

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: 11300	Date of Submission: 28-11-2025

PART A- Profile of the Institute

A1.Name of the Institute: KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY	
Year of Establishment : 1998	Location of the Institute: Virudhunagar
A2. Institute Address: KAMARAJ COLLEGE OF ENGINEERING AND TECHNOLOGY VIRUDHUNAGAR TAMILNADU 626001	
City:VIRUDHUNAGAR	State:Tamil Nadu
Pin Code:626001	Website:www.kamarajengg.edu.in
Email:mail@kamarajengg.edu.in	Phone No(with STD Code):04549-278171
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: Self-Supported Institute	
A5. Ownership Status: Self financing	

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

- No. of UG programs: **9**
- No. of PG programs: **2**

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

Sr.No.	Discipline	Level of program	Name of the program	Year of Start	Year of Closed	Name of The Department
1	Engineering & Technology	UG	Artificial Intelligence and Data Science	2020	--	Artificial Intelligence and Data Science
2	Engineering & Technology	UG	Biotechnology	2002	--	Biotechnology
3	Engineering & Technology	UG	Civil Engineering	2009	--	Civil Engineering
4	Engineering & Technology	PG	Communication and Networks	2011	--	Electronics and Communication Engineering
5	Engineering & Technology	UG	Computer Science and Engineering	1998	--	Computer Science and Engineering
6	Engineering & Technology	UG	Electrical and Electronics Engineering	2002	--	Electrical and Electronics Engineering
7	Engineering & Technology	UG	Electronics & Communication Engineering	1998	--	Electronics and Communication Engineering
8	Engineering & Technology	UG	Information Technology	2001	--	Information Technology
9	Engineering & Technology	UG	Mechanical Engineering	2005	--	Mechanical Engineering
10	Engineering & Technology	UG	Mechatronics Engineering	2014	--	Mechatronics Engineering
11	Engineering & Technology	PG	Power Systems Engineering	2012	--	Electrical and Electronics Engineering

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
Artificial Intelligence and Data Science	Yes	Artificial Intelligence and Data Science	UG
Mechanical Engineering	Yes	Mechanical 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
1	Biotechnology	UG	2002 / --	40	Yes	2019	60	2019	F.No.:SOUTHERN/1-4267058857/2019/EOA dt 29.04.2019	Granted for 3 years period

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.R.Shyam Kumar
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	60	60	60	60	60
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	55	47	53	41	47	48	36
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	0	0	0	0	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.	55	47	53	41	47	48	36

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	55	0	91.67
2024-25 (CAYm1)	60	47	0	78.33
2023-24 (CAYm2)	60	53	0	88.33

Average [(ER1 + ER2 + ER3) / 3] = 86.11≡ 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	(2021-22) LYG	(2020-21) LYGm1	(2019-20) LYGm2
A*= (No. of students admitted in the 1st year of that batch and those actually admitted in the 2nd year via lateral entry, plus the number of students admitted through multiple entry (if any) and separate division if applicable, minus the number of students who exited through multiple entry (if any).	60.00	60.00	60.00
B=No. of students who graduated from the program in the stipulated course duration	46.00	47.00	36.00
Success Rate (SR)= (B/A) * 100	76.67	78.33	60.00

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 71.67

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

Table No.B6.1: Academic Performance of the First-Year Students of the Program.			
Academic Performance	CAYm1(2024-25)	CAYm2(2023-24)	CAYm3 (2022-23)
Mean of CGPA or mean percentage of all successful students(X)	7.88	8.29	7.99
Y=Total no. of successful students	47.00	53.00	41.00
Z=Total no. of students appeared in the examination	47.00	53.00	41.00
API [X*(Y/Z)]	7.88	8.29	7.99

Average API[(AP1+AP2+AP3)/3] : 8.05

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)	8.01	7.95	8.16
Y=Total no. of successful students	53.00	41.00	47.00
Z=Total no. of students appeared in the examination	53.00	41.00	47.00
API [X * (Y/Z)]	8.01	7.95	8.16

