

NATIONAL BOARD OF ACCREDITATION

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

Program Name : Chemical Engineering	Discipline : Engineering & Technology
Level : Under Graduate	Tier : 2
Application No : 11506	Date of Submission : 29-01-2026

PART A- Profile of the Institute

A1.Name of the Institute : GOVERNMENT ENGINEERING COLLEGE, WEST HILL, KOZHIKODE	
Year of Establishment : 1999	Location of the Institute: Westhill Kozhikode
A2. Institute Address :THE PRINCIPAL, GOVERNMENT ENGINEERING COLLEGE WEST HILL P O, KOZHIKODE, PIN 673005 KERALA	
City:Kozhikode	State:Kerala
Pin Code:673005	Website:www.geckkd.ac.in
Email:office@geckkd.ac.in	Phone No(with STD Code):0495-2383210
A3. Name and Address of the Affiliating University (if any):	
Name of the University : APJ Abdul Kalam Technological University	City: Thiruvananthapuram
State : Kerala	Pin Code: 695016
A4. Type of the Institution : Government Institute	
A5. Ownership Status : State Government	

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

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

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

Sr.No.	Discipline	Level of program	Name of the program	Year of Start	Year of Closed	Name of The Department
1	Engineering & Technology	UG	Applied Electronics & Instrumentation Engineering	1999	--	Applied Electronics and Instrumentation Engineering
2	Engineering & Technology	UG	Chemical Engineering	1999	--	Chemical Engineering
3	Engineering & Technology	UG	Civil Engineering	2006	--	Civil Engineering
4	Engineering & Technology	PG	Computer Aided Process Design	2011	--	Chemical Engineering
5	Engineering & Technology	UG	Computer Science and Design	2022	--	Computer Science and Engineering
6	Engineering & Technology	UG	Electronics & Communication Engineering	2012	--	Applied Electronics and Instrumentation Engineering
7	Engineering & Technology	PG	Energy System Analysis and Design	2012	--	Mechanical Engineering
8	Engineering & Technology	UG	Mechanical Engineering	1999	--	Mechanical Engineering
9	Engineering & Technology	PG	Signal Processing	2012	--	Applied Electronics and Instrumentation Engineering
10	Engineering & Technology	PG	Structural Engineering	2022	--	Civil 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
Applied Electronics and Instrumentation Engineering	No	Applied Electronics & Instrumentation Engineering	UG
Civil Engineering	No	Civil Engineering	UG
Chemical Engineering	No	Chemical Engineering	UG
Mechanical Engineering	No	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	FROM	TO	NO. OF TIMES PROGRAM ACCREDITED
1	Chemical Engineering	UG	1999 / --	60	No	NA	60	1999	F.No.South-West/1-44642884184/2025/EOA, dated 20-Mar-2025	Granted accreditation for 3 years for the period (specify period)	2023	2026	3

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. Sajeena Beevi B
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	60	60	60	57	56	60	58
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	7	9	17	15	10	7
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	8	7	6	0	0	4	0
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	68	74	75	74	71	74	65

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	60	8	113.33
2024-25 (CAYm1)	60	60	7	111.67
2023-24 (CAYm2)	60	60	6	110.00

Average $[(ER1 + ER2 + ER3) / 3] = 111.67 \approx 100$

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).	75.00	71.00	67.00
B=No. of students who graduated from the program in the stipulated course duration	62.00	61.00	47.00
Success Rate (SR)= (B/A) * 100	82.67	85.92	70.15

Average SR of three batches $((SR_1 + SR_2 + SR_3)/3)$: 79.58

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

Table No.B6.1: Academic Performance of the First-Year Students of the Program.

