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: 11657	**Date of Submission**: 02-03-2026

PART A- Profile of the Institute

A1.Name of the Institute: GRT INSTITUTE OF ENGINEERING AND TECHNOLOGY	
Year of Establishment : 2008	Location of the Institute: Tiruttani
A2. Institute Address:GRT MAHALAKSHMI NAGAR CHENNAI - TIRUPATHI HIGH WAY TIRUTTANI - 631 209	
City:Tiruvallur	State:Tamil Nadu
Pin Code:631209	Website:www.grt.edu.in
Email:arumugam.s@grt.edu.in	Phone No(with STD Code):044-27887011
A3. Name and Address of the Affiliating University (if any):	
Name of the University : ANNA UNIVERSITY	City:
State :	Pin Code: 0
A4. Type of the Institution: Self-Supported Institute	
A5. Ownership Status: Self financing	

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

- No. of UG programs: **7**
- No. of PG programs: **1**

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

Sr.No.	Discipline	Level of program	Name of the program	Year of Start	Year of Closed	Name of The Department
1	Engineering & Technology	UG	Artificial Intelligence and Data Science	2022	--	Artificial Intelligence and Data Science
2	Engineering & Technology	UG	Biomedical Engineering	2014	--	Biomedical Engineering
3	Engineering & Technology	UG	Computer Science and Engineering	2008	--	Computer Science and Engineering
4	Engineering & Technology	UG	Electrical and Electronics Engineering	2008	--	Electrical and Electronics Engineering
5	Engineering & Technology	UG	Electronics & Communication Engineering	2008	--	Electronics and Communication Engineering
6	Engineering & Technology	UG	Information Technology	2024	--	Information Technology
7	Engineering & Technology	UG	Mechanical Engineering	2009	--	Mechanical Engineering
8	Management	PG	Master of Business Administration	2009	--	Management

A7. Programs to be considered for Accreditation vide this Application:

Table No. A7.1: List of programs to be considered for accreditation.

Name of the Department	Having Allied Departments	Name of the Program	Program Level
Electronics and Communication Engineering	Yes	Electronics & Communication Engineering	UG
Biomedical Engineering	Yes	Biomedical Engineering	UG
Computer Science and Engineering	Yes	Computer Science and Engineering	UG
Mechanical Engineering	No	Mechanical Engineering	UG
Electrical and Electronics Engineering	No	Electrical and Electronics 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	ACCREDITATION STATUS	FROM	TO	NO. OF TIMES PROGRAM ACCREDITED	PROGRAM DURATION
1	Mechanical Engineering	UG	2009 / --	60	Yes	2023	30	2023	F.No. Southern/1-36255918696/2023/EOA	Applying first time	--	--	0	4

Sanctioned Intake for Last Five Years for the Mechanical Engineering	
Academic Year	**Sanctioned Intake**
2025-26	30
2024-25	30
2023-24	30
2022-23	60
2021-22	60
2020-21	60

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. N. E. EDWIN PAUL
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)	30	30	30	60	60	60	120
N1=Total no. of students admitted in the 1st year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program	20	9	13	16	18	17	29
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	3	1	4	7	9	3
N3=Separate division if any	0	0	0	0	1	0	1
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.	20	12	14	20	26	26	33

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)	30	20	0	66.67
2024-25 (CAYm1)	30	9	0	30.00
2023-24 (CAYm2)	30	13	0	43.33

Average [(ER1 + ER2 + ER3) / 3] = 46.67≡ 5.00

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

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

Item	(2021-22) LYG	(2020-21) LYGm1	(2019-20) LYGm2
A*= (No. of students admitted in the 1st year of that batch and those actually admitted in the 2nd year via lateral entry, plus the number of students admitted through multiple entry (if any) and separate division if applicable, minus the number of students who exited through multiple entry (if any).	67.00	69.00	123.00
B=No. of students who graduated from the program in the stipulated course duration	23.00	24.00	30.00
Success Rate (SR)= (B/A) * 100	34.33	34.78	24.39

