### **NATIONAL BOARD OF ACCREDITATION**

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

# **PART-A: Profile of the Institute**

Name of the Program Applied for: Mechanical Engineering

	and of the Frogram Applica for Freehanical Engineering						
A1:	Name of the Institute: - Panin	nalar Engineering Co	llege				
	Year of Establishment : 200	00	Location of the Institute:				
			13 <sup>0</sup> 05′ N Latitude, 80 <sup>0</sup> 07′E Lor	ngitude			
A2:	Institute Address: -						
	City	: Chennai	State: Tamil Nadu				
	Pin Code	: 600123	Website: www.panimalar.ac.i	n			
	E-mail: info@panimalar.ac.in		Phone No (with STD Code):0	44-26490404			
A3:	Name and Address of the	Affiliating Universit	y (If any): -				
	Name of the University	: Anna University	City : Chennai				
	State	: Tamil Nadu	Pin Code: 600025				
<b>A4</b> :	Type of the Institution: - (	Tick the applicable	e choice)				
	Institute of National Importan	ce	Deemed University				
	University		Autonomous	<b>√</b>			
	Non-Autonomous (Affiliated)		Any other (Please specify)	*			
	*Provide Details:						
A5:	Ownership Status: - (Tick	the applicable choi	ice)				
	Central Government		State Government				
	Government Aided		Self-financing	$\sqrt{}$			
	Any Other (Please specify) *		*Provide Details:				
A6:	Details of all Programs bei	ng Offered by the I	nstitution: -				

❖ No. of UG programs: <u>07</u> ❖ No. of PG programs: <u>03</u>

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

S.N.	Level of program (UG/PG)	Name of the program	Year of Start	Year close*	Name of the Department
1.	UG	B.E.(Computer Science and Engineering)	2000	ı	Computer Science and Engineering

2.	PG	M.E.(Computer Science and Engineering)	2016	-	Computer Science and Engineering
3.	UG	B.E.(Electronics and Communication Engineering )	2000	-	Electronics and Communication Engineering
4.	PG	M.E.(Communication Systems )	2016	-	Electronics and Communication Engineering
5.	UG	B.Tech (Information Technology)	2000	-	Information Technology
6.	UG	B.E.(Electrical and Electronics Engineering)	2001	-	Electrical and Electronics Engineering
7.	UG	B.E.(Mechanical Engineering)	2002	-	Mechanical Engineering
8.	UG	B.Tech.(Artificial Intelligence and Data Science)	2020	-	Artificial Intelligence and Data Science
9.	UG	B.Tech.(Computer Science and Business Systems)	2020	2025	Computer Science and Business Systems
10.	UG	B.Tech.(Artificial Intelligence and Machine Learning)	2022	-	Artificial Intelligence and Machine Learning
11.	PG	Master of Business Administration	2002	-	Master of Business Administration

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

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

Cluster ID.	Name of the Department	Name of the Program
1.	Computer Science and Engineering	B.E.(Computer Science and Engineering )
2.	Information Technology	B.Tech (Information Technology)
3.	Electronics and Communication Engineering	B.E.(Electronics and Communication Engineering )
4.	Electrical and Electronics Engineering	B.E.(Electrical and Electronics Engineering)
5.	Mechanical Engineering	B.E.(Mechanical Engineering)

**Table No. A7.2:** Allied Department(s) to the Department of the program considered for accreditation as above.

Cluster	Name of the Department (in	Name of allied Departments/Cluster (for
ID.	table no. A7.1)	table no. A7.1)
1.	Computer Science and Engineering	B.Tech (Information Technology)
1.	Computer Science and Engineering	B.Tech.(Artificial Intelligence and Data Science)
1.	Computer Science and Engineering	B.Tech.(Computer Science and Business Systems)
1.	Computer Science and Engineering	B.Tech.(Artificial Intelligence and Machine Learning)
2.	Information Technology	B.E.(Computer Science and Engineering )
2.	Information Technology	B.Tech.(Artificial Intelligence and Data Science)
2.	Information Technology	B.Tech.(Computer Science and Business Systems)
2.	Information Technology	B.Tech.(Artificial Intelligence and Machine Learning)
	Electronics and Communication Engineering	Nil
4.	Electrical and Electronics Engineering	Nil
5.	Mechanical Engineering	Nil

#### **PART-B: Program information**

(Data to be filled in for the program applied for Accreditation)

# **B1:** Provide the Required Information for the Program Applied For: -

**Table No. B1:** Program details.

	Program Name	Year of start	Sanctioned Intake	Increase/ decrease in intake, if any	Year of increase/ decrease	AICTE Approval Details	Accreditat ion Status*	No. of times program accredited
1.	Mechanical Engineering	2002	60	Yes	2024	Southern/1- 43658689728 /2024/EOA Dated	for 3 years	4

<sup>\*</sup> Write applicable one:

Applying first time

C.

