

NATIONAL BOARD OF ACCREDITATION

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

Program Name : Mechanical Engineering	Discipline: Engineering & Technology
Level : Under Graduate	Tier: 2
Application No: 11159	Date of Submission: 24-11-2025

PART A- Profile of the Institute

A1.Name of the Institute: NALANDA COLLEGE OF ENGINEERING, CHANDI	
Year of Establishment : 2008	Location of the Institute: Chandi Nalanda
A2. Institute Address: NALANDA COLLEGE OF ENGINEERING, CHANDI P.O. CHANDI, DISTT. NALANDA	
City: Nalanda	State: Bihar
Pin Code: 803108	Website: www.ncechandi.ac.in
Email: ncechanditeqip2018@gmail.com	Phone No (with STD Code): -
A3. Name and Address of the Affiliating University (if any):	
Name of the University : All India Council for Technical Education	City: Patna
State : Bihar	Pin Code: 800001
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: **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	Aeronautical Engineering	2022	--	Aeronautical Engineering
2	Engineering & Technology	UG	Artificial Intelligence and Machine Learning	2023	--	Computer Science and Engineering
3	Engineering & Technology	UG	Civil Engineering	2008	--	Civil Engineering
4	Engineering & Technology	PG	Computer Science and Engineering	2024	--	Computer Science and Engineering
5	Engineering & Technology	UG	Computer Science and Engineering	2008	--	Computer Science and Engineering
6	Engineering & Technology	UG	Electrical and Electronics Engineering	2008	--	Electrical and Electronics Engineering
7	Engineering & Technology	UG	Mechanical Engineering	2008	--	Mechanical Engineering
8	Engineering & Technology	PG	Power Systems	2020	--	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
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/COMPE AUTHORITY A DETAILS
1	Mechanical Engineering	UG	2008 / --	60	No	NA	60	2008	F.No. Northern/ 44643138119/2

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 :	Md. Zishanur Rahman
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	51	42	38	51	49	60	58
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	18	20	5	5	5	5
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.	51	60	58	56	54	65	63

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	51	0	85.00
2024-25 (CAYm1)	60	42	0	70.00
2023-24 (CAYm2)	60	38	0	63.33

Average [(ER1 + ER2 + ER3) / 3] = 72.78≅ 14.00

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

Table No.B5.1: The success rate in the stipulated period of a program.

Item	(2021-22) LYG	(2020-21) LYGm1	(2019-20) LYGm2
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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).	65.00	65.00	65.00
B=No. of students who graduated from the program in the stipulated course duration	54.00	65.00	63.00
Success Rate (SR)=(B/A) * 100	83.08	100.00	96.92

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 93.33

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)	7.70	7.60	7.55
Y=Total no. of successful students	60.00	58.00	56.00
Z=Total no. of students appeared in the examination	42.00	38.00	51.00
API [X*(Y/Z)]	10.86	11.45	8.13

Average API[(AP1+AP2+AP3)/3] : 10.15

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)	7.80	7.67	7.70
Y=Total no. of successful students	58.00	56.00	54.00
Z=Total no. of students appeared in the examination	78.00	61.00	59.00
API [X * (Y/Z)]	5.80	7.04	7.05

Average API [(AP1 + AP2 + AP3)/3] : 6.63

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

Table No.B8.1: Academic Performance of the Third Year Students of the Program

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
X=(Mean of 3rd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 3rd year/10)	8.00	7.90	7.89
Y=Total no. of successful students	56.00	54.00	65.00
Z=Total no. of students appeared in the examination	56.00	54.00	65.00

Average API [(AP1 + AP2 + AP3)/3] : 10.00

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	65.00	65.00	65.00
X=No. of students placed	7.00	11.00	8.00
Y=No. of students admitted to higher studies	6.00	3.00	5.00
Z= No. of students taking up entrepreneurship	0.00	0.00	0.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	20.00	21.54	20.00