Academic Performance	CAYm1(2024-25)	CAYm2(2023-24)	CAYm3 (2022-23)
X=(Mean of 1st year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 1st year/10)	7.76	7.51	7.41
Y=Total no. of successful students	53.00	47.00	45.00
Z=Total no. of students appeared in the examination	67.00	66.00	57.00
API $[X*(Y/Z)]$	6.14	5.35	5.85

Average API $[(AP1+AP2+AP3)/3]$: 5.78

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)
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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)	7.66	7.09	7.02
Y=Total no. of successful students	41.00	35.00	65.00
Z=Total no. of students appeared in the examination	56.00	65.00	68.00
API [X * (Y/Z)]	5.61	3.82	6.71

Average API [(AP1 + AP2 + AP3)/3] : 5.38

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)	7.27	7.14	6.86
Y=Total no. of successful students	25.00	62.00	63.00
Z=Total no. of students appeared in the examination	35.00	65.00	65.00
API [X*(Y/Z)]:	5.19	6.81	6.65

Average API [(AP1 + AP2 + AP3)/3] : 6.22

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	75.00	70.00	67.00
X=No. of students placed	40.00	34.00	23.00
Y=No. of students admitted to higher studies	9.00	22.00	14.00
Z= No. of students taking up entrepreneurship	0.00	0.00	0.00
Placement Index(P) = ((X + Y + Z)/FS) * 100):	65.33	80.00	55.22

Average Placement Index = (P_1 + P_2 + P_3)/3: 66.85 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?
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1	Dr. Gigi Sebastian	XXXXXXXX14P	Ph.D	IIT, MADRAS	Chemical Engineering-Process Control	13/06/2013	11.11	Professor	Professor	13/06/2013	Regular	No	31/05/2025	No
2	Dr. Anjana R	XXXXXXXX34Q	Ph.D	COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY	Polymer Technology	22/06/2022	3.2	Professor	Professor	22/06/2022	Regular	No	16/09/2025	No
3	Dr. Manju M S	XXXXXXXX50N	Ph.D	NIIST CSIR (UNIVERSITY OF KERALA)	Chemical Engineering	22/06/2022	3.2	Professor	Professor	22/06/2022	Regular	No	16/09/2025	No
4	Mr.Praveen K R	XXXXXXXX52F	M.Tech	APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY	Health Safety and Environment Management	10/08/2023	0.10	Assistant Professor	Assistant Professor		Contractual Fulltime	No	29/06/2024	No
5	Dr.Beula C	XXXXXXXX18Q	Ph.D	IIT, MADRAS	Chemical Engineering	14/06/2004	21.7	Assistant Professor	Professor	15/06/2020	Regular	Yes		No
6	Mrs.Jeena Prakash P	XXXXXXXX12N	M.Tech	APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY	Computer Aided Process Design	10/01/2022	3	Assistant Professor	Assistant Professor		Contractual Fulltime	No	29/01/2025	No
7	Dr.Binu T V	XXXXXXXX68L	Ph.D	IIT, MADRAS	Chemical Engineering	28/06/2004	21.2	Assistant Professor	Professor	06/09/2019	Regular	No	16/09/2025	No
8	Dr.Sindhu N	XXXXXXXX46L	Ph.D	NIT CALICUT	Chemical Engineering	09/06/2004	21.7	Assistant Professor	Associate Professor	09/06/2018	Regular	Yes		No
9	Prof. Suma K	XXXXXXXX04J	M.Tech	CALICUT UNIVERSITY	Chemical Engineering-Process Control	12/09/2005	20.4	Assistant Professor	Associate Professor	10/12/2018	Regular	Yes		No
10	Dr. Suji S K	XXXXXXXX53A	Ph.D	KERALA UNIVERSITY	Chemical Engineering	02/12/2014	11.1	Assistant Professor	Assistant Professor		Regular	Yes		
11	Prof. Adil Muhammed	XXXXXXXX61B	M.Tech	IIT KHARAGPUR	Chemical Engineering	08/07/2025	0.6	Assistant Professor	Assistant Professor		Regular	Yes		
12	Prof. Aparna A M	XXXXXXXX84R	M.Tech	NIT Rourkela	Chemical Engineering	08/07/2025	0.6	Assistant Professor	Assistant Professor		Regular	Yes		
13	Prof. Dhaneesh K P	XXXXXXXX25G	M.Tech	CALICUT UNIVERSITY	Computer Aided Process Design	22/11/2021	3.8	Assistant Professor	Assistant Professor		Regular	No	07/08/2025	
14	Dr. Dhanya A	XXXXXXXX52R	Ph.D	NIT CALICUT	Chemical Engineering	04/07/2022	3.6	Assistant Professor	Assistant Professor		Contractual Fulltime	Yes		
15	Dr. Minju N	XXXXXXXX00F	Ph.D	AcSIR	Chemical Engineering	09/12/2022	3.1	Assistant Professor	Assistant Professor		Contractual Fulltime	Yes		No
16	Susheeba O K	XXXXXXXX68C	M.Tech	CALICUT UNIVERSITY	Computer Aided Process Design	07/03/2019	6.3	Assistant Professor	Assistant Professor		Contractual Fulltime	No	30/06/2025	No

