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**: 1
Application No: 10907	**Date of Submission**: 25-07-2025

PART A- Profile of the Institute

A1.Name of the Institute: National Institute of Technology Manipur	
Year of Establishment : 2010	Location of the Institute: Langol Imphal795004 ManipurINDIA
A2. Institute Address:NIT Manipur, Langol, Imphal-795004, Manipur(INDIA) Dr. Kh. Manglem Singh	
City:Imphal East	State:Manipur
Pin Code:795004	Website:www.nitmanipur.ac.in
Email:nbanitmanipur@gmail.com	Phone No(with STD Code):0385-2058566
A3. Name and Address of the Affiliating University (if any):	
Name of the University : MHRD New Delhi	City:
State :	Pin Code: 795004
A4. Type of the Institution: NIT	
A5. Ownership Status: Central Government	

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

- No. of UG programs: **5**
- No. of PG programs: **7**

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	Civil Engineering	2013	--	Civil Engineering
2	Engineering & Technology	PG	Communication & Signal Processing	2022	--	Electronics and Communication Engineering
3	Engineering & Technology	UG	Computer Science and Engineering	2010	--	Computer Science and Engineering
4	Engineering & Technology	PG	Computer Science and Engineering	2014	--	Computer Science and Engineering
5	Engineering & Technology	UG	Electrical Engineering	2014	--	Electrical Engineering
6	Engineering & Technology	UG	Electronics & Communication Engineering	2010	--	Electronics and Communication Engineering
7	Engineering & Technology	PG	Environmental & Water Resource Engineering	2014	--	Civil Engineering
8	Engineering & Technology	UG	Mechanical Engineering	2013	--	Mechanical Engineering
9	Engineering & Technology	PG	Power System & Control	2014	--	Electrical Engineering
10	Engineering & Technology	PG	Structural Engineering	2022	--	Civil Engineering
11	Engineering & Technology	PG	Thermal & Fluid Engineering	2014	--	Mechanical Engineering
12	Engineering & Technology	PG	VLSI & Embedded Systems	2014	--	Electronics and Communication 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
Electronics and Communication Engineering	No	Electronics & Communication Engineering	UG
Civil Engineering	No	Civil Engineering	UG
Computer Science and Engineering	No	Computer Science and 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 ARROVAL DETAILS
1	Mechanical Engineering	UG	2013 / --	30	No	NA	30	2013	BoG Approved

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 :	Prabhat 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)	2024-25 (CAY)	2023-24 (CAYm1)	2022-23 (CAYm2)	2021-22 (CAYm3)	2020-21 (CAYm4)	2019-20 (CAYm5)	2018-19 (CAYm6)
N=Sanctioned intake of the program (as per AICTE /Competent authority)	30	30	30	30	30	30	30
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	22	24	27	25	23	21	27
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	7	4	4	3	0	0	0

Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	29	28	31	28	23	21	27

CAY= Current Academic Year. CAYm1= Current Academic Year Minus 1 CAYm2= Current Academic Year Minus 2. LYG= Last Year Graduate. LYGm1= Last Year Graduate Minus 1. LYGm2= Last Year Graduate Minus 2.

B4. Enrolment Ratio in the First Year

Table No. B4.1: Student enrolment ratio in the 1st year.

Year of entry	N (From Table 4.1)	N1 (From Table 4.1)	N4 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2024-25 (CAY)	30	22	7	96.67
2023-24 (CAYm1)	30	24	4	93.33
2022-23 (CAYm2)	30	27	4	103.33

Average [(ER1 + ER2 + ER3) / 3] = 97.78≡ 20.00

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

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

Item	(2020-21) LYG	(2019-20) LYGm1	(2018-19) LYGm2
A*= (No. of students admitted in the 1st year of that batch and those actually admitted in the 2nd year via lateral entry, plus the number of students admitted through multiple entry (if any) and separate division if applicable, minus the number of students who exited through multiple entry (if any).	30.00	30.00	30.00
B=No. of students who graduated from the program in the stipulated course duration	23.00	21.00	25.00
Success Rate (SR)= (B/A) * 100	76.67	70.00	83.33

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 76.67

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(2023-24)	CAYm2(2022-23)	CAYm3 (2021-22)
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)	7.09	7.58	8.26
Y=Total no. of successful students	28.00	31.00	27.00
Z=Total no. of students appeared in the examination	28.00	31.00	28.00
API [X*(Y/Z)]	7.09	7.58	7.96

Average API[(AP1+AP2+AP3)/3] : 7.54

B7: Academic Performance of the Second Year Students of the Program

Table No.B7.1: Academic Performance of the Second Year Students of the Program.

