

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 : 10459	Date of Submission : 27-03-2025

PART A- Profile of the Institute

A1.Name of the Institute: K RAMAKRISHNAN COLLEGE OF ENGINEERING	
Year of Establishment : 2008	Location of the Institute: NH45, SAMAYAPURAM, TIRUCHIRAPPALLI
A2. Institute Address: K.Ramakrishnan College of Engineering, Kariyamanikam Road, Samayapuram, Trichy – 621112, Tamilnadu, India.	
City:Tiruchirappalli	State:Tamil Nadu
Pin Code:621112	Website:www.krce.ac.in
Email:principal@krce.ac.in	Phone No(with STD Code):0431-2670699
A3. Name and Address of the Affiliating University (if any):	
Name of the University : ANNA UNIVERSITY	City: Chennai
State : Tamil Nadu	Pin Code: 600025
A4. Type of the Institution: Self-Supported Institute	
A5. Ownership Status: Self financing	

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

- No. of UG programs: 8
- No. of PG programs: 5

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

Sr.No.	Discipline	Level of program	Name of the program	Year of Start	Year of Closed	Name of The Department
1	Engineering & Technology	UG	Artificial Intelligence and Data Science	2020	--	Computer Science and Engineering
2	Engineering & Technology	PG	Communication Systems	2011	--	Electronics and Communication Engineering
3	Engineering & Technology	UG	Computer Science and Business System	2020	--	Computer Science and Engineering
4	Engineering & Technology	PG	Computer Science and Engineering	2013	--	Computer Science and Engineering
5	Engineering & Technology	UG	Computer Science and Engineering	2008	--	Computer Science and Engineering
6	Engineering & Technology	UG	Computer Science and Engineering (Artificial Intelligence & Machine Learning)	2021	--	Computer Science and Engineering
7	Engineering & Technology	UG	Electrical & Electronics Engineering	2008	--	Electrical and Electronics Engineering
8	Engineering & Technology	UG	Electronics & Communication Engineering	2008	--	Electronics and Communication Engineering
9	Engineering & Technology	PG	Engineering Design	2012	--	Mechanical Engineering
10	Engineering & Technology	UG	Information Technology	2020	--	Computer Science and Engineering
11	Engineering & Technology	UG	Mechanical Engineering	2008	--	Mechanical Engineering
12	Engineering & Technology	PG	Power Systems Engineering	2013	--	Electrical and Electronics Engineering
13	Management	PG	Masters 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	No	Electronics & Communication Engineering	UG
Electrical and Electronics Engineering	No	Electrical & Electronics Engineering	UG
Mechanical Engineering	No	Mechanical Engineering	UG

Table No. A7.2: Allied Department(s) to the Department of the program considered for accreditation as above.
Cluster ID. Name of the Department (in table no. A7.1) Name of allied Departments/Cluster (for table no. A7.1)

No Record

PART-B: Program information

B1. Provide the Required Information for the Program Applied For:

Table No. B1: Program details.

A. List of the Programs Offered by the Department:

SR.NO.	PROGRAM NAME	PROGRAM APPLIED LEVEL	YEAR OF START / YEAR OF CLOSED	SANCTIONED INTAKE	INCREASE/DECREASE INTAKE (if any)	YEAR OF INCREASE/DECREASE	CURRENT INTAKE	YEAR OF AICTE APPROVAL	AICTE/COMPETENT AUTHORITY APPROVAL DETAILS
1	Mechanical Engineering	UG	2008 / --	60	Yes	2021	60	2021	F. No. Southern/1-9317548945/2021/EI date 2 July 2021

Sanctioned Intake for Last Five Years for the Engineering Design

Academic Year	Sanctioned Intake
2024-25	60
2023-24	60
2022-23	60
2021-22	60
2020-21	120
2019-20	120

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.H.Ramakrishnan
B. Nature of appointment:	Regular
C. Qualification:	ME/M. Tech and PhD

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)	60	60	60	60	120	120	180
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	63	63	61	60	47	108	144

N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	6	7	7	64	25	47
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.	63	69	68	67	111	133	191

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)	60	0	0	100.00
2023-24 (CAYm1)	60	0	0	100.00
2022-23 (CAYm2)	60	0	0	100.00

Average [(ER1 + ER2 + ER3) / 3] = 100.00= 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).	184.00	145.00	227.00
B=No. of students who graduated from the program in the stipulated course duration	94.00	123.00	179.00
Success Rate (SR)= (B/A) * 100	51.09	84.83	78.85

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 71.59

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)	7.20	7.38	7.43
Y=Total no. of successful students	62.00	59.00	56.00
Z=Total no. of students appeared in the examination	62.00	59.00	56.00
API [X*(Y/Z)]	7.20	7.38	7.43

Average API[(AP1+AP2+AP3)/3] : 7.34

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 2nd year/10)	7.36	7.55	7.74
Y=Total no. of successful students	65.00	62.00	109.00
Z=Total no. of students appeared in the examination	66.00	63.00	111.00
API [X * (Y/Z)]	7.25	7.43	7.60

Average API [(AP1 + AP2 + AP3)/3] : 7.43

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)	7.66	7.74	8.04
Y=Total no. of successful students	61.00	109.00	130.00
Z=Total no. of students appeared in the examination	62.00	109.00	130.00
API [X*(Y/Z)]:	7.54	7.74	8.04