Average API [(AP1 + AP2 + AP3)/3] : 8.04

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

Table No.B8.1: Academic Performance of the Third Year Students of the Program			
Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
X=(Mean of 3rd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 3rd year/10)	7.79	8.24	8.67
Y=Total no. of successful students	41.00	47.00	48.00
Z=Total no. of students appeared in the examination	41.00	47.00	48.00
API [X*(Y/Z)]:	7.79	8.24	8.67

Average API [(AP1 + AP2 + AP3)/3] : 8.23

B9. Placement, Higher Studies, and Entrepreneurship

Table No.B9.1: Placement, higher studies, and entrepreneurship details.			
Item	LYG (2021-22)	LYGm1(2020-21)	LYGm2(2019-20)
FS*=Total no. of final year students	60.00	60.00	60.00
X=No. of students placed	29.00	34.00	22.00
Y=No. of students admitted to higher studies	16.00	10.00	7.00
Z= No. of students taking up entrepreneurship	0.00	0.00	0.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	75.00	73.33	48.33

Average Placement Index = (P_1 + P_2 + P_3)/3: 65.55 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)
1	Dr.R.Shyam Kumar	XXXXXXXX64E	Ph.D	Bharathidasan University	Microbiology	02/09/2013	12.2	Professor	Professor	02/09/2013	Regular	Yes
2	Dr.R.Baskaran	XXXXXXXX48J	Ph.D	Anna University	Polymer Composites	02/01/2003	22.11	Lecturer	Associate Professor	01/04/2016	Regular	Yes
3	Dr.K.Geetha	XXXXXXXX96L	Ph.D	Madurai Kamaraj University	Genetics	01/09/2003	22.3	Lecturer	Associate Professor	31/01/2012	Regular	Yes
4	Dr.S.Karthikumar	XXXXXXXX86G	Ph.D	Anna University	Biotechnology	01/06/2007	18.6	Lecturer	Associate Professor	11/04/2022	Regular	Yes
5	Dr.D.Pradiba	XXXXXXXX67H	Ph.D	Anna University	Biotechnology	25/09/2019	6.2	Assistant Professor	Assistant Professor		Regular	Yes
6	Er.R.Amuthalakshmi	XXXXXXXX03C	M.Tech	Anna University	Biotechnology	04/08/2017	8.3	Assistant Professor	Assistant Professor		Regular	Yes

7	Er.Karl Joseph Samuel	XXXXXXXX86E	M.Tech	Anna University	Biotechnology	23/05/2022	3.6	Assistant Professor	Assistant Professor		Regular	Yes
8	Er.A.Ganga	XXXXXXXX99J	M.Tech	Anna University	Biotechnology	01/06/2022	3.5	Assistant Professor	Assistant Professor		Regular	Yes
9	Er.R.Raja Rajesweri	XXXXXXXX13L	M.Tech	SASTRA University	Medical Nanotechnology	16/12/2024	0.11	Assistant Professor	Assistant Professor		Regular	Yes
10	Dr.A.Ronaldo Anuf	XXXXXXXX00P	Ph.D	Anna University	Biotechnology	02/12/2013	10.6	Assistant Professor	Assistant Professor		Regular	No
11	Er.K.Chitra Devi	XXXXXXXX01G	M.Tech	Karunya University	Food Processing	01/06/2022	2	Assistant Professor	Assistant Professor		Regular	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 Department0
 Table No.C2.1: Student-faculty ratio.

Description	CAY(2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)
UG1.B	60	60	60
UG1.C	60	60	60
UG1.D	60	60	60
UG1: Biotechnology	180	180	180
DS=Total no. of students in all UG and PG programs in the Department	180	180	180
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= 180	S2= 180	S3= 180
DF=Total no. of faculty members in the Department	9	8	10
AF= Total no. of faculty members in the allied Departments	0	0	0
F=Total no. of faculty members in the Department (DF) and allied Departments (AF)	F1= 9	F2= 8	F3= 10
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= 20.00	SFR2= 22.50	SFR3= 18.00
Average SFR for 3 years	SFR= 20.17		

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)	5	4	9.00	18.33
2024-25(CAYm1)	5	3	9.00	17.22
2023-24(CAYm2)	6	4	9.00	21.11