Academic Performance	CAYm1 (2023-24)	CAYm2 (2022-23)	CAYm3 (2021-22)
X=(Mean of 2nd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 2rd year/10)	7.72	7.98	8.40
Y=Total no. of successful students	31.00	27.00	23.00
Z=Total no. of students appeared in the examination	31.00	27.00	23.00
API [X * (Y/Z)]	7.72	7.98	8.40

Average API [(AP1 + AP2 + AP3)/3] : 8.03

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

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

Academic Performance	CAYm1 (2023-24)	CAYm2 (2022-23)	CAYm3 (2021-22)
X=(Mean of 3rd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 3rd year/10)	7.80	8.14	8.19
Y=Total no. of successful students	27.00	23.00	21.00
Z=Total no. of students appeared in the examination	27.00	23.00	21.00
API [X*(Y/Z)]:	7.80	8.14	8.19

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

B9. Placement, Higher Studies, and Entrepreneurship

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

Item	LYG (2020-21)	LYGm1(2019-20)	LYGm2(2018-19)
FS*=Total no. of final year students	30.00	30.00	30.00
X=No. of students placed	16.00	16.00	17.00
Y=No. of students admitted to higher studies	2.00	2.00	2.00
Z= No. of students taking up entrepreneurship	4.00	4.00	5.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	73.33	73.33	80.00

Average Placement Index = (P_1 + P_2 + P_3)/3: 75.55 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)	Currentl Associa (Y/N)
1	Rajesh Kumar Bhushan	XXXXXXX02B	Ph.D	SMVDU, Katra	Production Engineering	23/07/2020	5	Professor	Professor	23/07/2020	Regular	Yes
2	Huirem Neeranjan Singh	XXXXXXX50P	Ph.D	NIT Durgapur	Thermal Engineering	04/12/2013	11.7	Assistant Professor	Assistant Professor		Regular	Yes
3	Sabindra Kachhap	XXXXXXX02F	Ph.D	NIT Patna	Manufacturing Engineering	23/12/2019	5.7	Assistant Professor	Assistant Professor		Regular	Yes
4	Prabhat Kumar	XXXXXXX23B	Ph.D	IIT Guwahati	Machine Design	28/07/2014	10.11	Lecturer	Assistant Professor		Regular	Yes
5	Ashutosh Kumar Singh	XXXXXXX86Q	Ph.D	IIT Guwahati	Thermal Engineering	08/05/2016	9.2	Lecturer	Assistant Professor		Regular	Yes
6	Mrinal Bhowmik	XXXXXXX86N	Ph.D	IIT Guwahati	Thermal Engineering	12/03/2025	0.4	Assistant Professor	Assistant Professor		Regular	Yes
7	Moirangthem Dinachandra	XXXXXXX95L	Ph.D	IIT Madras	Computational Mechanics	07/03/2025	0.4	Assistant Professor	Assistant Professor		Regular	Yes
8	Shahnawaz Ahmed	XXXXXXX14D	Ph.D	IIT Guwahati	Thermal Engineering	10/03/2025	0.4	Assistant Professor	Assistant Professor		Regular	Yes
9	Anil Kumar Birru	XXXXXXX50L	Ph.D	IIT Roorkee	Manufacturing Engineering	30/10/2014	10.8	Assistant Professor	Associate Professor	21/11/2022	Regular	Yes
10	Khundrakpam Nimo Singh	XXXXXXX41P	Ph.D	JKG PTU, Jalandhar	Manufacturing Engineering	20/08/2014	10.4	Lecturer	Assistant Professor		Contractual Fulltime	No
11	Maibam Bindya Devi	XXXXXXX34G	Ph.D	NIT Manipur	Manufacturing Engineering	29/01/2015	9.11	Lecturer	Assistant Professor		Contractual Fulltime	No
12	Thokchom Subhaschandra Singh	XXXXXXX99M	Ph.D	NIT Manipur	Thermal Engineering	18/09/2015	9.3	Lecturer	Assistant Professor		Contractual Fulltime	No
13	Dushyant Singh	XXXXXXX95L	Ph.D	IIT Delhi	Thermal Engineering	27/10/2015	7.4	Assistant Professor	Associate Professor	21/11/2022	Regular	No
14	Tikendra Nath Verma	XXXXXXX76R	Ph.D	NIT Raipur	Thermal Engineering	16/09/2015	4.8	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 Department1