Average API [(AP1 + AP2 + AP3)/3] : 7.77

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	184.00	145.00	227.00
X=No. of students placed	89.00	114.00	172.00
Y=No. of students admitted to higher studies	5.00	9.00	7.00
Z= No. of students taking up entrepreneurship	0.00	0.00	0.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	51.09	84.83	78.85

Average Placement Index = (P_1 + P_2 + P_3)/3: 71.59 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)
1	Dr.D.Srinivasan	XXXXXXX45D	ME/M. Tech and PhD	NIT, Trichy	Manufacturing Technology	03/05/2010	14.10	Professor	Professor	03/05/2010	Regular
2	Dr.H.Ramakrishnan	XXXXXXX19M	ME/M. Tech and PhD	Anna University, Chennai	Manufacturing Engineering	01/12/2010	14.3	Assistant Professor	Associate Professor	06/07/2023	Regular
3	Dr.K.Lenin	XXXXXXX24L	ME/M. Tech and PhD	NIT, Trichy	Welding	08/03/2018	7	Professor	Professor	08/03/2018	Regular
4	Dr.M. Ravichandran	XXXXXXX26D	ME/M. Tech and PhD	Anna University, Chennai	Manufacturing Engineering	13/06/2018	6.9	Associate Professor	Professor	01/10/2020	Regular
5	Dr. D. Jafrey Daniel James	XXXXXXX03Q	ME/M. Tech and PhD	NIT, Trichy	Polymer Composites	20/06/2018	6.9	Assistant Professor	Associate Professor	19/08/2019	Regular
6	Dr. R.Naveenkumar	XXXXXXX66E	ME/M. Tech and PhD	NIT, Trichy	Thermal Engineering	19/06/2017	7.9	Assistant Professor	Associate Professor	06/02/2024	Regular
7	Dr.K.Chellamuthu	XXXXXXX91G	ME/M. Tech and PhD	Anna University, Chennai	Polymer Composites	01/07/2011	13.8	Assistant Professor	Assistant Professor		Regular
8	Mr. N. Karthikeyan	XXXXXXX60H	M.E/M.Tech	NIT, Trichy	Industrial Engineering	25/11/2010	14.3	Assistant Professor	Assistant Professor		Regular
9	Mr. B. Prakash	XXXXXXX76M	M.E/M.Tech	Periyar Maniammai University	Nano Technology	02/06/2010	14.9	Assistant Professor	Assistant Professor		Regular
10	Mr. S. Nandha Gopan	XXXXXXX60A	M.E/M.Tech	Anna University, Chennai	Industrial Engineering	28/08/2012	12.6	Assistant Professor	Assistant Professor		Regular

11	Mr. A. Mohana Krishnan	XXXXXXXX96C	M.E/M.Tech	Anna University, Chennai	Engineering Design	06/08/2013	11.7	Assistant Professor	Assistant Professor		Regular
12	Mr. B. Veluchamy	XXXXXXXX75N	M.E/M.Tech	Anna University, Chennai	Engineering Design	12/06/2014	10.9	Assistant Professor	Assistant Professor		Regular
13	Mr. M. Manimaran	XXXXXXXX08H	M.E/M.Tech	Anna University, Chennai	Internal Combustion Engineering	12/06/2015	9.9	Assistant Professor	Assistant Professor		Regular
14	Mr. S. Raghuvaran	XXXXXXXX54K	M.E/M.Tech	Anna University, Chennai	Thermal Engineering	08/10/2015	9.5	Assistant Professor	Assistant Professor		Regular
15	Mr. S. Rajaram	XXXXXXXX02G	M.E/M.Tech	Anna University, Chennai	Manufacturing Engineering	21/07/2015	9.8	Assistant Professor	Assistant Professor		Regular
16	Mr. P.C.Santhosh Kumar	XXXXXXXX62N	M.E/M.Tech	Anna University, Chennai	Engineering Design	20/06/2016	8.9	Assistant Professor	Assistant Professor		Regular
17	Mr. S. Sivananthan	XXXXXXXX78D	M.E/M.Tech	Anna University, Chennai	CAD/CAM	06/06/2019	5.9	Assistant Professor	Assistant Professor		Regular
18	Mr. V. Venkadesh	XXXXXXXX72E	M.E/M.Tech	Anna University, Chennai	Engineering Design	25/02/2020	5	Assistant Professor	Assistant Professor		Regular
19	Mr.S.Balamurugan	XXXXXXXX24Q	M.E/M.Tech	Anna University, Chennai	CAD/CAM	16/11/2021	3.4	Assistant Professor	Assistant Professor		Regular
20	Mr.M. Infant Sebastin Prabhu	XXXXXXXX16D	M.E/M.Tech	Anna University, Chennai	Engineering Design	24/05/2022	2.10	Assistant Professor	Assistant Professor		Regular
21	Mr. M. Subramani	XXXXXXXX34H	M.E/M.Tech	Anna University, Chennai	Manufacturing Engineering	18/08/2021	2.10	Assistant Professor	Assistant Professor		Regular
22	Mr. B. Ashok	XXXXXXXX89Q	M.E/M.Tech	Anna University, Chennai	Thermal Engineering	22/06/2023	1	Assistant Professor	Assistant Professor		Regular
23	Mr. R. Cyril Joshva	XXXXXXXX77H	M.E/M.Tech	Anna University, Chennai	Thermal Engineering	20/06/2023	1	Assistant Professor	Assistant Professor		Regular
24	Dr. M. Ramesh	XXXXXXXX94B	ME/M. Tech and PhD	NIT, Trichy	Manufacturing Engineering	25/06/2014	9	Assistant Professor	Assistant Professor		Regular
25	Mr. N. Ganesh	XXXXXXXX23Q	M.E/M.Tech	Anna University, Chennai	Manufacturing Engineering	10/11/2012	10.7	Assistant Professor	Assistant Professor		Regular
26	Mr. V. Santhosh Kumar	XXXXXXXX85A	M.E/M.Tech	Anna University, Chennai	Manufacturing System and Management	03/06/2015	8	Assistant Professor	Assistant Professor		Regular
27	Dr.C.Anand Chairman	XXXXXXXX48P	ME/M. Tech and PhD	NIT, Trichy	Polymer Composites	10/07/2017	5.11	Associate Professor	Associate Professor	10/07/2017	Regular
28	Dr. M.Meignanamoorthy	XXXXXXXX56R	ME/M. Tech and PhD	Anna University, Chennai	Manufacturing Engineering	05/08/2020	2.10	Assistant Professor	Associate Professor	26/07/2021	Regular
29	Dr. M. Sridharan	XXXXXXXX21L	ME/M. Tech and PhD	Anna University, Chennai	Solar Energy	02/06/2020	3	Assistant Professor	Associate Professor	26/07/2021	Regular