C4. Faculty Cadre Proportion

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

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

Year	Professors		Associate Professors		Assistant Professors	
	Required RF1	Available AF1	Required RF2	Available AF1	Required RF3	Available AF3
2025-26	1.00	1.00	2.00	3.00	6.00	5.00
2024-25	1.00	1.00	2.00	3.00	6.00	4.00
2023-24	1.00	1.00	2.00	3.00	6.00	6.00
Average	RF1=1.00	AF1=1.00	RF2=2.00	AF2=3.00	RF2=6.00	AF2=5.00

C5. Visiting/Adjunct Faculty/Professor of Practice

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

(CAYm1)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr.J.Abraham Willingdon	Director and Proprietor	Sea2Farm, Ramanathapuram, Tamil Nadu	ALGAL TECHNOLOGY AND APPLICATIONS	50.00

(CAYm2)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr.J.Abraham Willingdon	Director and Proprietor	Sea2Farm, Ramanathapuram, Tamil Nadu	ALGAL TECHNOLOGY AND APPLICATION	50.00

(CAYm3)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	-	-	-	-	0.00

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	3	7	7
2	No. of peer reviewed conference papers published	15	2	5
3	No. of books/book chapters published	2	1	0

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. S. Karthikumar	Dr R Arthanareeswaran (Mentor)	Biotechnology	Artificial Intelligence Based Non-Destructive Real Time Monitoring of the Biofouling Development in Membrane Filters	SERB TARE	3 years	18.30
						Amount received (Rs.):18.30

(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. S. Karthikumar		Biotechnology	Design and development of AI Based smart water food quality analyzer as a home appliance to monitor the selected quality parameters contaminants and adulterants	MSME Innovation scheme – sanctioned order dated 13.07.2025	1 year	11.47
						Amount received (Rs.):11.47

(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
-	-	-	-	-	-	0.00
						Amount received (Rs.):0.00

Total Amount (Lacs) Received for the Past 3 Years: 29.77

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
-	-	-	-	-	-	0.00
						Amount received (Rs.):0.00

(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
-	-	-	-	-	-	0.00
						Amount received (Rs.):0.00

(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
-	-	-	-	-	-	0.00
						Amount received (Rs.):0.00

Total amount (Lacs) received for the past 3 years: 0.00

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
K. Geetha	Automated infrared thermal imaging (IRTI)	12months	5.00	5.00	Won prize in Hackathon
K Geetha	cellular lightweight concrete	12months	5.00	5.00	NA
Er. Karl Joseph Samuel	pilot scale raceway system	12months	5.00	5.00	Prototype
			Amount received (Rs.): 15.00		

(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
R AmuthaLakshmi	symbiotic cyanobacterial polysaccharide production	1 year	0.30	0.30	NA
			Amount received (Rs.): 0.30		

(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 R. Baskaran	Polymer nanocomposite for insulation winding	1 year	0.25	0.25	paper in conference
Dr S Karthikumar	algae based microbial fuel cells	1 year	0.25	0.25	Patent
			Amount received (Rs.): 0.50		

