Sigma
7.	Refrigerator Godrej 305 Litres	Godrej

8.	Magnetic Stirrer with Hot Plate Ceramic	Tarsons
9.	pH Meter	Sigma
10.	Double Distillation Unit	Riviera
11.	Hot Air Oven	Genuine
12.	Shaker with Incubator	Shalom
13.	Glass Bead Sterilizer	Steripot
14.	Micro Centrifuge 6 Place - Spinwin	Spinwin
15.	Water Bath With Stirrer	INLAB
16.	Laminar Air Flow Chamber	Cleanair
17.	Vertical Mini Gel System	Genei (106680)
18.	Mini Sub System: Small Model Gel	Genei (106470)
19.	Power Pack Ps 100 Mini Model	Genei (106854)
20.	Bench Meter Nephelometer	Hanna (H188703-02)
21.	Incubator	Geniune
22.	Magnetic Stirrer with Hot Plate	REMI
23.	Hot Air Ovens	Technico
24.	Heating Mantle	Sigma
25.	Microscope (Inverted)	EVOS XL Core
26.	ELISA Microplate Reader	Cyber Elisa R01
27.	Electronic Balance	Cyberlab US1000
28.	Laminar Air Flow Chamber	Technico
29.	Magnetic Stirrer with Hot Plate	REMI
30.	Shaker Mechanical	Technico
31.	Oil Free Vaccum Pump	Valve

32.	Anaerobic Culture Jar	Equitron (8160)
33.	Autoclave Vertical Cooker Type	Equitron(7407ST)
34.	Incubator Bacteriological	Technico
35.	Agarose Gel Electrophoresis Unit	Genei
36.	Laboratory Centrifuge	REMI
37.	Microscope Stereo	Labomed
38.	Magnetic Stirrer with Hot Plate	REMI
39.	Refrigerator Godrej 180 Litres	Godrej
40.	Hot Air Oven	Genuine





Table 7.5.4 Specialized Equipments in Cancer Nano Therapeutic Laboratory

Sl. No	Specialized Equipment Name	Equipment Details
1	PCR-Thermal cyclers	Bio-Rad
2	Refrigerator	LG
3	Microscope with imaging system	Leica
4	Vertical dual mini SDS-PAGE system	Genie
5	Weighing balance	Labmann
6	Spin win micro centrifuge	Tarsons
7	Micro wave oven	Panasonic
8	Serological water bath	Labtech
9	pH meter	Elico
10	Deep freezer	Bluestar
11	Vertical storage cabinet	The Scientific Unlimited
12	Vortex shaker with spare accessories	Abdos
13	Microcentrifuge (6000rpm)	Benchtop lab systems
14	Magnetic stirrer with hot plate	Remi

15	Blue light transilluminator (Safe imager 2.0)	Thermoscientific-Invitrogen
16	Gel rocker	Medox MX-1290-01
17	Microscope Inverted	EVOS XL core
18	ELISA Microplate Reader	Cyber ELISA

Table 7.5.5 Specialized Equipments in Algae Biomass Research Laboratory

Sl. No	Specialized Equipment Name	Equipment Details
1.	Deep freezer	Haier/DW 86L388A
2.	Spinwin micro centrifuge	Tarsons
3.	Thermal cycler	Applied Biosystems
4.	UV –transilluminator	Biotech Yercaud
5.	Air conditioner	Carrier 2.0 Duraedge Plus
6.	Algae growth chamber	Scigenics/ Orbitex LE-1L
7.	Microscope with documentation system	Accuscope / Ultra scope 9. V
8.	Vortex shaker	Tarsons
9.	Microwave Oven	Samsung GW 731KD-S GRL (20L)
10.	Digital balance	Kern
11.	Hot air oven	New Lab / 45x45x45 cm
12.	Hot plate	Sigma Scientific/ 8” SS top
13.	Laminar air flow chamber	Clean Air / CAH 0900
14.	Lux meter	Luxtron
15.	Magnetic stirrer	Remi
16.	Orbital shaker incubator	KOSI-1

17.	pH meter	Hanna
18.	Refrigerator	Samsung – RT29YBMSI/XTL
19.	Turbidity meter	Deep Vision
20.	Vacuum pump	Rocker-300
21.	Water bath	Sigma Scientific
22.	Micro Weighing Balance	ATY224