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	66	66	66
UG1.C	66	66	120
UG1.D	66	120	132
UG1: Mechanical Engineering	198	252	318
PG1.A	12	12	12
PG1.B	12	12	18
PG1: Engineering Design	24	24	30
DS=Total no. of students in all UG and PG programs in the Department	222	276	348
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= 222	S2= 276	S3= 348
DF=Total no. of faculty members in the Department	20	23	27
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= 20	F2= 23	F3= 27
FF=The faculty members in F who have a 100% teaching load in the first-year courses	3	3	3
Student Faculty Ratio (SFR)=S/(F-FF)	SFR1= 13.06	SFR2= 13.80	SFR3= 14.50
Average SFR for 3 years	SFR= 13.79		

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	$FQ = 2.5 \times [(10X + 4Y) / RF]$
2024-25(CAY)	6	14	11.00	26.36
2023-24(CAYm1)	5	18	13.00	23.46
2022-23(CAYm2)	7	20	17.00	22.06

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

2024-25	1.00	3.00	2.00	3.00	7.00	14.00
2023-24	1.00	3.00	3.00	2.00	9.00	18.00
2022-23	1.00	3.00	3.00	4.00	11.00	20.00
Average	RF1=1.00	AF1=3.00	RF2=2.67	AF2=3.00	RF2=9.00	AF2=17.33

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)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Prof. S.K. Lakshmanamoorthy	Rtd. Professor	KRCE, Trichy	Finite Element Analysis	56.00
2	Mr. Bharathi Raja	Business Head	Tekera Training Center, Trichy	Tekla Software	40.00

(CAYm2)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr. N. Madheshwaran	Technical Director	Techie Training & Inspections, Trichy	Non Destructive Testing	62.00
2	Mr. M. Parthiban	Managing Director	Prime Engineering, Coimbatore	Advanced Technologies in Manufacturing	7.00

(CAYm3)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Dr. V. Dhinakaran	Head, R&D	GESCO Health Care Pvt. Ltd	Production Technology	56.00
2	Mr. G.Rajkumar	Technical Head	CAD Tech Institute of NDT	3D Printing	40.00
3	Dr. B. Vengadesan	Professor	IITM	Fluid Mechanics	7.00

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	30	38	32
2	No. of peer reviewed conference papers published	3	23	19
3	No. of books/book chapters published	1	6	2

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
Mr.M.Manimaran	Janagi RP	Mechanical Engineering	Smart Painting Technology	MSME Innovative Scheme	1 Year	13.50
						Amount received (Rs.):13.50

(CAYm2)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
-	-	-	-	-	-	0.00
						Amount received (Rs.):0.00

(CAYm3)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr.M.Ravichandran	Dr.D.Srinivasan	Mechanical Engineering	Development of Hydroxyapatite Reinforced Magnesium Based Composite Through Spark Plasma Sintering for Bio Medical Applications	Institution of Engineers India (IEI)	1 Year	1.00
						Amount received (Rs.):1.00

Total Amount (Lacs) Received for the Past 3 Years: 14.50

Note*:

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

C8. Consultancy Work

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

(CAYm1)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr.R.Naveenkumar	Mr.P.C.Santhosh Kumar	Mechanical Engineering	Design & Fabrication of Solar systems	Shree Kaleeswari Engineering	1	0.35
Mr.S.Raghuvaran	Mr.M.Manimaran	Mechanical Engineering	Coconut Dehusking Machine	Rivera Organics	1	0.45
Dr.M.Ravichandran	Dr.K.Chellamuthu	Mechanical Engineering	Material Testing	Scholars from Other Institutions	1	0.21
Mr.P.C.Santhosh Kumar	Dr.R.Naveenkumar	Mechanical Engineering	Fabrication of Mechanical Parts	RSK Engineering Industries	1	0.44
Mr.B.Veluchamy	Mr.A.Mohanakrishnan	Mechanical Engineering	Design & Fabrication of Machining Parts	Ferrokraft Machines	1	0.75
Dr.K.Lenin	Dr.D.Jafrey Daniel James	Mechanical Engineering	Quality Checking	Thirumala Electrodes	1	0.65
Dr.H.Ramakrishnan	Mr.N.Karthikeyan	Mechanical Engineering	Fabrication of Thermocouples	G.V.Industrial Heaters	1	0.40
						Amount received (Rs.):3.25