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 31.17

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)	7.47	7.54	7.96
Y=Total no. of successful students	9.00	12.00	16.00
Z=Total no. of students appeared in the examination	9.00	13.00	16.00

API [X*(Y/Z)]	7.47	6.96	7.96

Average API[(AP1+AP2+AP3)/3] : 7.46

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)	7.60	7.75	7.69
Y=Total no. of successful students	11.00	19.00	23.00
Z=Total no. of students appeared in the examination	13.00	20.00	24.00
API [X * (Y/Z)]	6.43	7.36	7.37

Average API [(AP1 + AP2 + AP3)/3] : 7.05

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)	7.63	7.82	8.03
Y=Total no. of successful students	19.00	23.00	24.00
Z=Total no. of students appeared in the examination	19.00	23.00	25.00
API [X*(Y/Z)]:	7.63	7.82	7.71

Average API [(AP1 + AP2 + AP3)/3] : 7.72

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	67.00	69.00	123.00
X=No. of students placed	22.00	24.00	30.00
Y=No. of students admitted to higher studies	1.00	0.00	0.00
Z= No. of students taking up entrepreneurship	0.00	0.00	0.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	34.33	34.78	24.39

Average Placement Index = (P_1 + P_2 + P_3)/3: 31.17 Placement Index Points:

PART C: Faculty Details in Department and Allied Departments

(Data to be filled in for the Department and Allied Departments)

C1. Faculty details of Department and Allied Departments

Table No.C1: Faculty details in the Department for the past 3 years including CAY

Sr.No	Name of the Faculty	PAN No.	Highest degree	University	Area of Specialization	Date of Joining in this Institution	Experience in years in current institute	Designation at Time Joining in this Institution	Present Designation	The date on which Designated as Professor/ Associate Professor if any	Nature of Association (Regular/ Contract/ Ad hoc)	Currently Associated (Y/N)	In case of NO, Date of Leaving	IS HOD?
1	Dr. N. E. EDWIN PAUL	XXXXXXX99D	Ph.D	Bharath Institute of Higher Education and Research	Thermal Engineering	02/08/2012	13.6	Assistant Professor	Professor	06/09/2021	Regular	Yes		Yes
2	Dr. S. DHILEEPAN	XXXXXXX21M	Ph.D	Anna University	I C Engine	23/06/2014	11.8	Assistant Professor	Associate Professor	06/01/2025	Regular	Yes		No
3	SATHIYA G. K.	XXXXXXX26Q	M.E.	Anna University	Engineering Design	21/06/2012	13.8	Assistant Professor	Assistant Professor		Regular	Yes		No
4	VASANTH A	XXXXXXX16L	M.Tech	SRM University	Computer integrated Manufacturing	21/08/2013	12.6	Assistant Professor	Assistant Professor		Regular	Yes		No
5	ANIL BASHA K	XXXXXXX74J	M.Tech	JNTU, ANANTHAPURAMU	CAD/CAM	01/08/2013	12.6	Assistant Professor	Assistant Professor		Regular	Yes		No
6	PURUSHOTHAMAN G	XXXXXXX88N	M.E.	Anna University	Computer integrated Manufacturing	23/06/2014	11.8	Assistant Professor	Assistant Professor		Regular	Yes		No
7	GURUMOORTHY S	XXXXXXX41M	M.E.	Anna University	Manufacturing Technology	10/02/2021	5	Assistant Professor	Assistant Professor		Regular	Yes		No
8	PRAVEENRAJAN P	XXXXXXX09A	M.E.	Anna University	Thermal Engineering	23/08/2021	4.6	Assistant Professor	Assistant Professor		Regular	Yes		No
9	Dr. R. VIJAYAKUMAR	XXXXXXX64K	Ph.D	Anna University	Production	24/06/2013	12.8	Assistant Professor	Assistant Professor		Regular	Yes		No
10	R MOHAN RAJ	XXXXXXX59G	M.E.	Anna University	Computer integrated Manufacturing	07/08/2013	12.6	Assistant Professor	Assistant Professor		Regular	Yes		No
11	IMMANUVEL Y	XXXXXXX10N	M.E.	Anna University	Engineering Design	23/08/2021	4.6	Assistant Professor	Assistant Professor		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 Department0