Total amount (Lacs) received for the past 3 years : 15.80

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	Biochemistry Laboratory	30	UV-Vis Spectrophotometer (Shimadzu), Hot Air Oven, Light Microscopes	8 hours odd se	Ms.M.Chitra	Lab Technician	M.Sc., M.Phil
2	Cell Biology Laboratory	30	Refrigerated centrifuge, Temperature controlled Incubator shaker, Temperature controlled incubator bath, Incubator Shaker	8 hours odd se	Mr.G. Jeyakuma	Instructor	B.Sc.
3	Immunology Laboratory	30	Refrigerated centrifuge, Temperature controlled Incubator shaker, Temperature controlled incubator bath, Incubator Shaker	8 hours even s	Mr.G. Jeyakuma	Instructor	B.Sc.
4	Chemical Engineering lab for Biotechnologist	30	Flow through Pipes, Centrifugal Pump, Orifice meter, Venturimeter, Rotameter, Heat exchanger, Distillation Column	8 hours even s	Mr.G. Jeyakuma	Instructor	B.Sc.
5	Microbiology Laboratory	30	Autoclave, Hot Air Oven, Incubators, Light Microscopes, Incubator Shaker, Centrifuge, Laminar Flow Chamber	8 hours odd se	Ms. M. Chitra	Lab Technician	M.Sc., M.Phil.
6	Bioprocess Laboratory	30	Autoclave, Hot Air Oven, Incubators, Light Microscopes, Incubator Shaker, Centrifuge, Laminar Flow Chamber	8 hours even s	Ms. M. Chitra	Lab Technician	M.Sc., M.Phil.
7	Enzyme Engineering Laboratory	30	Autocalve, Hot Air Oven, Incubators, Light Microscopes, Incubator Shaker, Centrifuge, Laminar Flow Chamber	8 hours odd se	Ms. R.Sowmiyav	Lab Technician	M.Sc.
8	Downstream Processing Laboratory	30	Autocalve, Hot Air Oven, Incubators, Light Microscopes, Incubator Shaker, Centrifuge, Laminar Flow Chamber	8 hours even s	Ms. R.Sowmiyav	Lab Technician	M.Sc.
9	Molecular Biology and Genetic Engineering Laboratory	30	Refrigerated Centrifuge, Spectrophotometer, Temperature controlled incubator shaker	8 hours even s	Ms. M. Chitra	Lab Technician	M.Sc., M.Phil.
10	Computational Biology Laboratory	30	Hardware Requirements Personal Computers (Intel Core i5, 500 GB, 4 GB RAM), Software : Excel, Power	-8 hours odd se	Mr.G. Jeyakuma	Instructor	B.Sc.

D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures
1	Biochemistry Laboratory	.1. Students are provided with a laboratory coat 2. Laboratory specific instructions are mentioned in each laboratory manuals 3. The whole laboratory is air-conditioned to provide a dust free environment 4. Laminar air flow units are provided with flame igniters to prevent any fire accidents. 5. Separate containers are kept for discarding used biohazard material, broken glassware and other un-contaminated things. 6. Fire extinguisher 7. First-aid box 8. Rubber heavy duty hand gloves 9. Wear face masks 10. Wear hair masks 11. Biosafety cabinets (BSCs): Use for handling infectious microorganisms, recombinant DNA, or human-derived materials. 12. Aseptic techniques: Practice sterile handling to avoid contamination and spread of microorganisms. 13. Proper disposal: Decontaminate biological waste using autoclaves before disposal. 14. Sharps safety: Use needles, scalpels, and glassware carefully; dispose of sharps in puncture-proof containers. 15. Chemical labeling: All reagents and solutions must be clearly labeled with name, concentration, hazard symbols, and date. 16. MSDS/SDS access: Keep Material Safety Data Sheets available for all chemicals. 17. Equipment training: Operate centrifuges, autoclaves, PCR machines, fermenters, etc., only after proper instruction.
2	Molecular Biology Laboratory and Genetic Engineering Laboratory	1. Students are provided with a laboratory coat 2. Laboratory specific instructions are mentioned in each laboratory manuals 3. The whole laboratory is air-conditioned to provide a dust free environment 4. Laminar air flow units are provided with flame igniters to prevent any fire accidents. 5. Separate containers are kept for discarding used biohazard material, broken glassware and other un-contaminated things. 6. Fire extinguisher 7. First-aid box 8. Rubber heavy duty hand gloves 9. Wear face masks 10. Wear hair masks 11. Biosafety cabinets (BSCs): Use for handling infectious microorganisms, recombinant DNA, or human-derived materials. 12. Aseptic techniques: Practice sterile handling to avoid contamination and spread of microorganisms. 13. Proper disposal: Decontaminate biological waste using autoclaves before disposal. 14. Sharps safety: Use needles, scalpels, and glassware carefully; dispose of sharps in puncture-proof containers. 15. Chemical labeling: All reagents and solutions must be clearly labeled with name, concentration, hazard symbols, and date. 16. MSDS/SDS access: Keep Material Safety Data Sheets available for all chemicals. 17. Equipment training: Operate centrifuges, autoclaves, PCR machines, fermenters, etc., only after proper instruction.