(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
Mr.S.Raghuvaran	Mr.M.Manimaran	Mechanical Engineering	Coconut Dehusking Machine	Sungov Enterprises	1	0.90
Dr.R.Naveenkumar	Mr.P.C.Santhosh Kumar	Mechanical Engineering	Design & Fabrication of Solar systems	Shree Kaleeswari Engineering	1	0.22
Dr.H.Ramakrishnan	Mr.N.Karthikeyan	Mechanical Engineering	Machining Process	Riki Engineering	1	0.10
Mr.P.C.Santhosh Kumar	Dr.R.Naveenkumar	Mechanical Engineering	Designing of R&D Components	RSK Engineering Industries	1	0.30
Dr.M.Ravichandran	Dr.K.Chellamuthu	Mechanical Engineering	Material Testing	Scholars from Other Institutions	1	0.07
Mr.S.Sivananthan	Mr.B.Prakash	Mechanical Engineering	Fabrication of Compressors accessories	Best Equipments and Services	1	0.40
						Amount received (Rs.):1.99

(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.M.Ravichandran	Dr.K.Chellamuthu	Mechanical Engineering	Material Testing	Scholars from Other Institutions	1	0.24
						Amount received (Rs.):0.24

Total amount (Lacs) received for the past 3 years: 5.48

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
Mr.S.Raghuvaran	Influence of Silicon Carbide Nanoparticles on hybrid composites	1 Year	0.10	0.10	Publication in SCI Journals
Mr.B.Veluchamy	Machinability behaviour of Magnesium alloy nanocomposites	1 Year	0.10	0.10	Publication in SCI Journals
Dr.H.Ramakrishnan	Features of Nano TiO ₂	1 Year	0.20	0.20	Publication in SCI Journals
Dr.M.Ravichandran	Synthesis of AA7075 Matrix Composites	1 Year	0.35	0.35	Publication in SCI Journals
Mr.N.Karthikeyan	Performance and Emission Analysis of CI Engines	1 Year	0.23	0.23	Publication in SCI Journals
Mr.A.Mohanakrishnan	Machinability of AA359 Alloy	1 Year	0.40	0.40	Publication in SCI Journals
Mr.S.Raghuvaran	TN45 Motor Sports	1 Year	1.46	1.46	Students achieved in Sports activity
			Amount received (Rs.): 2.84		

(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
Mr.P.C.Santhosh Kumar	Mechanical Interlocking Approaches	1 Year	0.10	0.10	Publication in SCI Journals
Mr.N.Karthikeyan	High Speed Grinding of EN31 Steel	1 Year	0.12	0.12	Publication in SCI Journals
Mr.Mr.M.Manimaran	Optimization of common rail direct injection diesel engine	1 Year	0.15	0.15	Publication in SCI Journals
Dr.R.Naveenkumar	Comprehensive review on solar dryer	1 Year	0.15	0.15	Publication in SCI Journals
Mr.S. Nandha Gopan	Indian automotive supply chains: barriers	1 Year	0.15	0.15	Publication in SCI Journals
Mr.M.Ramesh	Mechanical and Physical Characterization Studies	1 Year	0.15	0.15	Publication in SCI Journals
Dr.H.Ramakrishnan	Optimization Of Laser Cutting Process	1 Year	0.19	0.19	Publication in SCI Journals
Mr.Raghuvaran S	Influences of Various Thermal Cyclic Behaviours	1 Year	0.20	0.20	Publication in SCI Journals
Dr.K.Chellamuthu	Physico-mechanical and thermo-mechanical analysis	1 Year	0.23	0.23	Publication in SCI Journals
Mr.S.Sivanathan	Recent Developments in Stimuli	1 Year	0.29	0.29	Publication in SCI Journals
Mr.A.Mohanakrishnan	Influences of Nanosilica Particles on Density	1 Year	0.73	0.73	Publication in SCI Journals
Dr.Jafrey daniel James D	Machinability analysis and optimisation of EDM	1 Year	0.78	0.78	Publication in SCI Journals
Dr.K.Lenin	Thermal and thermo-mechanical studies on seashell	1 Year	0.82	0.82	Publication in SCI Journals
Dr.M.Ravichandran	Investigations on Silicon Carbide Reinforced High Entropy Alloy	1 Year	1.93	1.93	Publication in SCI Journals
Mr.S.Raghuvaran	TN45 Motor Sports	1 Year	0.70	0.70	Students achieved in Sports activity
			Amount received (Rs.): 6.69		

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

Total amount (Lacs) received for the past 3 years : 9.53

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	Basics of Engineering / Basics of Civil and	32	1.Bois-ARC250 Inverter Arc Welding Machine - 250 Amps 2. Bosch -	First year stud	Mr. N. Tamilse	Lab Technicia	ITI