17	Jose P P	XXXXXXXX33Q	M.Tech	CALICUT UNIVERSITY	Chemical Engineering	10/08/2023	1.10	Assistant Professor	Assistant Professor		Contractual Fulltime	No	28/06/2025	No
18	Dr. Lakshmi Variar C V	XXXXXXXX11R	Ph.D	COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY	Polymer technology	30/01/2025	0.11	Assistant Professor	Assistant Professor		Regular	Yes		No
19	Nayana. V.T	XXXXXXXX12P	M.Tech	APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY	Computer Aided Process Design	17/01/2025	1	Assistant Professor	Assistant Professor		Regular	Yes		No
20	Dr. Sajeena Beevi B	XXXXXXXX99B	Ph.D	COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY	Chemical Engineering	24/09/2025	0.4	Professor	Professor	24/09/2025	Regular	Yes		Yes
21	Dr.Fasnabi P.A	XXXXXXXX27B	Ph.D	COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY	Chemical Engineering	24/09/2025	0.4	Professor	Professor	24/09/2025	Regular	Yes		No
22	Dr.Praseetha P Nair	XXXXXXXX95Q	Ph.D	COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY	Materials	24/09/2025	0.4	Professor	Professor	24/09/2025	Regular	Yes		No
23	Ajeesh K N	XXXXXXXX89N	M.Tech	NIT WARANGAL	Chemical Engineering	16/07/2025	0.6	Associate Professor	Associate Professor	16/07/2025	Regular	Yes		No
24	Sachithra K	XXXXXXXX05Q	M.Tech	CALICUT UNIVERSITY	PROCESS CONTROL	31/07/2024	1.5	Assistant Professor	Assistant Professor		Regular	Yes		No
25	Syama K	XXXXXXXX89M	M.Tech	IIT, MADRAS	Chemical Engineering	08/07/2025	0.6	Assistant Professor	Assistant Professor		Regular	Yes		No
26	Dr. Ushakumary E R	XXXXXXXX55N	Ph.D	COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY	Chemical Engineering-Envtl Engg	12/06/2001	24.7	Assistant Professor	Professor	02/04/2018	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(2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)
UG1.B	66	66	66
UG1.C	66	66	66
UG1.D	66	66	66
UG1: Chemical Engineering	198	198	198
PG1.A	18	18	18
PG1.B	18	18	18
PG1: Computer Aided Process Design	36	36	36
DS=Total no. of students in all UG and PG programs in the Department	234	234	234
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= 234	S2= 234	S3= 234
DF=Total no. of faculty members in the Department	14	15	16
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= 14	F2= 15	F3= 16
FF=The faculty members in F who have a 100% teaching load in the first-year courses	1	1	1
Student Faculty Ratio (SFR)=S/(F-FF)	SFR1= 18.00	SFR2= 16.71	SFR3= 15.60
Average SFR for 3 years	SFR= 16.77		

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 = $2.5 * [(10X + 4Y) / RF]$
2025-26(CAY)	7	7	11.00	22.27
2024-25(CAYm1)	10	5	11.00	27.27
2023-24(CAYm2)	9	7	11.00	26.82