Average Placement Index = (P_1 + P_2 + P_3)/3: 20.51 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 Associat (Y/N)
1	Gopal Nandan	XXXXXXXX18J	Ph.D	IIT Rookee	Thermal Engineering	19/10/2023	2.1	Professor	Professor	19/10/2023	Regular	Yes

2	Md. Zishanur Rahman	XXXXXXXX06J	Ph.D	IIT ISM Dhanbad	Manufacturing Process	17/01/2018	7.10	Assistant Professor	Assistant Professor		Regular	Yes
3	Alok Kumar	XXXXXXXX31K	Ph.D	NIT Patna	Renewal Energy	17/01/2018	7.10	Assistant Professor	Assistant Professor		Regular	Yes
4	Avinash Kumar	XXXXXXXX61N	M.Tech	IIT, Patna	Mechatronics	29/12/2017	7.10	Assistant Professor	Assistant Professor		Regular	Yes
5	Shubham Kumar	XXXXXXXX72G	M.Tech	IIT ISM Dhanbad	Machine Design	18/04/2023	2.7	Assistant Professor	Assistant Professor		Regular	Yes
6	SauraBH Suman	XXXXXXXX92B	M.Tech	SLIET, Longowal	Welding and fabrication	18/04/2023	2.7	Assistant Professor	Assistant Professor		Regular	Yes
7	Tanu Kumari	XXXXXXXX27G	M.Tech	AKU, Patna	Machine Design	01/07/2023	2.4	Assistant Professor	Assistant Professor		Regular	Yes
8	Mamta Kumari	XXXXXXXX71K	M.Tech	NIT Jalandhar	Manufacturing technology	28/04/2023	2.6	Assistant Professor	Assistant Professor		Regular	Yes
9	Anisha	XXXXXXXX18B	M.Tech	DIAT Pune	Mechanical System Design	19/04/2023	0.9	Assistant Professor	Assistant Professor		Regular	No
10	Sonu Kumar	XXXXXXXX34C	M.Tech	IIT BHU	Machine Design	03/01/2018	5.2	Assistant Professor	Assistant Professor		Regular	No
11	Rajesh Kumar	XXXXXXXX21N	Ph.D	NIT Patna	Thermal Engineering	30/12/2017	5.3		Assistant Professor		Regular	No
12	Nishit Yadav	XXXXXXXX00A	M.Tech	MNIT Allahabad	Machine Design	03/01/2018	5.2	Assistant Professor	Assistant Professor		Regular	No
13	Pappu Kumar	XXXXXXXX64H	M.Tech	IIT Ropar	Thermal Engineering	18/01/2018	5.2	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: Mechanical Engineering	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	8	8	7
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= 8	F2= 8	F3= 7
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= 22.50	SFR2= 22.50	SFR3= 25.71

Description	CAY(2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)
Average SFR for 3 years	SFR= 23.57		

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 = $2.5 \times [(10X + 4Y) / RF]$
2025-26(CAY)	3	5	9.00	13.89
2024-25(CAYm1)	2	6	9.00	12.22
2023-24(CAYm2)	1	6	9.00	9.44

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	1.00	2.00	0.00	6.00	7.00
2024-25	1.00	1.00	2.00	0.00	6.00	7.00
2023-24	1.00	0.00	2.00	0.00	6.00	7.00
Average	RF1=1.00	AF1=0.67	RF2=2.00	AF2=0.00	RF2=6.00	AF2=7.00

C5. Visiting/Adjunct Faculty/Professor of Practice

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

(CAYm1)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	0	0	0	0	0.00

(CAYm2)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	0	0	0	0	0.00

(CAYm3)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	0	0	0	0	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	5	1	1
2	No. of peer reviewed conference papers published	3	0	0
3	No. of books/book chapters published	0	0	2

C7. Sponsored Research Project

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

(CAYm1)

(CAYm2)

(CAYm3)