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

Description	**CAY(2025-26)**	**CAYm1 (2024-25)**	**CAYm2 (2023-24)**
UG1.B	33	31	64
UG1.C	31	64	66
UG1.D	64	66	66
UG1: Mechanical Engineering	**128**	**161**	**196**
DS=Total no. of students in all UG and PG programs in the Department	128	161	196
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=** 128	**S2=** 161	**S3=** 196
DF=Total no. of faculty members in the Department	11	11	11
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=** 11	**F2=** 11	**F3=** 11
FF=The faculty members in F who have a 100% teaching load in the first-year courses	2	2	2
Student Faculty Ratio (SFR)=S/(F-FF)	**SFR1= 14.22**	**SFR2= 17.89**	**SFR3= 21.78**
Average SFR for 3 years	**SFR= 17.96**		

C3. Faculty Qualification

- Faculty qualification index (FQI) = 2.5 * [(10X +4Y)/RF] where
- X=No. of faculty members with Ph.D. degree or equivalent as per AICTE/UGC norms.
- Y=No. of faculty members with M. Tech. or ME degree or equivalent as per AICTE/ UGC norms.
- RF=No. of required faculty in the Department including allied Departments to adhere to the 20:1 Student-Faculty ratio, with calculations based on both student numbers and faculty requirements as per section C2 of this documents: (RF=S/20).

Table No.C3.1: Faculty qualification.

Year	**X**	**Y**	**RF**	**FQ = 2.5 x [(10X + 4Y) / RF)]**
2025-26(CAY)	3	8	6.00	25.83
2024-25(CAYm1)	2	9	8.00	17.50
2023-24(CAYm2)	2	9	9.00	15.56

C4. Faculty Cadre Proportion

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

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

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

Year	Professors		Associate Professors		Assistant Professors	
	Required RF1	Available AF1	Required RF2	Available AF1	Required RF3	Available AF3
2025-26	1.00	1.00	1.00	1.00	4.00	9.00
2024-25	1.00	1.00	1.00	0.00	5.00	10.00
2023-24	1.00	1.00	2.00	0.00	6.00	10.00
Average	RF1=1.00	AF1=1.00	RF2=1.33	AF2=0.33	RF2=5.00	AF2=9.67

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.Vignesh J	Senior Engineer	Wooyoung Automotive India Pvt Limited, Chennai	Power Generation Equipment Design	28.00
2	Mr.Vignesh J	Senior Engineer	Wooyoung Automotive India Pvt Limited, Chennai	Production Planning and control	30.00

(CAYm2)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr. R Manikandan	Director operation	Lakshika India Auto Technologies, Villupuram	Power Plant Engineering	30.00
2	Mr. R Manikandan	Director operation	Lakshika India Auto Technologies, Villupuram	RENEWABLE POWERED OFF HIGHWAY VEHICLES AND EMISSION CONTROL TECHNOLOGY	30.00

(CAYm3)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr.V.P.Yuvaraj	Senior Engineer	Engine Mount Systems-CHASSIS Renault Nissan Technology & Business Centre India Private Limited, Chen	Computer Aided Design and Manufacturing	30.00
2	Mr.V.P.Yuvaraj	Senior Engineer	Engine Mount Systems-CHASSIS Renault Nissan Technology & Business Centre India Private Limited, Chen	Design of Mechine Elements	30.00

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	5	8
2	No. of peer reviewed conference papers published	0	1	1
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)