- Granted accreditation for 2/3 years for the period (specify period)
- Granted accreditation for 5/6 years for the period (specify period)
- Not accredited (specify visit dates, year).
- Withdrawn (specify visit dates, year)
- Not eligible for accreditation.

B2:	<b>Detail of Head of the Department</b>	for the program	under consideration:

- A. Name of the HoD: Dr.L.Karthikeyan
- B. Nature of appointment: (Tick the applicable choice)

*	Regular	√
*	Contract	
*	Ad hoc	
Q	ualification: (Ti	ck the applicable choice)
*	Ph.D.	<b>✓</b>
*	ME/M.Tech	
*	Any other*	

\*Please provide details:

# **B3:** Program Details

**Table No.B3.1:** Admission details for the program excluding those admitted through multiple entry and exit points.

Item	(Information is to be	CAY	CAYm1	points.	CAYm3	CAYm4	CAYm5	CAYm6
	ded cumulatively for			2022-23	2021-22	(LYG)	(LYGm1)	(LYGm2)
	ne shifts with explicit					2020-21	2019-20	`2018-19
headi	ings, wherever							
applic	cable)							
N= Sa	anctioned intake of the							
	program (as per AICTE /Competent authority)	90	180	240	300	360	360	360
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	82	171	163	191	146	338	346
N2=	Number of students admitted in 2 <sup>nd</sup> year in the same batch via lateral entry including leftover seats	6	12	24	30	36	36	36
N3= S	Separate division if any	-	-	-	-	-	-	-
N4=	Total no. of students admitted in the 1 <sup>st</sup> year via all supernumerary quotas	-	-	3	6	67	13	10
Total	number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	88	183	190	227	249	387	392

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 1<sup>st</sup> year.

Item (Students enrolled in the First Year on average over 3 academic years (CAY, CAYm1, and CAYm2))	CAY 2024-25	CAYm1 2023-24	CAYm2 2022-23
N= Sanctioned intake of the program in the 1st year (as per AICTE/Competent authority)	90	180	240
N1= Total no. of students admitted in the 1 <sup>st</sup> year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program		171	163
N4= Total no. of students admitted in the 1 <sup>st</sup> year via all supernumerary quotas	-	-	-
Enrolment Ratio (ER)= (N1+N4)/N	0.91	0.95	0.679
<b>Average ER=</b> (ER_1+ ER_2+ ER_3)/3		0.846	

### **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	LYG	LYGm1	LYGm2
	2020-21	2019-20	2018-19
A*= (No. of students admitted in the 1 <sup>st</sup> year of that batch and those actually admitted in the 2 <sup>nd</sup> 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).	249	387	392
B=No. of students who graduated from the program in the stipulated course duration	236	367	387
Success Rate (SR)= (B/A)*100	94.78	94.83	98.72
Average SR of three batches ((SR_1+SR_2+ SR_3)/3)		96.11	

**Note** \*: If the value of A in Table No. B5.1 is less than the sum of the sanctioned intake (N) and the lateral entry including leftover seats (N2), then the value of A in Table No.B5.1 should be the sum of the sanctioned intake (N) and the lateral entry including leftover seats (N2) of Table No.B3.1.

#### **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	<b>CAYm1</b> 2023-24	<b>CAYm2</b> 2022-23	<b>CAYm3</b> 2021-22
X= (Mean of $1^{\rm st}$ 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 $1^{\rm st}$ year/10)	8.165	7.919	7.828
Y= Total no. of successful students	171	163	192
Z = Total no. of students appeared in the examination	171	163	192
$API = X^* (Y/Z)$	8.165	7.919	7.828
Average API = ( API_1 + API_2 + API_3)/3		7.970	

### **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	<b>CAYm1</b> 2023-24	<b>CAYm2</b> 2022-23	<b>CAYm3</b> 2021-22
$X=$ (Mean of $2^{nd}$ 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 $2^{rd}$ year/10)		8.137	8.106
Y= Total no. of successful students	190	227	249
Z =Total no. of students appeared in the examination	190	227	249
$API = X^* (Y/Z)$	8.239	8.137	8.106
Average API = $(API_1 + API_2 + API_3)/3$		8.160	

# **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	<b>CAYm1</b> 2023-24	<b>CAYm2</b> 2022-23	<b>CAYm3</b> 2021-22
$X=$ (Mean of $3^{rd}$ 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 $3^{rd}$ year/10)		8.306	8.103
Y= Total no. of successful students	227	249	387
Z= Total no. of students appeared in the examination	227	249	387
$API = X^* (Y/Z)$	8.293	8.306	8.103
Average API = ( API_1 + API_2 + API_3)/3		8.234	