2	Manufacturing Technology Laboratory	35	1. Accu – Max 4 ½' Lathe With Accessories 2. Pratik 6' Lathe With Accessories 3. Press 4. Lathe Turret	(8 Hours per w	Mr. N. Palania	Lab Technicia	ITI
3	Fluid Mechanics and Machinery Laboratory	35	1. Orifice meter (Head:20m) 2. Venturimeter (Head:20m) 3. Gear oil pump 4. MFD 4. Rotameter	(4 Hours Per w	Mr. N. Palania	Lab Technicia	ITI
4	Thermal Engineering Laboratory	35	1. Honda – Single Cylinder 4S Petrol Engine with Mechanical Loading 2. Motorized Single Cylinder 4S Petrol	(10 Hours per w	Mr. N. Tamise	Lab Technicia	ITI
5	Strength of Materials Laboratory	35	1. Microscope (Binocular) 2. Deflection Test Apparatus 3. Muffle Furnace (900°C) 4. Tensile Fixture	(2 Hours per w	Mr. M. Durais	Lab Technicia	ITI
6	Theory of Machines Laboratory	35	1. Turn table apparatus 2. Bifilar suspension 3. Motorized Gyroscopic constant 4. Universal Governor Setup	(2 Hours Per v	Mr. M. Durais	Lab Technicia	ITI
7	Metrology and Measurements Laboratory	35	1. YAMAYO – Height gauge (300mm) 2. YAMAYO - Vernier Caliper (60mm, 90mm, 120mm, 150mm) 3. YAMAYO	(4 Hours Per w	Mrs. G. Goma	Lab Technicia	Diploma in Civ
8	C.A.D. / C.A.M. Laboratory	35	1. Systems (Intel core i57th Gen. 4GB RAM 1 TB hard disk, 6 MB Cache, 3.5 GHz) 2. Laser Printer	(18 Hours Per v	Mrs. G. Goma	Lab Technicia	Diploma in Civ
9	Mechatronics Laboratory	35	1. Basic Electro Pneumatic Trainer kit (VMPT-302-LC). 2. Basic PLC Controlled Pneumatic Trainer	(6 Hours per w	Mr. M. Durais	Lab Technicia	ITI

D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures
1	Basics of Engineering / Basics of Civil and Mechanical Lab	1. General Rules of Conducting Laboratories are displayed. 2. First aid box, Fire extinguisher is kept in the laboratory. 3. Periodical maintenance of the machines. 4. MCB switches are available for protection against overload or short circuit 5. Timetable and list of equipment's available inside the lab are also displayed in notice board 6. The shop floor should be kept clean always and free from dirt of any kind. 7. Always students must wear tight and fit clothing and shoes. 8. Working area marking are done properly. 9. Wooden platform is provided for all machines. 10. Proper lighting & ventilation is provided. 11. Avoiding the use of cell phones. 12. Avoiding carrying personnel belongings inside the lab
2	Manufacturing Technology Lab	1. General Rules of Conducting Laboratories are displayed. 2. First aid box, Fire extinguisher is kept in the laboratory. 3. Periodical maintenance of the machines. 4. MCB switches are available for protection against overload or short circuit 5. Timetable and list of equipment's available in side the lab are also displayed in notice board 6. The shop floor should be kept clean always and free from dirt of any kind. 7. Always students must wear tight and fit clothing and shoes. 8. Working area marking are done properly. 9. Wooden platform is provided for all machines. 10. Proper lighting & ventilation is provided. 11. Avoiding the use of cell phones. 12. Avoiding carrying personnel belongings inside the lab
3	Fluid mechanics and machinery lab	1. General Rules of Conducting Laboratories are displayed. 2. First aid box, Fire extinguisheris kept in the laboratory. 3. Periodical maintenance of the lab machinery 4. MCB switches are available for protection against overload or short circuit 5. Timetable and list of equipment's available insidethe lab are also displayed in notice board 6. Laboratory should maintain neat and dry. 7. Always students must wear tight and fit clothing and shoes. 8. Working area marking are done properly. 9. Proper lighting & ventilation is provided. 10. Avoiding the use of cell phones. 11. Avoiding carrying personnel belongings inside the lab
4	Thermal Engineering Lab	1. General Rules of Conducting Laboratories are displayed. 2. First aid box, Fire extinguisher is kept in the laboratory. 3. Periodical maintenance of the lab machinery 4. MCB switches are available for protection against overload or short circuit 5. Timetable and list of equipment's available in side the lab are also displayed in notice board. 6. Laboratory should maintain neat and dry. 7. Always students must wear tight and fit clothing and shoes. 8. Working area marking are done properly. 9. Proper lighting & ventilation is provided. 10. Smoke exhausts are provided properly. 11. Fuels and oils are store in proper manner. 12. Avoiding the use of cell phones. 13. Avoiding carrying personnel belongings inside the lab