3	Cell Biology laboratory	1. Students are provided with a laboratory coat 2. Laboratory specific instructions are mentioned in each laboratory manuals 3. The whole laboratory is air-conditioned to provide a dust free environment 4. Laminar air flow units are provided with flame igniters to prevent any fire accidents. 5. Separate containers are kept for discarding used biohazard material, broken glassware and other un-contaminated things. 6. Fire extinguisher 7. First-aid box 8. Rubber heavy duty hand gloves 9. Wear face masks 10. Wear hair masks 11. Biosafety cabinets (BSCs): Use for handling infectious microorganisms, recombinant DNA, or human-derived materials. 12. Aseptic techniques: Practice sterile handling to avoid contamination and spread of microorganisms. 13. Proper disposal: Decontaminate biological waste using autoclaves before disposal. 14. Sharps safety: Use needles, scalpels, and glassware carefully; dispose of sharps in puncture-proof containers. 15. Chemical labeling: All reagents and solutions must be clearly labeled with name, concentration, hazard symbols, and date. 16. MSDS/SDS access: Keep Material Safety Data Sheets available for all chemicals. 17. Equipment training: Operate centrifuges, autoclaves, PCR machines, fermenters, etc., only after proper instruction.
4	Downstream Processing laboratory	1. Students are provided with a laboratory coat 2. Laboratory specific instructions are mentioned in each laboratory manuals 3. The whole laboratory is air-conditioned to provide a dust free environment 4. Laminar air flow units are provided with flame igniters to prevent any fire accidents. 5. Separate containers are kept for discarding used biohazard material, broken glassware and other un-contaminated things. 6. Fire extinguisher 7. First-aid box 8. Rubber heavy duty hand gloves 9. Wear face masks 10. Wear hair masks 11. Biosafety cabinets (BSCs): Use for handling infectious microorganisms, recombinant DNA, or human-derived materials. 12. Aseptic techniques: Practice sterile handling to avoid contamination and spread of microorganisms. 13. Proper disposal: Decontaminate biological waste using autoclaves before disposal. 14. Sharps safety: Use needles, scalpels, and glassware carefully; dispose of sharps in puncture-proof containers. 15. Chemical labeling: All reagents and solutions must be clearly labeled with name, concentration, hazard symbols, and date. 16. MSDS/SDS access: Keep Material Safety Data Sheets available for all chemicals. 17. Equipment training: Operate centrifuges, autoclaves, PCR machines, fermenters, etc., only after proper instruction.
5	Immunology Laboratory	1. Students are provided with a laboratory coat 2. Laboratory specific instructions are mentioned in each laboratory manuals 3. The whole laboratory is air-conditioned to provide a dust free environment 4. Laminar air flow units are provided with flame igniters to prevent any fire accidents. 5. Separate containers are kept for discarding used biohazard material, broken glassware and other un-contaminated things. 6. Fire extinguisher 7. First-aid box 8. Rubber heavy duty hand gloves 9. Wear face masks 10. Wear hair masks 11. Biosafety cabinets (BSCs): Use for handling infectious microorganisms, recombinant DNA, or human-derived materials. 12. Aseptic techniques: Practice sterile handling to avoid contamination and spread of microorganisms. 13. Proper disposal: Decontaminate biological waste using autoclaves before disposal. 14. Sharps safety: Use needles, scalpels, and glassware carefully; dispose of sharps in puncture-proof containers. 15. Chemical labeling: All reagents and solutions must be clearly labeled with name, concentration, hazard symbols, and date. 16. MSDS/SDS access: Keep Material Safety Data Sheets available for all chemicals. 17. Equipment training: Operate centrifuges, autoclaves, PCR machines, fermenters, etc., only after proper instruction.
6	Bioprocess Laboratory	1. Students are provided with a laboratory coat 2. Laboratory specific instructions are mentioned in each laboratory manuals 3. The whole laboratory is air-conditioned to provide a dust free environment 4. Laminar air flow units are provided with flame igniters to prevent any fire accidents. 5. Separate containers are kept for discarding used biohazard material, broken glassware and other un-contaminated things. 6. Fire extinguisher 7. First-aid box 8. Rubber heavy duty hand gloves 9. Wear face masks 10. Wear hair masks 11. Biosafety cabinets (BSCs): Use for handling infectious microorganisms, recombinant DNA, or human-derived materials. 12. Aseptic techniques: Practice sterile handling to avoid contamination and spread of microorganisms. 13. Proper disposal: Decontaminate biological waste using autoclaves before disposal. 14. Sharps safety: Use needles, scalpels, and glassware carefully; dispose of sharps in puncture-proof containers. 15. Chemical labeling: All reagents and solutions must be clearly labeled with name, concentration, hazard symbols, and date. 16. MSDS/SDS access: Keep Material Safety Data Sheets available for all chemicals. 17. Equipment training: Operate centrifuges, autoclaves, PCR machines, fermenters, etc., only after proper instruction.
7	Microbiology Laboratory	1. Students are provided with a laboratory coat 2. Laboratory specific instructions are mentioned in each laboratory manuals 3. The whole laboratory is air-conditioned to provide a dust free environment 4. Laminar air flow units are provided with flame igniters to prevent any fire accidents. 5. Separate containers are kept for discarding used biohazard material, broken glassware and other un-contaminated things. 6. Fire extinguisher 7. First-aid box 8. Rubber heavy duty hand gloves 9. Wear face masks 10. Wear hair masks 11. Biosafety cabinets (BSCs): Use for handling infectious microorganisms, recombinant DNA, or human-derived materials. 12. Aseptic techniques: Practice sterile handling to avoid contamination and spread of microorganisms. 13. Proper disposal: Decontaminate biological waste using autoclaves before disposal. 14. Sharps safety: Use needles, scalpels, and glassware carefully; dispose of sharps in puncture-proof containers. 15. Chemical labeling: All reagents and solutions must be clearly labeled with name, concentration, hazard symbols, and date. 16. MSDS/SDS access: Keep Material Safety Data Sheets available for all chemicals. 17. Equipment training: Operate centrifuges, autoclaves, PCR machines, fermenters, etc., only after proper instruction.