Table 7.5.6 Specialized Equipments in Centre of Excellence in Stem Cell Research

Sl. No	Name of the Equipment	Equipment Details
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1	3D Bio Printer	Make:Aflatek Model: Anga Pro
2	Phase contrast microscope	Make:Carl Zeiss Model: Axiovert 5
3	Bench top refrigerated centrifuge	Make: Eppendorf Model: 5430 r
4	CO2 incubator	Make: Thermo scientific Model: Forma Steri Cycle, capacity (184L)
5	Biosafety cabinet	Make: Esco Class II, 4ft/2m Model: AC2-4S8-NS (2010747)
6	Two door upright refrigerator	Make:Celfrost Model: FKG 600 DD
7	Deep (Cryogenic) freezer (-150 ⁰ C)	Make:PHCBI Model: MDF 1156
8	Western blot with mini transfer blot and power pack	Make: Biorad Model: Mini-PROTEAN Tetra cell
9	Water purification system	Make: Thermoscientific Model: Barnstead Smart 2 Pure
10	Fully automatic autoclave	Make: Biobase Model: BKQ-B1001
11	Digital weighing balance with internal calibration	Make: Sartorius Model: BSA-224SCW
12	Digital hot air oven	Make: Hasthas Model: HAS 3
13	Water bath Labtech rectangular	Make: Hasthas Model: ThermoStat

14	Deep freezer (-20 ⁰ C)	Make: Remi Model: RQV-300 Plus LED
15	pH Meter	Make: LABMAN Model: LMPH 10
16	Magnetic Stirrer	Make: Borosil Model: HLS 200
17	Western blot Apparatus	Make: Biorad Model: Mini PROTEAN Tetra Cell

Table 7.5.7 Specialized Equipments in Animal House

Sl. No	Specialized Equipment Name	Equipment Details
1.	Electronic Top Loading Balance	Shimadzu-EL3000
2.	Autoclave (Vertical Size 350*550 Mm)	KAUG-S3
3.	Blue Star Top Chest Freezer	CHF150C
4.	Footwear dispenser	Global stat clean
5.	Feed dispenser	Amazon
6.	Humidity analyser	Amazon



Table 7.5.8 Specialized Equipments in Genomics and HPLC Facility

Sl. No	Specialized Equipment Name	Equipment Details
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1.	Real Time PCR	Applied Biosystem
2.	Nanodrop	Applied Biosystem
3.	HPLC	Agilent Technologies



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
2022-23(CAYm2)	1380	69	62	65	91
2023-24(CAYm1)	1650	82	55	52	66
2024-25(CAY)	1650	82	49	56	61

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 2024-2025	Actual Expenses in 2024-2025 till	Budgeted in 2023-2024	Actual Expenses in 2023-2024 till	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till	Budgeted in 2021-2022	Actual Expenses in 2021-2022 till
Infrastructure Built-Up	15739250	15546677	14293000	46186347	22684500	48675115	11908000	73636311
Library	3225800	752858	2740000	371867.02	4035000	1857651	4625000	1517711
Laboratory equipment	193004686	69494419	195857557	94447319	160823754	99213351	148783639.4	86745796
Teaching and non-teaching staff salary	689880254	637062952	665563445	667552837.4	610809611	626635051	538001387	500411883
Outreach Programs	2740200	2200431	2626868	1515824	8316960	3169691	3040086	1445947
R&D	36367280	64991108	32637280	58448735	15882065	86405960	13632433	31184646
Training, Placement and Industry linkage	23135850	21646776	15751850	14253129	13582215	15502032	13514679	5362129
SDGs	12000000	10350519	7000000	6797754	15000000	14211361	3000000	2603928
Entrepreneurship	11023537	4122987	10950295	4046453	6662778	3987601	2851394	2807788
Others, specify	642932752	569296271	633907173	518871962	560333609	568593435	550185189	482604954
Total	1630049609	1395464998	1581327468	1412492227.42	1418130492	1468251248	1289541807.4	1188321093

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 2024-2025	Actual Expenses in 2024-2025 till	Budgeted in 2023-2024	Actual Expenses in 2023-2024 till	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till	Budgeted in 2021-2022	Actual Expenses in 2021-2022 till
Laboratory equipment	4300000	2046595	4250000	5005841	3105000	349849	575000	2365313

Software	2390926	1997912	2595910	2075003	2446423	1830403	2143098	1840256
SDGs	533490	460159	337883	328121	676056	640512	135411	117533
Support for faculty development	5000	11250	5000	18000	5000	163000	5000	62000
R & D	545000	864493	545000	362764	547188	448494	547188	214012
Industrial Training, Industry expert, Internship	445000	551766	445000	304230	432500	360595	432500	75950
Miscellaneous Expenses*	13635178.53	11240187.26	14023047.01	11716804.61	10176118.95	10676368.86	10021222.88	7620868.313
Total	21854594.53	17172362.26	22201840.01	19810763.61	17388285.95	14469221.86	13859419.88	12295932.313