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

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

C8. Consultancy Work

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

(CAYm1)

(CAYm2)

(CAYm3)

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

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

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

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

(CAYm1)

(CAYm2)

(CAYm3)

Total amount (Lacs) received for the past 3 years :**PART D: Laboratory Infrastructure in the Department****(Data to be filled in for the Department)****D1. Adequate and Well-Equipped Laboratories, and Technical Manpower**

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

Sr. No	Name of the Laboratory	Number of students per set up(Batch Size)	Name of the Important Equipment	Weekly utilization status(all the courses for which the lab is utilized)	Technical Manpower Support		
					Name of the Technical staff	Designation	Qualification
1	Engineering Graphics & Design	30	Drawing Table, Board, stools, Mini Drafter	12 hrs	Navin Kumar	Instructor	Diploma
2	Workshop Practice Fitting, Carpentry, Machine,	60	Lathe, Milling M/C, Shaping M/C, Drill M/C, Grinding M/C (surface), Power Metal Saw, Metal vice	12 hrs	Mr. Dhananja	Instructor	ITI
3	Engineering Mechanics Lab	30	Worm and worm wheel, Single and double purchase winch crab, Centrifugal force pendulum, Mohr's circle	4 hrs	Mr. Chandan	Instructor	ITI
4	Fluid Mechanics & Machinery Lab	30	Pitot Tube, Reynolds Apparatus, Pipe Friction, Notches, Bernoulli's Theorem, Orifices & Mouthpieces	8 hrs	Pravesh Prak	Instructor	Diploma
5	I C Engine	30	Single cylinder diesel engine test Rig with electric dynamometer, Single cylinder petrol engine test	4 hrs	Mr. Vijay Sing	Instructor	ITI
6	Elements of Mechanical Engineering	30	Model of engines: Two stroke petrol engine, Two stroke diesel engine, Four stroke petrol engine	12hrs	Mr. Chandan	Instructor	ITI
7	Workshop	30	Arc Welding Apparatus, Resistance Welding Apparatus, Gas Welding Apparatus, Electric	12 hrs	Mr. Dhananja	Instructor	ITI
8	Dynamics of Machinery	30	Brake Dynamometer test apparatus. Epicyclic Gear train test apparatus. Curves of couple test	4 hrs	Mr. Pravesh f	Instructor	Diploma
9	Heat and Mass Transfer	30	Heat transfer in pin fin apparatus, heat transfer in natural convection, Heat transfer in forced convection	4hrs	Mr. Navin Ku	Instructor	Diploma

10	Computer Aided Design and Manufacturing	30	Computer System, CNC lathe, CNC milling / Drilling	4hrs	Keshar kuma	Instructor	B Tech
11	Mechanical System Design	30	Design Problems, Journal Bearing Apparatus	4hrs	Pravesh Prak	Instructor	Diploma
12	Design of Machine Elements	30	Numericals	4hrs	Mr. Navin Kuri	Instructor	Diploma
13	Machine Drawing Lab	30	Models of 1. Screw jack 2. Nut and Bolt 3. Bush bearing 4. Riveted joint 5. IC Engine Piston & Crank	4hrs	Mr. Navin Kuri	Instructor	Diploma
14	Manufacturing Technology	30	Vernier caliper, Micrometre, Lath machine, drilling machine	4hrs	Mr. Navin Kuri	Instructor	Diploma