8	Enzyme Engineering Laboratory	1. Students are provided with a laboratory coat 2. Laboratory specific instructions are mentioned in each laboratory manuals 3. The whole laboratory is air-conditioned to provide a dust free environment 4. Laminar air flow units are provided with flame igniters to prevent any fire accidents. 5. Separate containers are kept for discarding used biohazard material, broken glassware and other un-contaminated things. 6. Fire extinguisher 7. First-aid box 8. Rubber heavy duty hand gloves 9. Wear face masks 10. Wear hair masks 11. Biosafety cabinets (BSCs): Use for handling infectious microorganisms, recombinant DNA, or human-derived materials. 12. Aseptic techniques: Practice sterile handling to avoid contamination and spread of microorganisms. 13. Proper disposal: Decontaminate biological waste using autoclaves before disposal. 14. Sharps safety: Use needles, scalpels, and glassware carefully; dispose of sharps in puncture-proof containers. 15. Chemical labeling: All reagents and solutions must be clearly labeled with name, concentration, hazard symbols, and date. 16. MSDS/SDS access: Keep Material Safety Data Sheets available for all chemicals. 17. Equipment training: Operate centrifuges, autoclaves, PCR machines, fermenters, etc., only after proper instruction.
9	Computational Biology Laboratory	Electrical earthing ☐ It is a crucial safety mechanism used to protect the equipment. It also helps to prevent electric shock, especially when there is an insulation failure or leakage current. ☐ Earthing also supports the proper operation of protective devices like fuses, MCBs, and RCCBs. 2.Fire extinguishers ☐ Used to quickly suppress and control small fires, preventing them from spreading and causing major damage. ☐ Helps ensure personal safety by allowing immediate action during fire emergencies before professional help arrives. 3.Micro Circuit Breakers ☐ Automatically disconnect the electrical circuit when overload or short circuit conditions occur, protecting equipment from damage. 4.Concealed wiring ☐ Improves safety by protecting electrical wires inside walls, reducing the risk of electric shock, fire, or mechanical damage. 5.Stabilized electrical supply through UPS facility ☐ Provides uninterrupted power supply during power failures, ensuring that sensitive laboratory equipment continues to operate without shutdown. 6.Centralized Anti-virus software installed in the server serves all PCs in intranet ☐ Provides unified protection by automatically monitoring, scanning, and updating all PCs on the intranet from a single server, ensuring consistent security across the network. ☐ Prevents malware spreading within the intranet by detecting threats early and isolating infected systems before they affect other connected computers. 7. USB port disabled to avoid using pen drives ☐ Prevents unauthorized data transfer, ensuring that sensitive or confidential laboratory information cannot be copied or removed without permission. 8. CD drives not accessible ☐ Prevents unauthorized installation or copying of software/data, ensuring better security and control over the system's content.
10	Chemical Engineering lab for Biotechnologist	1. Wear lab coat, shoes, and safety goggles. 2. Do not operate any equipment without instructor supervision. 3. Check for leakages in pipelines, valves, and joints before starting. 4. Open and close valves slowly to avoid sudden pressure surges. 5. Do not exceed the maximum pressure limits of pumps or pipelines. 6. Ensure manometers are filled correctly and avoid spillage of manometric fluids. 7. Maintain a safe distance from running pumps and rotating equipment. 8. Keep hands and objects away from flow lines and outlets. 9. Ensure motors and pumps are properly earthed. 10. Do not operate electrical equipment with wet hands. 11. Turn off the main power supply before adjusting or cleaning apparatus. 12. After completing the experiment, switch off pumps and close all valves. 13. Drain excess water and clean the apparatus.