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. N. E. Edwin Paul	Effect of friction stir spot welding parameters on the shear fracture	1 year	0.35	0.35	Journal Published
Dr. N. E. Edwin Paul	Optimization of heat-treated silicon nitride additive parameters	6 Months	0.31	0.31	Journal Published
Dr. S. Dhileepan	Performance Studies on Exhaust Gas Recirculation diesel engine	6 Months	0.32	0.32	Journal Published
Dr. S. Dhileepan	Optimization of CRDI engine operating parameters using RSM	1 year	0.29	0.29	Journal Published
Dr. R. Vijayakumar	Surface and Erosion Behavior Investigation on IN625 Superalloy	6 Months	0.33	0.33	Journal Published
Dr. R. Vijayakumar	An in-depth investigation on kerfangle in pierced hole oninconel-625 superalloy	1 year	0.35	0.35	Journal Published
Mr. K. Anilbasha	Experimental and optimization-based analysis to maximize mechanical-related	6 Months	0.35	0.35	Journal Published
Mr. G. K. Sathiya	Advancements and challenges in additive manufacturing of 3d printed polymer composites	6 Months	0.10	0.10	Patent Published
Mr. A. Vasanth	Optimization of welding parameters of AISI 431 1020 Joints	6 Months	0.10	0.10	Patent Published
			Amount received (Rs.): 2.50		

(CAYm2)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
Dr. N. E. Edwin Paul	Study on mechanical, thermal and morphology behaviour of sisal/bentonite	1 year	0.30	0.30	Journal Published
Dr. S. Dhileepan	Influence of ethanol blended diesel enriched with hydroxy gas	6 Months	0.33	0.33	Journal Published
Dr. R. Vijayakumar	Investigation of surface characteristics in precision hole machining	6 Months	0.32	0.32	Journal Published
Dr. R. Vijayakumar	Investigation on hybrid fiber metal laminate	1 year	0.30	0.30	Journal Published
Mr. K. Anilbasha	Impact of tool-related parameters	6 Months	0.35	0.35	Journal Published
			Amount received (Rs.): 1.60		

(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. N. E. Edwin Paul	Hard machining of P235GH steel with different Parameters using GSRS Modeling	6 Months	0.25	0.25	Journal Published
Dr. N. E. Edwin Paul	Synthesis and characterization of cardanol oil and cassava tuber peel	1 year	0.24	0.24	Journal Published
Dr. N. E. Edwin Paul	Development of new clone cloud framework and adaptive scheduling	6 Months	0.10	0.10	Patent Published
Dr. N. E. Edwin Paul	Detecting Diabetes Mellitus from Tongue Image Hybrid	6 Months	0.27	0.27	Conference Paper Published
Dr. R. Vijayakumar	Investigation in μ-WEDM of Inconel 625 superalloy using RSM-CCD technique	1 year	0.25	0.25	Journal Published
Dr. R. Vijayakumar	Investigation in ufv-¹ wedm parameters of ni-cr space alloy	6 Months	0.28	0.28	Journal Published
Dr. R. Vijayakumar	Investigation of Abrasive Aqua Jet Hole Making (AAJHM) parameters	6 Months	0.27	0.27	Journal Published
Dr. R. Vijayakumar	Investigation on Metal Hybrid Fibres Laminate (MHFL)	6 Months	0.27	0.27	Journal Published
Mr. K. Anilbasha	Examination of Microstructural Transformations and Tensile Attributes	1 year	0.24	0.24	Journal Published
Mr. A. Vasanth	Effect of Inlet Air Temperature on HCCI Engine	6 Months	0.23	0.23	Journal Published
			Amount received (Rs.): 2.40		