Table No.C2.1: Student-faculty ratio.

Description	**CAY(2024-25)**	**CAYm1 (2023-24)**	**CAYm2 (2022-23)**
UG1.B	30	30	30
UG1.C	30	30	30
UG1.D	30	30	30
UG1: Mechanical Engineering	**90**	**90**	**90**
PG1.A	15	15	15
PG1.B	15	15	15
PG1: Thermal & Fluid Engineering	**30**	**30**	**30**
DS=Total no. of students in all UG and PG programs in the Department	120	120	120
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=** 120	**S2=** 120	**S3=** 120
DF=Total no. of faculty members in the Department	6	9	9
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=** 6	**F2=** 9	**F3=** 9
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= 13.33**	**SFR3= 13.33**
Average SFR for 3 years	**SFR= 15.55**		

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)]**
2024-25(CAY)	6	0	5.00	30.00
2023-24(CAYm1)	8	1	5.00	42.00
2022-23(CAYm2)	8	1	5.00	42.00

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
2024-25	1.00	1.00	1.00	1.00	4.00	4.00
2023-24	1.00	1.00	1.00	1.00	4.00	4.00
2022-23	1.00	1.00	1.00	0.00	4.00	5.00
Average	RF1=1.00	AF1=1.00	RF2=1.00	AF2=0.67	RF2=4.00	AF2=4.33

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)

(CAYm2)

(CAYm3)

C6. Academic Research

Table No. C6.1: Faculty publication details.

S.No.	Item	2023-24 (CAYm1)	2022-23 (CAYm2)	2021-22 (CAYm3)
1	No. of peer reviewed journal papers published	37	20	22
2	No. of peer reviewed conference papers published	14	12	16
3	No. of books/book chapters published	7	7	10

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. Prabhat Kumar	Dr. Rajiv Tiwari, Dr. Manash Kumar Mishra	Mechanical Engineering	Development and Testing of a Novel Technique for Identification of Unbalance, Misalignment and Active Magnetic Bearing Parameters in Magnetically Levitated Rotor System	AR&DB (DRDO)	3 years	66.00
Dr. Anil Kumar Birru	Dr. Sameer (KITS Warangal), Prof. A. Kumar (NIT Warangal)	Mechanical Engineering	Mechanical properties and microstructural evaluation of underwater friction stir additive manufactured AA6082 Aluminium alloy	IIT Guwahati-Technology Innovation and Development Foundation, DST, Govt of India	2 years	8.00
						Amount received (Rs.):74.00

(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
Dr. Anil Kumar Birru	Amandeep Kaur, RIMS Imphal	Mechanical Engineering	Effect of thickness on retention, comfort & strength of 3D printed mouth-guard- A pilot study	RIMS-Imphal, Ministry of Health & Family Welfare, Govt. of India	1 year	2.00
						Amount received (Rs.):2.00

(CAYm3)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr. Dushyant Singh	NA	Mechanical Engineering	Novel cooling techniques for substrate exposed to very high temperature	Core Research Grant, (SERB) DST	3 years	47.00
Dr. Anil Kumar Birru	NA	Mechanical Engineering	The effect of bamboo leaf ash on fluidity of Al-Cu and AL-Mg cast alloy by using	TEQIP-III, NPIU-Govt. of India	1 year	1.25
						Amount received (Rs.):48.25