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
2025-26	1.00	2.00	2.00	1.00	7.00	9.00
2024-25	1.00	6.00	2.00	1.00	7.00	4.00
2023-24	1.00	6.00	2.00	0.00	7.00	4.00
Average	RF1=1.00	AF1=4.67	RF2=2.00	AF2=0.67	RF2=7.00	AF2=5.67

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	Mr.Rajput Shubham Ajaykumar	PMRF-PhD Scholar , Solar Energy Research Group (SERG), Department of Chemical Engineering,	Indian Institute of Technology Madras	Chemical Reaction Engineering	30.00
2	Mr. Reji	Chief Engineer (Project & Environment)	Travancore Cochin Chemicals Ltd, Udyogamandal	Safety Engineering of Process Plants	20.00
3	Mr.Harshit Kumar	Assistant Manager, LPG sales	Indian Oil Corporation Limited	Safety Engineering of Process Plants	3.00

(CAYm2)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mrs. Nishida	Regional Technical Head	IPCS Global Kozhikode	Process Control	3.00

(CAYm3)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr.Suraj P	PMRF-PhD Research Scholar	Indian Institute of Technology, Kharagpur	Mass Transfer Operations -I	24.00
2	Mr.Suraj P	PMRF-PhD Research Scholar	Indian Institute of Technology, Kharagpur	Fluid and Particle Mechanics	42.00

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	7	4	5
2	No. of peer reviewed conference papers published	1	9	4
3	No. of books/book chapters published	4	0	1

C7. Sponsored Research Project

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

(CAYm1)

(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.Praseetha P Nair	Dr.Subin Poullose, Mini Abraham, Maria Dainy	Govt. Engineering College, Thrissur	Development of Hybrid Bionano composites using Cellulose Derivative/Hydroxyapatite Matrix for Controlled Release of NPK Fertilizers	Kerala State Council for Science, Technology and Environment	3 years	15.00
						Amount received (Rs.):15.00

(CAYm3)

Total Amount (Lacs) Received for the Past 3 Years: 15.00**Note*:**

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

C8. Consultancy Work

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

(CAYm1)

(CAYm2)

(CAYm3)

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

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

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

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

(CAYm1)

(CAYm2)

(CAYm3)

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.Praseetha P Nair	Development of polymer nanocomposites with enhanced mechanical and biological properties	1 Year	2.00	2.00	Attached
			Amount received (Rs.): 2.00		

Total amount (Lacs) received for the past 3 years : 2.00

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	UCEST105 Algorithmic Thinking with Python	4	PYCHARM	Yes 2 hrs/week	Jineesh V C	Trade instructor Grade I	B Tech in Chemical Eng
2	EST102 PROGRAMMING IN C	4	DEV C++	Yes 2 hrs/week	Jineesh V C	Trade instructor Grade I	B Tech in Chemical Eng
3	CHL201/ PCCHL307 CHEMICAL TECHNOLOGY & ENVIRONMENTAL	4	Red wood viscometer, flash& fire point apparatus , Wateranalyser, pH meter	Yes 6 hrs/week	Rajagopalan P M	Tradesman (Chemical)	THSSLC Trade soap an
4	CHL202/ PCCHL308 FLUID AND PARTICLE MECHANICS LAB	4	Centrifugal Pump, venturi metre, orifice metre, Bernoulli's theorem apparatus	Yes 6hrs/week	Sunil K N	Tradesman (Chemical)	BSc, BEd, AOCF
5	CHL 204/ PCCHL407 PARTICLE TECHNOLOGY LAB	4	Ball mill, Cyclone Separator, Sieve shaker Jaw crusher Rotary drum vaccum filter	Yes 6hrs/week	Dheeraj S	Tradesman (Chemical)	Diploma in Chemical en
6	CHL 331/ PCCHL408 HEAT TRANSFER OPERATIONS LAB	4	Shell & Tube heat exchanger, forced convection apparatus	Yes 6hrs/week	Babu K V	Trade instructor Grade I	ITI Electrical
7	CHL 333 PROCESS CONTROL LAB	4	Control valve characteristics, Two tank interacting system, Mixing process, Single tank system	Yes 6hrs/week	Bijoy M	Instructor Grade II	Diploma in Chemical en
8	CHL 332/ PCCHL508 MASS TRANSFER OPERATIONS LAB	4	Apparatus for Steam and simple distillation	Yes 6hrs/week	Bijina K P	Trade instructor Grade I	Diploma in Chemical en
9	CHL 334 /PCCHL507 CHEMICAL REACTION ENGINEERING LAB	4	Isothermal batch reactor, plug flow reactor, Packed bed reactor,combined CSTR, UV photo reactor	Yes 6hrs/week	Bijoy M	Instructor Grade II	Diploma in Chemical en
10	CHL 411/ CHL 607 PROCESS SIMULATION LAB	4	ANSYS FLUENT, MATLAB UNISIM	Yes 4 hrs/week	Jineesh V C	Trade instructor Grade I	B Tech in Chemical Eng