Total amount (Lacs) received for the past 3 years : 6.50

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 Lab	30	1.Fitting Trade Tools 2.Carpentry Trade Tools 3.Arc welding transformer with cables and holders 4.Centre	38	Mr.H.Baskar	Lab Technician	Diploma in Mechanical
2	Fluid mechanics and machinery Lab	30	1.Orifice meter setup 2.Venturi meter setup 3.Rotameter setup 4.Pipe Flow analysis setup 5.Centrifugal pump	3	Mr.H.Baskar	Lab Technician	Diploma in Mechanical
3	Manufacturing Processes Lab	30	1.Centre Lathes 2.Arc welding transformer with cables and holders 3.Moulding table, Moulding equipments	3	Mr.H. Baskar	Lab Technician	Diploma in Mechanical
4	ManufacturingTechnology Lab	30	1.Turret and Capstan Lathes 2.Planning Machine 3.Surface Grinding Machine 4.Cylindrical Grinding	3	Mr.N.Moorthy	Lab Technician	Diploma in Mechanical
5	Strength of Materials Lab	30	1.Universal Tensile Testing machine 2.Torsion Testing Machine 3.Impact Testing Machine 4.Brinell Hardness	3	Mr.K.Tamil selvan	Lab Technician	Diploma in Mechanical

6	Computer Aided Machine Drawing Lab and CAD/CAM Lab	30	1.30 desktop computers 2.Software's: a)Auto-Cad b)ANSYS c)CATIA Solid Works d)CNC	3	Mr.N.Moorthy	Lab Technician	Diploma in Mechanical
7	Thermal Engineering Lab	30	1.C Engine – 2 stroke and 4 stroke model 2.Apparatus for Flash and Fire Point 3.4-stroke Diesel Engine with	3	Mr.N.Moorthy	Lab Technician	Diploma in Mechanical
8	Dynamics Lab	30	1.Cam follower setup 2.Compound Pendulum System 3.Flywheel Apparatus. 4.Motorised gyroscope.	3	Mr.K.Tamil selvan	Lab Technician	Diploma in Mechanical
9	Metrology and Measurements Lab	30	1.Micrometer 2. Vernier Caliper 3.Vernier Height, bore and depth Gauge 4.Slip Gauge Set 5.Gear Tooth Vernier	3	Mr.K.Tamil selvan	Lab Technician	Diploma in Mechanical
10	Heat Transfer Lab	30	1.Emissivity Measurement Apparatus 2.Heat Transfer Through Composite Wall Slab Apparatus 3.Heat Transfer	3	Mr.K.Tamil selvan	Lab Technician	Diploma in Mechanical
11	Mechatronics Lab	30	1.Basic Pneumatic Trainer Kit with manual and electrical controls/ PLC Control each 2. Basic Hydraulic Trainer Kit	3	Mr.H.Baskar	Lab Technician	Diploma in Mechanical