5	Strength of Materials Lab	1. General Rules of Conducting Laboratories are displayed. 2. First aid box, Fire extinguisher is kept in the laboratory. 3. Periodical maintenance of the lab machinery 4. MCB switches are available for protection against overload or short circuit 5. Timetable and list of equipment's available inside the lab are also displayed in notice board 6. Laboratory should maintain neat and dry. 7. Always students must wear tight and fit clothing and shoes. 8. Working area marking are done properly. 9. Proper lighting & ventilation is provided. 10. Avoiding the use of cell phones. 11. Avoiding carrying personnel belongings inside the lab
6	Theory of Machines Lab	1. General Rules of Conducting Laboratories are displayed. 2. First aid box, Fire extinguisher is kept in the laboratory. 3. Periodical maintenance of the lab machinery 4. MCB switches are available for protection against overload or short circuit 5. Timetable and list of equipment's available inside the lab are also displayed in notice board 6. Laboratory should maintain neat and dry. 7. Always students must wear tight and fit clothing and shoes. 8. Working area marking are done properly. 9. Proper lighting & ventilation is provided. 10. Avoiding the use of cell phones. 11. Avoiding carrying personnel belongings inside the lab
7	Metrology and Measurements Lab	1. General Rules of Conducting Laboratories are displayed. 2. First aid box, Fire extinguisher is kept in the laboratory. 3. Periodical calibration of equipment's is done properly. 4. MCB switches are available for protection against overload or short circuit 5. Timetable and list of equipment's available inside the lab are also displayed in notice board 6. Laboratory should maintain neat and dry. 7. Always students must wear tight and fit clothing and shoes. 8. Proper lighting & ventilation is provided. 9. Avoiding the use of cell phones. 10. Avoiding carrying personnel belongings inside the lab
8	CAD /CAM lab	1. General Rules of Conducting Laboratories are displayed. 2. First aid box, Fire extinguisher is kept in the laboratory. 3. Periodical servicing of the lab equipment. 4. Maintain a clean and organized laboratory. 5. Avoiding the use of cell phones. 6. Appropriate storage areas. 7. Permission denied for pen drives. 8. Sign the log-out register before leaving the lab. 9. Computers should be turned off properly before leaving the lab. 10. Students must remove their foot wears before entering in to the lab. 11. The student must check the computer unit and its peripherals attached before using it. 12. The student must immediately inform the instructor if there is any defect, error or damage observed at the computer (hardware/software).
9	MECHATRONICS LAB	1. General Rules of Conducting Laboratories are displayed. 2. First aid box, Fire extinguisher is kept in the laboratory. 3. Periodical servicing of the lab equipment. 4. Maintain a clean and organized laboratory. 5. Avoiding the use of cellphones. 6. Appropriate storage areas. 7. Permission denied for pen drives. 8. Computers should be turned off properly before leaving the lab. 9. Students must remove the connections before in the experiment before leaving the lab

D3. Project Laboratory/Research Laboratory

PROJECT LABORATORY/RESEARCH LABORATORY/CENTRE OF EXCELLENCE

The departmental laboratories are sufficiently equipped to carry out B.E, M.E and Ph.D. research projects. Depending on the area of specialization, student(s) are assigned laboratories where they undertake their respective projects with the guidance of their supervisors/laboratory in-charges.

Department of Mechanical Engineering has established “**Advanced Material Testing Laboratory**” as research laboratory and “**SAE Laboratory**”, “**Automation Laboratory**” and “**Industry Sponsored Non Destructive Testing Laboratory**” as **Centre of Excellence (CoE)**. These are very much useful to develop the practical knowledge, to do the project and research works. Apart from this department of mechanical engineering is having an AICTE sponsored “**AR & VR Laboratory**” for improving the leaning experience through augmented reality and virtual reality.

The CoEs provide facilities for students to develop projects and to participate in student competitions conducted by various organizations. They also provide facilities for students to develop innovative products and develop skills in Innovation and Entrepreneurship leading them to establish start up companies.

Centers of Excellence (CoEs) also function as **Research Laboratories**, providing a platform for students and faculty to engage in cutting-edge research, particularly in **emerging technologies**. These facilities support the development and publication of **research papers** in reputed **conferences and journals**. Additionally, innovative research outcomes may be eligible for **Intellectual Property Rights (IPR)**, including **patents, copyrights**, and other forms of legal protection.

Table 7.1: LIST OF PROJECT LABORATORY / RESEARCH LABORATORY / CETNRE OF EXCELLENCE

Sl. No.	Laboratory	Utilization	Laboratory Incharge	Supporting Staff
RESEARCH LABORATORY /PROJECT LABORATORY/ CENTRE OF EXCELLENCE				
1	Advanced Material Testing Laboratory	Students, Research scholars and faculty members used for testing purposes	Dr.M. Ravichandran	Mr. N. Tamilselvan
2	AR&VR Laboratory	Hands on training for virtual learning	Mr. S. Sivanantham	Mrs. G. Gomathi
3	SAE Laboratory	Workshop for vehicle designing and developing	Mr. S. Raghvaran	Mr. Infant Sebastin Prabu
4	Automation Laboratory	Students can learn the basics of automation	Mr. M. Manimaran	Mr. S. Balamurugan
5	Industry Sponsored Non Destructive Testing Laboratory	Students, Research scholars and faculty members used for testing purposes	Mr. B. Prakash	Mr. M. Duraisamy
6	Project Laboratory	Students can utilize seniors projects for developing their own projects	All faculties	-

• Advanced Material Testing Laboratory

The Advanced Material Testing Laboratory is a state-of-the-art facility designed to evaluate the mechanical and morphological properties of various engineering materials. It provides hands-on experience with advanced testing equipment such as universal testing machines, hardness testers, impact testers, and optical microscope. The lab supports both academic learning and research by enabling material characterization, failure analysis, and quality assessment. It plays a crucial role in developing new materials and validating their performance for industrial applications.