Total Amount (Lacs) Received for the Past 3 Years: 124.25

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 Workshop	1	Arc welding machine with fume exhauster, drilling machine, sheet	6 hours	O. Adeep Meit	Technical Assi	M.Tech., Diplo
2	Engineering Drawing	1	Solid models.	6 hours	Th. Lakshmi D	Technical Assi	M.Tech.
3	Strength of Material Laboratory	4	Computerised universal testing machine, digital Brinell hardness	6 hours	O. Adeep Meit	Technical Assi	M. Tech., M. T
4	Fluid Mechanics and Turbo Machinery Laboratory	4	Measurement of losses in pipe connection, measurement of static	6 hours	L. Birjit Singh	Technician	M. Tech.
5	Machine Drawing	1	Workstations with CAD (educational) softwares.	6 hours	L.Birjit Singh	Technician	M. Tech.

6	Mechanical Measurement Laboratory	4	Analog vernier caliper, digital vernier caliper, slip gauge, dial test indicator,	6 hours	Th. Lakshmi D	Technical Assi	M. Tech., Diplo
7	Manufacturing Technology I Laboratory	4	Lathe machine, shaper machine drilling machine, MIG welding	6 hours	L. Birjit Singh,	Technician, Te	M. Tech., Diplo
8	Dynamics of Machinery Laboratory	4	Motorized gyroscope, static and dyanmic balancing apparatus,	6 hours	T. Satyajit Sing	Technician	M. Tech.
9	Thermal Engineering Laboratory	4	Multi-fuel variable compression ratio IC engine, Testo 350 flue gas	6 hours	T. Satyajit Sing	Technician	M. Tech.
10	Heat and Mass Transfer Laboratory	4	Test unit for heat transfer in forced convection, test unit thermal	6 hours	Th. Lakshmi D	Technical Assi	M. Tech., M. T
11	Mechatronics Laboratory	4	Process control trainer, transducer & instrumentation trainer, intereactive	6 hours	O. Adeep Meit	Technical Assi	M. Tech., M. T
12	Manufacturing Technology II Laboratory	4	Horizontal milling machine, drilling machine, gear hobbing machine,	6 hours	L. Birjit Singh,	Technician, Te	M. Tech., Diplo
13	Automobile Engineering Laboratory	4	Section petrol engine trainer, section diesel engine trainer, section manual	6 hours	L. Birjit Singh	Technician	M. Tech.
14	CAD/CAM Laboratory	4	Workstations with computer aided designing and manufacturing	6 hours	T. Satyajit Sing	Technician	M. Tech.

D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures
1	Engineering Workshop	First aid box, face shields, safety goggles, heat resistant gloves, laboratory aprons. machine guards, fume extraction, fire safety, proper ventilation.
2	Strength of Materials Laboratory	First aid box, safety goggles, safety gloves, laboratory aprons, secure samples, and machine interlocks.
3	Fluid Mechanics Laboratory	First aid box, safety goggles, laboratory aprons, safety gloves.
4	Mechanical Measurement Laboratory	First aid box, tool handling, safe storage.
5	Manufacturing Technology I Laboratory	First aid box, fire safety, face shields, safety goggles, laboratory aprons, heat-resistant gloves, machine guards, gas safety, welding shields, fume extraction, proper ventilation.
6	Dynamics of Machinery Laboratory	First aid box, safety instructions chart, safety goggles, laboratory aprons, safety fabric gloves, rotating guards.
7	Thermal Engineering Laboratory	First aid box, fire safety, safety goggles, laboratory aprons, heat-resistant gloves, high-pressure awareness, proper ventilation.
8	Heat and Mass Transfer Laboratory	First aid box, safety goggles, laboratory aprons, heat-resistant gloves, proper ventilation.

9	Mechatronics Laboratory	First aid box.
10	Manufacturing Technology II Laboratory	First aid box, fire safety, safety goggles, laboratory aprons, safety gloves.
11	Automobile Engineering Laboratory	First aid box, fire safety, safety goggles, laboratory aprons, safety gloves.
12	CAD/CAM Laboratory	First aid box, ergonomic workstations, cable management, and electrical safety.
13	Machine Drawing (CAD)	First aid box, ergonomic workstations, cable management, and electrical safety.