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 Lab	1.Students wear lab aprons and safety shoes 2.First aid box and Fire extinguisher are kept in the laboratory Electric wires are properly insulated. 3.Electric wires are properly insulated. 4.Leather gloves are provided for safety. 5.Loose clothing and jewelers are prohibited; long hair must be secured in buns to prevent entanglement. 6.Rubber mats are available in the lab. 7.General rules of conduct are displayed. 8.MCB boards are fixed to avoid overloading and short- circuiting in the lab. 9.Proper Earthing is done for Electrical safety.
2	Fluid mechanics and machinery Lab	1.Wear lab coat, safety shoes, and protective goggles. 2.Avoid loose clothing, jewelry, or long hair near rotating machines. 3.Tie long hair properly. 4.Do not run or play inside the laboratory. 5.Check pumps, turbines, and pipes for leaks before starting the experiment. 6.Ensure proper alignment of rotating parts. 7.Do not touch moving parts like shafts, belts, or couplings while machines are running. 8.Start equipment only with the instructor's permission. 9.Make sure hands are dry before operating switches.
3	Manufacturing Processes Lab	1.Wear lab coat, safety shoes, and protective goggles. 2.Avoid loose clothing, jewelry, or long hair near rotating machines. 3.Tie long hair properly. 4.Do not run or play inside the laboratory. 5.Operate machines only with instructor's permission. 6.Ensure machine guards are in place before starting. 7.Keep hands away from cutting tools and moving parts. 8.Stop the machine before measuring or adjusting the workpiece. 9.Maintain safe distance from furnaces, welding arcs, and molten metal. 10.Clean oil or coolant spills immediately to prevent slipping.
4	Manufacturing Technology Lab	1.Wear proper personal protective equipment (PPE) such as safety goggles, gloves, lab coat, and safety shoes. 2. Do not operate lathe, drilling, milling, or grinding machines without the instructor's permission. 3. Ensure all machine guards and safety covers are properly fixed before starting the machine. 4. Avoid loose clothing, jewellery, and untied long hair near rotating machines. 5. Keep hands away from moving or rotating parts of the machine. 6. Stop the machine before measuring, cleaning, or adjusting the workpiece. 7. Use the correct tools and equipment for each operation. 8.Keep the work area clean and free from metal chips, oil, and scrap materials. 9.Do not touch electrical switches with wet hands. 10.Report any accident, unusual noise, or machine fault immediately to the instructor.
5	Strength of Materials Lab	1.Wear personal protective equipment (PPE) such as safety goggles, lab coat, and safety shoes. 2. Operate testing machines (UTM, impact tester, hardness tester, torsion tester) only with the instructor's permission. 3. Ensure the specimen is properly fixed before starting the test. 4. Do not stand too close to the specimen during testing, as it may suddenly break. 5. Apply load gradually and do not exceed the specified limits. 6. Keep hands away from moving or rotating parts of the machines. 7. Do not touch the machine with wet hands, especially near electrical switches. 8.Keep the work area clean and free from broken pieces or tools. 9. Switch off the machine after completing the experiment. 10.Report any machine malfunction or accident immediately to the instructor.