D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures
1	Engineering Mechanics Lab	• Fire Extinguisher, First-Aid Box, Charts for safety precautions and ensure that safety devices are adequate, appropriate and in good working order. • Also make sure that you know the location of Fire Extinguishers, First Aid Kit and Emergency Exits before you start your experiments • Wear shoes for safety and don't wear loose garments, jewels and tie etc. while performing the experiment equipment. • Always maintain awareness of the surrounding activities and walk in aisles to the extent possible. • Maintain clean and orderly laboratories and work area. Discard immediately unwanted items. Leave coats, books and note books on the shelf or seating benches. • Students are responsible for maintaining work area in a safe and reasonable condition. • Wear safety eyewear when needed. • Do not leave experiments running unattended. • Use laboratory equipment only for its intended purpose, do not play with valves, screws, weights and nuts. • Do not try to run and operate any machine without permission and knowledge of the lab Personnel. • Keep labs locked when unoccupied • Students are not allowed to work in the laboratory after office hours without the approval from the department. Report any and all accidents immediately to your supervisor or lab personnel for proper care and first aid.
2	Workshop	• Rubber Mats, Gloves, Goggles, Fire Extinguisher, First-Aid Box, Charts for safety precautions and ensure that safety devices are adequate, appropriate and in good working order. • Make sure that you know the location of Fire Extinguishers, First Aid Kit and Emergency Exits before you start your experiments • Follow the safety instructions displayed in the lab • Do NOT wear contact lenses when performing laboratory work • Eye protection and hearing protection should be worn when performing tasks with potential to generate flying particles or metals chips. Most power tool related tasks generate such hazards • All loose clothing (eg. shirts hanging out) must be tucked in. • Electrical equipment and connections should not be handled with wet hands. • Safety shoes/boots must be worn at all times at the workshop and helmets must be put on (wherever needed) during test. Do not enter under any circumstances without this footwear, there are no exceptions to this rule. • All setup must be checked and approved by the project supervisor prior to the commencement of the work on equipment. • Students are not allowed to do any work on equipment, without under supervision of the project supervisor or Lab In charge or lab attended and also are not allowed to work in the laboratory after office hours without the approval from the department. • Do not try to run and operate any machine without permission and knowledge of the lab Personnel. • Long hair has to be tied up including fringes. • Do not play with valves, screws and nuts. • Keep labs locked when unoccupied • Remove rings and loose jewellery before operating machinery they can be a hazard.

3	Fluid Mechanics and Fluid Machinery Lab	• Fire Extinguisher, First-Aid Box, Charts for safety precautions and ensure that safety devices are adequate, appropriate and in good working order. • Also make sure that you know the location of Fire Extinguishers, First Aid Kit and Emergency Exits before you start your experiments • Before performing experiment read instrument manual carefully. • Report any damage of equipment/instrument to staff immediately. • Water on the floor must be swept away immediately. • Do NOT wear contact lenses when performing laboratory work • Wear shoes for safety and don't wear loose garments, jewels and tie etc. while performing the experiment equipment. • Always maintain awareness of the surrounding activities and walk in aisles to the extent possible. • Maintain clean and orderly laboratories and work area. Discard immediately unwanted items. Leave coats, books and note books in the lecture room. • Make sure all spilled liquids are wiped up immediately • Students are responsible for maintaining work area in a safe and reasonable condition. • All extension cords must be secured above ground level. • All floor openings must be barricaded and warning signs posted. • Electrical equipment and connections should not be handled with wet hands, nor should they be used after liquid has been spilled on it. • Wear safety eyewear when needed. • Do not leave experiments running unattended. • Laboratories must be locked if no one is in the lab • Report any and all accidents immediately to your supervisor or lab personnel for proper care and first aid
4	I C Engine Lab	• Fire Extinguisher, First-Aid Box, Charts for safety precautions and ensure that safety devices are adequate, appropriate and in good working order. • Also make sure that you know the location of Fire Extinguishers, First Aid Kit and Emergency Exits before you start your experiments • Every Student should know the locations and operating procedures of all safety equipment including, First AID KIT (s) and Fire extinguisher. • Wear shoes for safety and don't wear loose garments, jewels and tie etc. while performing the experiment equipment. • Always maintain awareness of the surrounding activities and walk in aisles to the extent possible. • Do NOT wear contact lenses when performing laboratory work • Avoid the use of damaged equipment and provides needful equipment and components. • Maintain clean and orderly laboratories and work area. Discard immediately unwanted items. Leave coats, books and note books in the lecture room. • Students are responsible for maintaining work area in a safe and reasonable condition. • Electrical equipment and connections should not be handled with wet hands. • Do not dip hands in hot water. • Report any and all accidents immediately to your supervisor or lab personnel for proper care and first aid • Keep labs locked when unoccupied
5	Strength of Material Lab	• Fire Extinguisher, First-Aid Box, Charts for safety precautions and ensure that safety devices are adequate, appropriate and in good working order. • Also make sure that you know the location of Fire Extinguishers, First Aid Kit and Emergency Exits before you start your experiments • Every Student should know the locations and operating procedures of all safety equipment including, First AID KIT (s) and Fire extinguisher. • Wear shoes for safety and don't wear loose garments, jewels and tie etc. while performing the experiment equipment. • Use laboratory equipment only for its intended purpose, do not play with valves, screws, weights and nuts. • Always maintain awareness of the surrounding activities and walk in aisles to the extent possible. • Maintain clean and orderly laboratories and work area. Discard immediately unwanted items. Leave coats, books and note books in the lecture room. • Students are responsible for maintaining work area in a safe and reasonable condition. • Wear safety eyewear when needed. • Do not leave experiments running unattended. • Report any and all accidents immediately to your supervisor or lab personnel for proper care and first aid • Students are not allowed to do any load test on test frame, without supervision by the project supervisor. • Loading setup must be checked and approved by the project supervisor prior to the commencement of the test. • Electrical equipment and connections should not be handled with wet hands. • Laboratories must be locked if no one is in the lab.