D3. Project Laboratory/Research Laboratory

Department has established a) Project laboratory and b) Centre of Excellence for cooloborative learning and Innovation in assoication with TATA Technologies.

a) **Project Laboratory**: This was established to execute the undergraduate and post graduate projects in the domains of Thermal, Fluid testing, manufacturing and Design. In addition, this lab was also used for executing various reserach projects sanctioned from sponsoring agencies. The equipments purchased under the proejcts are also commissioned in this laboratory for use during free times.

b) **Colloborative learning and Innovation centre**: Tata Technologies provided hardware along with training and manpower to train the students and staff. This facility was catered to some of the project students and research students.

In addition, the Department got FIST project with funding of approximately Rs 1 Crore grant to set up domain laboratory in the filed of Manufacturing and Design for students and staff in the year 2024-25.

PART E: First Year faculty and financial Resources

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

E1. First Year Student-Faculty Ratio (FYSFR)

Table No. E1.1: FYSFR details.

Year	Sanctioned intake of all UG programs (S4)	No. of required faculty (RF4= S4/20)	No. of faculty members in Basic Science Courses & Humanities and Social Sciences including Management courses (NS1)	No. of faculty members in Engineering Science Courses (NS2)	Percentage= No. of faculty members ((NS1*0.8) + (NS2*0.2))/(No. of required faculty (RF4)); Percentage= ((NS1*0.8) + (NS2*0.2))/RF
2022-23(CAYm2)	30	2	12	4	520
2023-24(CAYm1)	30	2	13	5	570
2024-25(CAY)	30	2	14	7	630

E2. Budget Allocation, Utilization, and Public Accounting at Institute Level

Table No. E2.1: Budget and actual expenditure incurred at Institute level.

Items	Budgeted in 2024-2025	Actual Expenses in 2024-2025 till	Budgeted in 2023-2024	Actual Expenses in 2023-2024 till	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till	Budgeted in 2021-2022	Actual Expenses in 2021-2022 till
Infrastructure Built-Up	13926794	13015695	9731860	9095196	7723205	7217949	5097581	4764094
Library	0	0	0	0	0	0	0	0

Laboratory equipment	2070000	2068136	1230000	1221377	660000	655196	180000	178648
Teaching and non-teaching staff salary	149774808	146838047	123543035	121120623	107348540	105243667	93281864	91452808
Outreach Programs	435000	415690	3350000	3328043	3200000	3161529	8700000	8698971
R&D	76893488	74653872	73327228	71191483	58372811	56672632	48168353	46765391
Training, Placement and Industry	3317936	3252878	2072378	2031743	2153731	2111501	1174094	1151073
SDGs	2000000	1893957	0	0	0	0	0	0
Entrepreneurship	0	0	0	0	0	0	0	0
Others, specify	1050000	1026121	3000000	2550731	3500000	3110228	500000	483730
Total	**249468026**	**243164396**	**216254501**	**210539196**	**182958287**	**178172702**	**157101892**	**153494715**

E3. Budget Allocation, Utilization, and Public Accounting at Program Specific Level

Table No. E3.1: Budget and actual expenditure incurred at program level.

Items	**Budgeted in 2024-2025**	**Actual Expenses in 2024-2025 till**	**Budgeted in 2023-2024**	**Actual Expenses in 2023-2024 till**	**Budgeted in 2022-2023**	**Actual Expenses in 2022-2023 till**	**Budgeted in 2021-2022**	**Actual Expenses in 2021-2022 till**
Laboratory equipment	2715725	2538061	1897713	1773563	1506025	1407500	994028	928998
Software	407359	380709	284657	266034	225904	211125	149104	139350
SDGs	390000	369322	0	0	0	0	0	0
Support for faculty development	29206088	28633419	24090892	23618521	20932965	20522515	18189963	17833298
R & D	14994230	14557505	14298809	13882339	11382698	11051163	9392829	9119251
Industrial Training, Industry expert,	646998	634311	404114	396190	419978	411743	228948	224459
Miscellaneous Expenses*	204750	200094	1170000	1142643	1228500	1222993	165750	1649054
Total	**48565150**	**47313421**	**42146185**	**41079290**	**35696070**	**34827039**	**29120622**	**29894410**