D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures

1	Chemical Technology and Environmental Engineering lab	1. Handling of strong acids and bases requires special attention. When diluting concentrated acids, the acid should be poured into the water and never the opposite. 2. Keep the laboratory and work area clean and uncluttered 3. While handling flammable liquids such as ether, alcohols, and benzene, naked flames (burners and matches) must not be in use. The above liquids must not be stored near radiating heat sources, such as the laboratory oven. 4. Students should be in proper uniform and safety shoes. 5. Ensure proper usage of safety gloves and goggles. 6. Liquid and solid waste containers must be properly used at all times.
2	Fluid and Particle Mechanics lab	1. Before leaving the laboratory, electrical equipment should be turned off. No tap water should be left running. 2. Before using electrical appliances, make sure they are grounded. 3. Students should be in proper uniform and safety shoes.
3	Particle Technology lab	1. Before using electrical appliances, make sure they are grounded. 2. Before leaving the laboratory, electrical equipment should be turned off. 3. No tap water should be left running 4. Students should be in proper uniform and safety shoes.
4	Heat Transfer Operations lab	1. Use equipment only for its designated purpose. 2. Be familiar with the manufacturer's instructions before using. 3. Inspect equipment for damage; do not use damaged equipment.
5	Mass Transfer Operations lab	1. Use equipment only for its designated purpose. 2. Be familiar with the manufacturer's instructions before using. 3. Inspect equipment for damage; do not use damaged equipment.
6	Process Control and Reaction Engineering lab	1. Use equipment only for its designated purpose. 2. Be familiar with the manufacturer's instructions before using. 3. Inspect equipment for damage; do not use damaged equipment.
7	Bioprocess Engineering lab	1. Pathogen safety data sheet 2. All equipment which has come into contact with potentially infectious materials must be properly decontaminated.
8	Simulation lab	1. Students are directed to work silently in the computer lab. 2. Directed to keep their files properly. 3. Shut down computers before leaving the lab.
9	R & D lab	1. Handling of strong acids and bases requires special attention. When diluting concentrated acids, the acids should be poured into the water and never the opposite. 2. The pipettes should never be filled with solutions of toxic substances, biological fluids, strong acids and bases by mouth suction. Use either automatic pipettes or pipette pumps. 3. Volatile liquids and solids that are toxic or irritating should be handled under fume hoods. 4. When handling flammable liquids such as ether, alcohols, and benzene, naked flames (burners and matches) must not be used. The above liquids must not be stored near radiating heat sources, such as the laboratory oven. 5. Before using electrical appliances, make sure they are grounded. 6. Flasks with flat bottoms or thin walls should not be desiccated. 7. Before leaving the laboratory, electrical equipment should be turned off and gas burners extinguished. 8. No tap water should be left running. 9. All injuries and accidents must be reported to the instructor.
10	Project Laboratory	1. Use equipment only for its designated purpose. 2. Handling of strong acids and bases requires special attention. When diluting concentrated acids, the acids should be poured into the water and never the opposite. 3. All injuries and accidents must be reported to the instructor.