6	DOM	• Fire Extinguisher, First-Aid Box, Charts for safety precautions and ensure that safety devices are adequate, appropriate and in good working order. • Also make sure that you know the location of Fire Extinguishers, First Aid Kit and Emergency Exits before you start your experiments • Students are not allowed to do any load test on test frame, without supervision by the project supervisor. • Loading setup must be checked and approved by the project supervisor prior to the commencement of the test. • Do NOT wear contact lenses when performing laboratory work • Wear shoes for safety and don't wear loose garments, jewels and tie etc. while performing the experiment equipment. • Always maintain awareness of the surrounding activities and walk in aisles to the extent possible. • Electrical equipment and connections should not be handled with wet hands. • Maintain clean and orderly laboratories and work area. Discard immediately unwanted items. Leave coats, books and note books in the lecture room. • Students are responsible for maintaining work area in a safe and reasonable condition. • Know the location of fire exits, pull-stations, and extinguishers. • Keep labs locked when unoccupied • Do not leave experiments running unattended. • Report any and all accidents immediately to your supervisor or lab personnel for proper care and first aid • Use laboratory equipment only for its intended purpose, do not play with valves, screws, weights and nuts.
7	Mechanical System Design	• Fire Extinguisher, First-Aid Box, Charts for safety precautions and ensure that safety devices are adequate, appropriate and in good working order. • Also make sure that you know the location of Fire Extinguishers, First Aid Kit and Emergency Exits before you start your experiments • Students are not allowed to do any load test on test frame, without supervision by the project supervisor. • Loading setup must be checked and approved by the project supervisor prior to the commencement of the test. • Do NOT wear contact lenses when performing laboratory work • Wear shoes for safety and don't wear loose garments, jewels and tie etc. while performing the experiment equipment. • Always maintain awareness of the surrounding activities and walk in aisles to the extent possible. • Electrical equipment and connections should not be handled with wet hands. • Maintain clean and orderly laboratories and work area. Discard immediately unwanted items. Leave coats, books and note books in the lecture room. • Students are responsible for maintaining work area in a safe and reasonable condition. • Know the location of fire exits, pull-stations, and extinguishers. • Keep labs locked when unoccupied • Do not leave experiments running unattended. • Report any and all accidents immediately to your supervisor or lab personnel for proper care and first aid • Use laboratory equipment only for its intended purpose, do not play with valves, screws, weights and nuts.
8	Engineering Graphics & Design and Machine Drawing Lab	• Take the proper instructions of the use of drawing instruments such as mini drafter, French curves, divider, compass, wooden block, clips, etc so that it can be used efficiently without any fail. • Students are not allowed to work in the drawing hall after office hours without the approval from the department. • Proper lighting in the room • Make yourself in comfortable position of drawing so that it could be drawn with accuracy. • Don't lean too much onto the drawing board • Switch off all the system after the CAD lab and don't tamper any device. • Keep labs locked when unoccupied.
9	Heat & Mass Transfer	• Fire Extinguisher, First-Aid Box, Charts for safety precautions and ensure that safety devices are adequate, appropriate and in good working order. • Also make sure that you know the location of Fire Extinguishers, First Aid Kit and Emergency Exits before you start your experiments • Do NOT wear contact lenses when performing laboratory work • Wear shoes for safety and don't wear loose garments, jewels and tie etc. while performing the experiment equipment. • Always maintain awareness of the surrounding activities and walk in aisles to the extent possible. • Electrical equipment and connections should not be handled with wet hands. • Maintain clean and orderly laboratories and work area. Discard immediately unwanted items. Leave coats, books and note books in the lecture room. • Students are responsible for maintaining work area in a safe and reasonable condition. • Every Student should know the locations and operating procedures of all safety equipment including, First AID KIT (s) and Fire extinguisher. • Keep labs locked when unoccupied • Do not leave experiments running unattended. • Do not touch the warm surfaces with hand. • Do not dip hands in hot water. • Report any and all accidents immediately to your supervisor or lab personnel for proper care and first aid