Figure 7.3 Snapshot of Advanced Material Testing Laboratory

List of Equipments:

1. Pin on Disc Wear Testing machine
2. Optical Microscope with Image analyzer
3. Double Disc Polishing Machine
4. Micro Vickers Hardness Testing Machine
5. Computer controlled Universal Testing Machine

Outcomes of the Laboratory:

1. Students gain hands-on experience in evaluating mechanical and tribological properties such as hardness, tensile strength, and wear resistance enhancing their understanding of material behavior under different conditions.
2. Students learn to prepare and analyze metallographic samples, enabling them to correlate microstructural features with material performance and processing techniques.

• **AR & VR Laboratory**

The **AR/VR Laboratory** in Mechanical Engineering is a state-of-the-art facility designed to integrate **Augmented Reality (AR)** and **Virtual Reality (VR)** technologies into engineering education and research. It enables immersive visualization of complex mechanical systems, virtual prototyping, and simulation of manufacturing processes. Students can interact with 3D models of engines, machines, and structures, enhancing their understanding of design and functionality. The lab supports curriculum development, advanced research, and industry collaborations in areas such as digital twins, product design, and maintenance training. It bridges the gap between theoretical knowledge and real-world application through experiential learning and interactive technology.



Figure 7.4 Snapshot of AR & VR Laboratory

List of Equipments:

1. TABLET XIAOMI PAD (MODEL : 20151182G)
2. OCULUS QUEST 2 ADVANCED ALL-IN-ONE
3. VIRTUAL REALITY HEADSET (128GB)
4. MIXED REALITY MICROSOFT HOLOLENS
5. AR & VR MODULES
6. COMPUTER WITH ACCESSORIES

Outcomes of the Laboratory:

1. Students gain hands-on experience in creating immersive applications using AR/VR devices and development modules.
2. Students learn how to apply AR/VR technologies in real-world scenarios across various domains such as engineering, healthcare, and education.

• **SAE Laboratory**

The SAE (Society of Automotive Engineers) Laboratory in Mechanical Engineering is a specialized facility designed to support automotive-related research, innovation, and hands-on learning. It provides students with the tools and equipment necessary to design, fabricate, and test vehicles, particularly for competitions like SAE BAJA, Gokart, and EFFI-Cycle. The lab fosters skills in vehicle dynamics, power train design, chassis

development, and manufacturing techniques. Students gain practical experience in CAD modeling, simulation, and testing under real-world conditions. The SAE Lab also encourages teamwork, project management, and innovation, making it an essential part of preparing mechanical engineering students for the automotive industry.

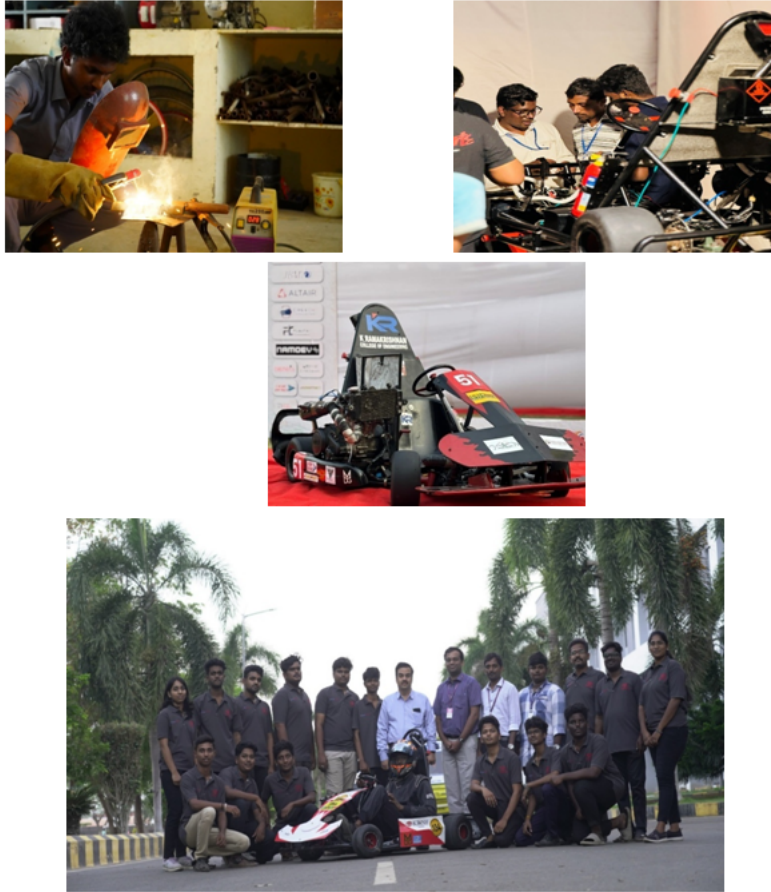


Figure 7.5 Snapshot of SAE Activities

Outcomes:

1. Design and Fabrication of Vehicles

SAE student teams are most commonly associated with the design and construction of vehicles, whether they be Baja-style off-road vehicles, Kart style vehicles and electric and autonomous vehicles. These projects require students to utilize knowledge from multiple engineering disciplines including mechanical, electrical, and software engineering.

2. Prototype Testing and Validation

After the design and fabrication of their vehicles, SAE teams are heavily involved in testing and validating the performance of their prototypes. (i. Track Testing, ii. Stress Testing iii. Simulations)

3. Workshops and Technical Skill Development

SAE teams provide a platform for students to develop a wide range of technical skills, many of which are crucial for careers in engineering. Workshops and training sessions are an integral part of team activities.