D3. Project Laboratory/Research Laboratory

Research laboratories are workplaces for the conduct of scientific research. Laboratory facilities should provide space to perform experiments, monitoring and calibration, information processing and retrieval. Mini/micro/course projects can be carried out in those laboratories which have the suitable infrastructure required for the work. Labs can be accessed beyond working hours also by students and faculty to carry out projects and research activities.

All the departments have excellent laboratory facilities. The students of the department can access all the labs/facilities available in the institution, including those of other departments.

The major instruments available in this department include HPLC, Fermenter, GCMS, FTIR, UV Spectrophotometer, AAS, Incubator and various supporting units. The students can also use modern engineering tools like PYTHON, FLUENT, UNISIM and MATLAB available in the simulation lab. In addition, we also have a technology business incubator to nurture entrepreneurial skills.

SL No	Name of the Facilities	Specification	Utilization
1	Atomic Absorption Spectrometer	Model: Thermo scientific Ice 3000 series, SI NO: C13300016; Wavelength ranges: 185 to 900 nm Absorbance range: 0.150 A to 3.000 A Detector system: Wide range photomultiplier tube Light source: Hollow cathode lamps for Pb, Cr, Cd, Cu, Fe, Zn, Hg, As. Gas control: 1) Air-Acetylene – 0.8 to 2.3 L/min. 2) Nitrous oxide/Acetylene- 3.6 to 5.1L/min Cost: Rs. 1432181/-	Utilized for regular lab work, project work, research work, consultancy work, etc.
2	Bomb Calorimeter	Model :BCM-PC Operating voltage:220VAC+10%50Hz Temp: 20-30°C, Stirred output: 4pin/3pin DIN connector, Cost: Rs. 208125/-	Utilized for regular lab work, project work, research work, consultancy work, etc.
3	Cyclone Baffle Reactor for Dairy waste treatment	Experimental set up fabricated for the project work.	Utilized for project work, research work, consultancy work, etc.
4	Microwave-Assisted Plastic Pyrolysis	Experimental set up fabricated for the project work.	Utilized for regular lab work, project work, research work, consultancy work, etc.
5	Fluidized Bed Pyrolysis	Experimental set up fabricated for project work.	Utilized for regular lab work, project work, research work, consultancy work, etc.
5	Pyrolysis unit	Experimental set up fabricated for project work.	Utilized for project work, research work

7	Gober gas anaerobic digester	Experimental set up fabricated for project work.	Utilized for project work, research work, consultancy work, etc.
8	Muffle Furnace	Model: MFHT-1, Cost: Rs. 150000/-	Utilized for regular lab work, project work, research work, consultancy work, etc.
9	Vacuum Dryer	Model:SZ037D, SLNo:60182 Power:500W, Input voltage:230VAC 50Hz Cost: Rs. 50,000/-	Utilized for regular lab work, project work, research work, consultancy work, etc.
10	Injection Moulding Machine	Model: JIM.7HD, Series:44.77.3 Heat capacity:1.5 KW, System pr:80kg/cm Cost: Rs. 100,000/-	Utilized for regular lab work, project work, research work, consultancy work, etc.
11	pH meter	Model: LM pH 12 Cost: Rs 35400/-	Utilized for regular lab work, project work, research work, consultancy work, etc.
12	Portable digital Hydrometer	Model: KEM -DA -130N Measuring range: 0.0001 to 2g/cm ³ Accuracy: ±0.001g/cm ³ Resolution: 0.0001 g/cm ³ Temp range: 0 to 50 °C Cost: Rs 198830/-	Utilized for regular lab work, project work, research work, consultancy work, etc.
13	BOD Incubator	Model: Lab line BOD 2 Dimension: 500*850*400mm, Capacity: 6.0Cu. Ft Temp. Range: 5°C to 50°C± 0.5°C Heating element: Finned type stainless steel tubular Cost: Rs 61018/-	Utilized for regular lab work, project work, research work, consultancy work, etc.
14	Laminar air flow chamber	Dimension: 500 x 850x 400 mm, Capacity: 6.0 Cu. Ft, Temp. Range: 5 ⁰ C to 50 ⁰ C ± 0.5 ⁰ C No. of shelves: 3 Cost: Rs 42998/-	Utilized for regular lab work, project work, research work, consultancy work, etc.
15	Bacteriological Incubator	Rotek bacteriological incubator with digital and air circulating pan. Size 45*45*45mm Cost: Rs. 17,346/-	Utilized for regular lab work, project work, research work, consultancy work, etc.