D3. Project Laboratory/Research Laboratory

S. No	Name of the Facility	Details	Purpose for creating facility
1	High Pressure Liquid Chromatography	Received on DBT grant. For promoting research activities.	For Research, Project Work and Regular Laboratories
2	UV-Vis Spectrophotometer (Eppendorf)	Received on BRNS grant. For promoting research activities	For Research, Project Work and Regular Laboratories
3	BOD Incubator	For promoting research activities.	For Research, Project Work and Regular Laboratories
4	Photo bioreactor	Received on MODROBS, AICTE grant. For promoting research activities	For Research, Project Work and Regular Laboratories
5	Foam fractionation Column	Received on RPS,AICTE grant. For promoting research activities	For Research, Project Work and Regular Laboratories

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 $((NS1*0.8) + (NS2*0.2)) / (\text{No. of required faculty (RF4)})$; Percentage= $((NS1*0.8) + (NS2*0.2)) / RF$
2023-24(CAYm2)	660	33	26	12	70
2024-25(CAYm1)	720	36	27	13	67
2025-26(CAY)	720	36	27	12	67

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	23426000	16530425	17060000	13880468	12825000	10253590	8300000	8247809
Library	430000	110182	580000	274424	450000	463553	325000	165987
Laboratory equipment	19822000	11971004	18297000	22135562	14365000	5753703	5263000	3583877
Teaching and non-teaching staff salary	172330000	99617568	126089000	132455285	116000000	114738143	119580000	117551275
Outreach Programs	7700000	5387291	9628000	9554745	4000000	3939209	3100000	3198596
R&D	600000	448347	5600000	1073557	2000000	1358483	1000000	451052
Training, Placement and Industry linkage	11640000	6276467	11733000	9872295	9346000	5786240	8858000	8516392
SDGs	4050000	1742327	3750000	3645374	1250000	1256004	1260000	1029448

Entrepreneurship	100000	780	200000	187387	500000	164030	150000	140488
Others, specify	64455000	29399216	48711480	52546223	39106000	41070536	40850000	32569912
Total	304553000	171483607	241648480	245625320	199842000	184783491	188686000	175454836

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	2000000	1044123	3637000	3090043	1300000	1166663	1234000	1187164
Software	10000	8480	50000	13486	8000	6168	10000	8440
SDGs	500000	153172	0	0	0	0	0	0
Support for faculty development	100000	46836	16000	23694	16000	13028	10000	6765
R & D	500000	276305	150000	102243	160000	129379	50000	41834
Industrial Training, Industry expert,	1500000	551777	1000000	940219	690000	551070	850000	810566
Miscellaneous expenses	25000000	11322608	20800000	18043206	17826000	15036706	17000000	14129583
Total	29610000	13403301	25653000	22212891	20000000	16903014	19154000	16184352