4. Competition Preparation and Participation

Participation in SAE competitions is one of the primary motivations for joining an SAE team. These competitions not only serve as a benchmark for students to test their engineering solutions but also allow them to demonstrate their skills to a panel of judges and industry professionals.

5. Networking and Career Development

SAE teams offer students invaluable networking opportunities with professionals in the automotive and engineering industries. These activities allow students to build relationships that can benefit their future careers.

6. Team Management and Leadership Development

Being part of an SAE team is not just about technical skills—it also involves learning how to work effectively in a team environment. Students are often assigned specific roles within the team, which can include leadership positions such as team captain, project manager, or lead engineer.

Industry Sponsored Non Destructive Testing Laboratory

The Non-Destructive Testing (NDT) Laboratory in Mechanical Engineering is dedicated to evaluating the properties and integrity of materials and components without causing damage. It provides hands-on training and research opportunities using methods such as Ultrasonic Testing, Magnetic Particle Testing, and Liquid Penetrant Testing. The lab plays a crucial role in quality control, failure analysis, and maintenance of critical

components in industries like aerospace, automotive, and manufacturing. Equipped with advanced testing instruments, the lab enables students and researchers to detect surface and internal defects, ensuring safety and reliability in engineering applications while preserving the usability of tested specimens.



Figure 7.6 Snapshot of Industry Sponsored Testing Laboratory

List of Equipments:

1. Liquid Penetrant Testing Equipment
2. Magnetic Particle Testing Equipment
3. Ultrasonic Testing Equipment

Outcomes:

1. All three methods help identify surface or internal defects such as cracks, voids, inclusions, or discontinuities that may compromise the integrity of a component.
2. These tests ensure that materials and components meet safety and quality standards, preventing failures in critical applications and extending the service life of the product.
3. Students those who experienced in this laboratory may get internship and placement opportunity in various companies.

Automation Laboratory

The Drone Laboratory for Mechanical Engineering focuses on the design, development, and testing of unmanned aerial vehicles (UAVs). It integrates aerodynamics, propulsion, control systems, and materials science to create advanced drones. Students and researchers explore innovative solutions in flight performance, structural integrity, and autonomous capabilities.



Figure 7.7 Snapshot of Automation Laboratory

Outcomes:

- Drone Automation Lab is a specialized facility dedicated to the design, development, and testing of unmanned aerial vehicles (UAVs) and their automation systems. Equipped with advanced drones, sensors, control systems, and software tools, the lab enables students and researchers to explore autonomous flight, navigation, and mission execution.
- Here our students are working in autonomous spray painting drones, this laboratory is established by the support of MSME Idea Hackathon Women Category.

Project Laboratory



Figure: 7. 8 Snapshot of Project Laboratory

Outcomes:

1. Project laboratory is the space provided for storing the projects of previous year students which is helpful to know about the basic principles of those projects and it is useful for the students to create new projects based on their seniors experience.
2. Students learn to work in teams, manage time, allocate resources, and document/report their work—key skills for professional engineering practice.

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)	660	33	33	18	91
2023-24(CAYm1)	660	33	32	24	92
2024-25(CAY)	720	36	34	24	89

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 2024-25	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	Budgeted in 2021-22	Actual Expenses in 2021-22 till
Infrastructure Built-Up	78.75	66.98	80.00	75.26	35.20	33.87	61.51	58.59
Library	23.89	23.02	21.50	20.50	29.15	27.73	6.29	5.99
Laboratory equipment	75.46	71.87	150.00	142.81	221.60	211.05	39.50	37.23
Teaching and non-teaching staff salary	1138.66	1110.01	1129.30	1075.53	960.00	915.11	706.00	672.35
Outreach Programs	0.78	0.75	0.60	0.47	0.54	0.44	0.53	0.42
R&D	10.86	10.35	59.57	56.74	16.60	15.82	8.80	8.46
Training, Placement and Industry	205.28	195.51	126.56	120.54	175.00	168.08	77.50	73.23
SDGs	4.30	3.44	2.60	2.47	5.25	4.46	2.70	2.50
Entrepreneurship	0.70	0.64	0.50	0.38	0.50	0.45	0.70	0.37
Others, specify	978.45	931.86	754.10	721.19	904.10	882.69	580.00	552.44
Total	2517.13	2414.43	2324.73	2215.89	2347.94	2259.70	1483.53	1411.58

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 2024-25	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	Budgeted in 2021-22	Actual Expenses in 2021-22 till
Laboratory equipment	0.1	0.08	0.3	0.27	24	22.75	0.65	0.31
Software	3.25	2.92	2.00	1.6	17.45	14.46	0.6	0.46
SDGs	1.10	0.95	1	0.85	1	0.81	2	1.84
Support for faculty development	0.25	0.17	0.75	0.63	0.10	0.05	0.1	0.03
R & D	5	4.58	3	2.13	10	7.67	12	9.75
Industrial Training, Industry expert,	0.2	0.15	0.2	0.15	0.1	0.05	0.1	0.03

Miscellaneous Expenses*	0.3	0.25	0.3	0.2	0.3	0.25	0.4	0.2
Total	10.20	9.10	7.55	5.83	52.95	46.04	15.85	12.62