10	Elements of Mechanical Engineering	• Fire Extinguisher, First-Aid Box, Charts for safety precautions and ensure that safety devices are adequate, appropriate and in good working order. • Also make sure that you know the location of Fire Extinguishers, First Aid Kit and Emergency Exits before you start your experiments • Wear shoes for safety and don't wear loose garments, jewels and tie etc. while performing the experiment equipment. • Always maintain awareness of the surrounding activities and walk in aisles to the extent possible. • Maintain clean and orderly laboratories and work area. Discard immediately unwanted items. Leave coats, books and note books on the shelf or seating benches. • Students are responsible for maintaining work area in a safe and reasonable condition. • Wear safety eyewear when needed. • Use laboratory equipment only for its intended purpose, do not play with models. • Keep labs locked when unoccupied • Students are not allowed to work in the laboratory after office hours without the approval from the department. Report any and all accidents immediately to your supervisor or lab personnel for proper care and first aid
11	CAD-CAM LAB	• Laboratory rules and safety instructions are displayed prominently. • Students are briefed about safe operating procedures before using computers and software. • Entry to the laboratory is permitted only under faculty or lab staff supervision. • Food, beverages, and liquids are strictly prohibited inside the laboratory. • Students are instructed to handle all equipment with care • All computers and peripherals are connected through proper earthing and stabilized power supply. • MCBs/ELCBs are installed to protect against electrical faults. • Power cables and sockets are periodically inspected for damage or loose connections. • Overloading of electrical points is strictly avoided. • All systems are properly shut down after use • Bags and personal belongings are placed in designated areas to avoid obstruction. • Noise levels are kept minimal to maintain a focused working environment. • Any malfunction or damage is immediately reported to the lab staff. • Fire extinguishers are available in or near the laboratory. • Emergency exit paths are clearly marked and unobstructed. • First-aid box is available in the department. • Emergency contact numbers are displayed on the notice board.
12	Design of Machine Elements	• Laboratory rules and safety instructions are clearly displayed in the laboratory. • Students are briefed about safe handling of tools, components, and instruments before experiments. • Entry into the laboratory is allowed only under faculty or lab staff supervision. • Students are required to follow discipline and standard operating procedures at all times. • Loose clothing, accessories, and improper footwear are discouraged • The laboratory is maintained in a clean and organized condition. • Oil spills, if any, are cleaned immediately to prevent slipping hazards. • Adequate lighting and ventilation are provided. • Walkways and workspaces are kept free from obstructions. • Fire extinguishers are placed at accessible locations. • Emergency exit routes are clearly marked. • A first-aid box is available in the laboratory. • Emergency contact numbers are displayed on the notice board. • Hand tools such as spanners, torque wrenches, screwdrivers, and measuring instruments are used only for their intended purpose. • Damaged or worn-out tools are immediately replaced or repaired. • Measuring instruments like vernier calipers, micrometers, and dial gauges are handled carefully to maintain accuracy and safety. • Tools are returned to their designated storage after use.
13	Manufacturing Technology	• Safety rules, Do's & Don'ts, and operating instructions are clearly displayed in the laboratory. • Students are allowed to work only under the supervision of faculty and technical staff. • Prior to experiments, students are briefed about process-specific hazards and precautions. • Loose clothing, jewelry, and long hair are strictly restricted during lab work. • Only authorized students are permitted to operate machines • Students are provided with and instructed to use: • Safety shoes • Aprons • Hand gloves • Safety goggles / face shields • All machines such as lathe, drilling, milling, grinding, and shaping machines are properly mounted and aligned. • Machine guards are provided for rotating and moving parts wherever possible. • Emergency ON/OFF switches are easily accessible. • Machines are operated only at recommended speeds and feeds. • Trial runs are conducted under staff guidance before actual operation. • Proper earthing is provided for all electrical machines. • MCBs / ELCBs are installed to prevent electrical hazards. • Electrical wiring is periodically inspected for insulation damage. • Wet hands or wet floors are strictly avoided near electrical equipment. • Hand tools are used only for their intended purpose. • Sharp tools and cutting instruments are handled carefully. • Oil spills and metal chips are cleaned immediately to prevent slipping. • Tools and components are returned to designated storage after use. • Fire extinguishers, sand buckets, and water buckets are placed at strategic locations. • Emergency exits are clearly marked and kept unobstructed. • A first-aid box is available in the laboratory. • Emergency contact numbers are displayed prominently.