6	Computer Aided Machine Drawing Lab & CAD / CAM Lab	1. Enter the lab only with the instructor's permission and follow all instructions. 2. Handle computers, keyboards, and mouse carefully; do not hit or misuse them. 3.Do not touch electrical cables or sockets with wet hands. 4.Avoid eating or drinking near computers to prevent damage. 5. Sit in the proper posture while working to avoid strain on eyes and back. 6. Do not install or delete software without permission. 7. Save your work regularly and log out properly after finishing. 8. Keep the lab clean and maintain silence. 9. Do not change system settings or hardware connections. 10. Report any system problem or damage to the instructor immediately.
7	Thermal Engineering Lab	1.Wear personal protective equipment (PPE) such as safety goggles, gloves, and lab coat. 2.Operate boilers, engines, and thermal equipment only with the instructor's permission. 3.Be careful when working with high temperature surfaces and steam lines to avoid burns. 4. Check fuel supply, water level, and pressure gauges before starting the experiment. 5. Do not touch hot parts of engines, boilers, or heaters while the equipment is running. 6. Ensure proper ventilation when working with fuels or exhaust gases. 7. Handle valves and pressure controls slowly and carefully. 8.Keep the lab area clean and free from oil or fuel spills. 9. Turn off fuel supply and electrical power after completing the experiment. 10.Report any leakage, unusual noise, or accident immediately to the instructor.
8	Dynamics Lab	1. Wear proper personal protective equipment (PPE) such as safety goggles and safety shoes. 2. Perform experiments only with the instructor's guidance or permission. 3. Ensure all apparatus and instruments are properly fixed and aligned before starting the experiment. 4. Keep hands away from moving or rotating parts of the equipment. 5. Handle weights, springs, and rotating components carefully. 6. Do not apply excess load or force beyond the specified limits of the apparatus. 7. Keep the work area clean and organized to avoid accidents. 8. Do not touch electrical switches or equipment with wet hands. 9. Stop the apparatus before making adjustments or measurements. 10.Report any damage, malfunction, or accident immediately to the instructor.
9	Metrology and Measurements Lab	1.Wear proper personal protective equipment (PPE) such as safety shoes and lab coat. 2.Handle precision instruments like vernier calliper, micrometre, and dial gauge carefully. 3.Keep measuring instruments clean and free from dust or oil before use. 4.Do not drop or mishandle sensitive instruments, as it may affect their accuracy. 5.Use the correct measuring instrument for the required measurement. 6.Avoid applying excess force while taking measurements. 7.Return all instruments to their proper place after use. 8.Keep the workbench clean and organized. 9.Do not use damaged or faulty instruments. 10.Report any instrument damage or malfunction to the instructor immediately.
10	Heat Transfer Lab	1.Wear personal protective equipment (PPE) such as safety goggles, gloves, and lab coat. 2.Be careful while working with high-temperature equipment like heaters, furnaces, and hot plates. 3.Do not touch hot surfaces, pipes, or heaters during or immediately after the experiment. 4.Ensure proper insulation and connections before switching on the equipment. 5.Check water flow and cooling systems before starting the experiment. 6.Operate electrical equipment only with dry hands. 7.Do not exceed the specified temperature or voltage limits of the apparatus. 8.Keep the lab area clean and free from water or oil spills. 9.Switch off the power supply after completing the experiment. 10.Report any equipment malfunction, leakage, or accident immediately to the instructor.
11	Mechatronics Lab	1.Wear personal protective equipment (PPE) such as safety goggles, gloves, and safety shoes. 2.Operate electrical, mechanical, and robotic systems only with the instructor's permission. 3.Keep hands, hair, and clothing away from moving parts of motors, actuators, and conveyors. 4.Ensure all power supplies are off before connecting or disconnecting circuits. 5.Handle sensors, microcontrollers, and electronic components carefully to avoid damage. 6.Do not modify wiring or equipment setup without permission. 7.Keep the work area clean and free from loose tools, wires, or debris. 8.Avoid water or liquids near electronic equipment. 9.Shut down all equipment and disconnect the power supply after experiments. 10.Report any malfunction, unusual noise, or accident immediately to the instructor.

D3. Project Laboratory/Research Laboratory

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	15	4	71
2024-25(CAYm1)	450	22	17	6	67
2025-26(CAY)	450	22	19	3	72

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	240	236.68	175	168.96	40	35.94	20	18.13
Library	10	8.03	10	9.29	10	8.08	4	3
Laboratory equipment	425	414.24	12	10.31	40	38.90	125	123.35
Teaching and non-teaching staff salary	975	949.92	800	752.34	650	630.09	650	601.34
Outreach Programs	2	1.07	4	3.77	3.50	2.06	7	6.33
R&D	14	13.56	13	12.09	10	9.30	13	12.07
Training, Placement and Industry linkage	35	33.10	25	22.87	15	13.63	10	8.34
SDGs	55	52.06	60	58.59	80	75.45	85	79.99
Entrepreneurship	1	0.31	1	0.38	1.50	0.45	1	0.40
Others, specify	920	908.88	850	832.80	700	678.12	500	457.36
Total	**2677**	**2617.85**	**1950**	**1871.40**	**1550.00**	**1492.02**	**1415**	**1310.31**

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	3650000	3545000	10000	0	10000	0	90000	86149

Software	25000	14743	15000	11083	15000	9138	25000	21486
SDGs	75000	50000	10000	0	30000	27500	15000	10000
Support for faculty development	175000	162000	170000	160000	160000	158000	170000	157000
R & D	270000	252600	275000	260000	170000	160000	250000	250000
Industrial Training, Industry expert, Internship	150000	126075	90000	86884	75000	72445	50000	43626
Miscellaneous Expenses*	25000	17284	30000	28172	80000	76649	100000	78764
Total	**4370000**	**4167702**	**600000**	**546139**	**540000**	**503732**	**700000**	**647025**