16	In-situ sterilizable fermenter	Model No: BIO-spin 051 Working Volume: 3L to 3.5L Total Volume:4.5L to5L Minimum working volume: 1L D/H ratio: 1.2 to 1.5 Minimum thickness: 4mm Working pressure: 3.0 kg/cm ² Working Temp: 15 to 150 °C Cost: Rs. 14,49,879/-	Utilized for regular lab work, project work, research work, consultancy work, etc.
17	Autoclave	Model: Lab line AU 101 Inner chamber: 250x450 mm Boiler: Stainless steel 304 quality Temperature Control: Digital Pressure Control: SS Automatic spring located valve Working pressure: 15 lb/sq inch Cost: Rs. 33,516/-	Utilized for regular lab work, project work, research work, consultancy work, etc.
18	Portable flue gas efficiency monitor for O ₂ , CO, NO, NO ₂ and SO ₂ .	Model: FEM 7 Size and weight: 26× 14×10 cm and 1.8 kg Working temperature: 5 to 450C Temperature probe: Thermocouple, K type Probe length: 45 cm (approx.) copper tube Cost: 2,64,320/-	Utilized for regular lab work, project work, research work, consultancy work, etc.

PART E: First Year faculty and financial Resources

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

E1. First Year Student-Faculty Ratio (FYSFR)

Table No. E1.1: FYSFR details.

Year	Sanctioned intake of all UG programs (S4)	No. of required faculty (RF4= S4/20)	No. of faculty members in Basic Science Courses & Humanities and Social Sciences including Management courses (NS1)	No. of faculty members in Engineering Science Courses (NS2)	Percentage= No. of faculty members ((NS1*0.8) + (NS2*0.2))/(No. of required faculty (RF4)); Percentage=((NS1*0.8) + (NS2*0.2))/RF

2023-24(CAYm2)	360	18	10	9	54
2024-25(CAYm1)	360	18	10	14	60
2025-26(CAY)	360	18	10	19	66

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	925217	925217	316200	316200	1192593	1192593	353827	353827
Library	0	0	138050	138050	302376	302376	633749	633749
Laboratory equipment	3800515	3800515	2362253	2362253	5877754	5877754	1716353	1716353
Teaching and non-teaching staff salary	245448803	245448803	220623028	220623028	206461352	206461352	206951085	206951085
Outreach Programs	0	0	0	0	0	0	0	0
R&D	0	0	0	0	529677	529677	784000	784000
Training, Placement and Industry linkage	0	0	104589	104589	647873	647873	395322	395322
SDGs	0	0	0	0	0	0	0	0
Entrepreneurship	0	0	0	0	0	0	0	0
Others, specify	0	0	0	0	0	0	0	0
Total	250174535	250174535	223544120	223544120	215011625	215011625	210834336	210834336

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	758100	758100	474450	474450	1467438	1467438	427080	427080
Software	0	0	0	0	0	0	0	0
SDGs	0	0	0	0	0	0	0	0
Support for faculty development	0	0	0	0	0	0	0	0

R & D	0	0	0	0	133400	133400	19700	19700
Industrial Training, Industry expert, Internship	0	0	21917	21917	130574	130574	80064	80064
Miscellaneous Expenses*	92000	92000	9500	9500	168600	168600	69980	69980
Total	850100	850100	505867	505867	1900012	1900012	596824	596824