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	0	13	14
2024-25(CAYm1)	360	18	0	19	21
2025-26(CAY)	360	18	0	20	22

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	1180000	510000	900000	820000	20600000	20590000	1000000	580000
Library	1200000	0	1200000	1200000	1000000	1000000	1100000	0
Laboratory equipment	23000000	1210000	24830000	2257000	34720000	34720000	6500000	400000
Teaching and non-teaching staff	72530000	59930000	71470000	64850000	55610000	47680000	27720000	27640000
Outreach Programs	0	0	720000	510000	1080000	610000	900000	650000
R&D	5000000	0	6000000	6000000	4020000	4020000	0	0
Training, Placement and	160000	90000	120000	60000	120000	60000	0	0
SDGs	50000	30000	17570000	17130000	14460000	13440000	27480000	27190000
Entrepreneurship	300000	270000	600000	480000	250000	200000	0	0
Others, specify	31510000	22840000	7110000	5820000	13660000	13660000	7270000	6170000
Total	134930000	84880000	130520000	99127000	145520000	135980000	71970000	62630000

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	0	0	34500000	34500000	0	0	0	0
Software	0	0	1000000	1000000	2000000	2000000	0	0
SDGs	0	0	1280000	1280000	0	0	0	0
Support for faculty	30000	30000	0	0	30000	30000	0	0
R & D	0	0	50000	44000	0	0	0	0

Industrial Training, Industry 	1200000	1200000	1200000	1200000	1200000	1200000	1200000	1200000
Miscellaneous Expenses* 	50000	50000	50000	50000	50000	50000	50000	50000
Total	1280000	1280000	38080000	38074000	3280000	3280000	1250000	1250000