#### **B9:** Placement, Higher Studies, and Entrepreneurship

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

Item	<b>LYG</b> 2020-21	<b>LYGm1</b> 2019-20	<b>LYGm2</b> 2018-19
FS*=Total no. of final year students	249	387	392
X= No. of students placed	203	292	299
Y= No. of students admitted to higher studies	6	16	23
Z= No. of students taking up entrepreneurship	12	2	-
X + Y + Z =	221	310	322
Placement Index (P) = $(((X + Y + Z)/FS) * 100)$	88.75	80.10	82.14
Average placement index = $(P_1 + P_2 + P_3)/3$		83.66	

**Note** \*: If the value of FS in Table No. B9.1 is less than the sum of the sanctioned intake (N) and the lateral entry including leftover seats (N2), then the value of FS in Table No. B9.1 should be the sum of the sanctioned intake (N) and the lateral entry including leftover seats (N2) of Table No.B3.1.

# <u>PART C: Faculty Details in Department and Allied Departments</u> (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 pasty 3 Years including CAY

S.NO	Name of the Faculty	PAN NO.	APAAR faculty ID*(if any)	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)	If contractual mention Full time or (Part time or hourly based)	Currently Associated (Y/N)	Date of Leaving if any (In case Currently Associated is " No" )
1.	Dr. L. Karthikeyan	AIMPK2400N	-	PhD	Anna University	Industrial Engineering	16-07-2001	23.6	Assistant Professor	Professor	01-12-2010	Regular	-	Υ	-
2.	Dr. N. Nithyanandan	AENPN4742H	-	PhD	Dr. M G R Educational and Research Institute	Energy Engineering	18-06-2008	16.6	Assistant Professor	Professor	01-06-2011	Regular	-	Υ	-
3.	Dr. I. Paul Theophilus Rajakumar	AKCPP7877J	-	PhD	Anna University	Computer Aided Design	30-05-2006	18.7	Assistant Professor	Professor	03-06-2013	Regular	1	Υ	-
4.	Dr. A. Anbarasu	AHRPA3270A	-	PhD	Sathyabama University	Thermal power Engineering	02-06-2004	20.7	Assistant Professor	Professor	01-07-2014	Regular	-	Υ	-
5.	Dr. M. Puviyarasan	АРКРРЗ673В	-	PhD	Anna University	Computer Aided Design	07-06-2004	20.7	Assistant Professor	Professor	01-06-2017	Regular	-	Υ	-

6.	Mr. C.Karthikeyan	BIRPK5584M	-	PhD	Anna University	Internal Combustion Engines	01-06-2009	15.7	Assistant Professor	Professor	01-06-2015	Regular	-	Υ	-
7.	Dr. K. Thiruselvam	AEBPT0505N	-	PhD	Anna University	Automobile Engineering	01-06-2005	19.7	Assistant Professor	Professor	03-08-2020	Regular	-	Υ	-
8.	Dr. T. Mayavan	AMNPM1746J	1	PhD	Sathyabama University	Refrigeration& Air conditioning	12-07-2006	18.6	Assistant Professor	Professor	01-07-2021	Regular	-	Υ	-
9.	Dr. A. Latha	AHSPA9783D	ı	PhD	Sathyabama Institute of Science and Technology	Environmental Engineering	02-06-2005	19.7	Assistant Professor	Professor	03-02-2020	Regular	-	Υ	-
10.	Dr. K.R.Padmavathi	BAUPP0786R	ı	PhD	Sathyabama Institute of Science and Technology	Computer Integrated Manufacturing	01-07-2008	16.6	Assistant Professor	Professor	01-07-2021	Regular	-	Υ	-
11.	Dr. R. Murugan	AGTPM7820K	-	PhD	Anna University	Engineering Design	01-06-2016	8.7	Professor	Professor	01-06-2016	Regular	-	Υ	-
12.	Dr.G.Rathinasabapathi	AMLPR3265K	-	PhD	Sathyabama Institute of Science and Technology	Computer Aided Design	15-05-2006	18.8	Assistant Professor	Professor	01-07-2024	Regular	-	Y	-
13.	Dr. G. Senthil Kumar	BNNPS7567R	ı	PhD	Sathyabama Institute of Science and Technology	Computer Aided Design	18-05-2012	12.7	Assistant Professor	Associate Professor	01-06-2016	Regular	-	Υ	-
14.	Mr. P. Sriram	DGEPS6867N	-		Anna University	CAD/CAM	04-06-2012	12.7	Assistant Professor	Associate Professor	01-06-2016	Regular	-	Υ	-
15.	Mr. K.Naveen	AMDPN6331Q	-		Anna University	Thermal Engineering	03-06-2015	9.7	Assistant Professor	Associate Professor	01-02-2017	Regular	-	Υ	-
16.	Dr. N. Poyyamozhi	BRUPP8780Q	-	PhD	Sathyabama Institute of Science and Technology	Thermal power Engineering	08-06-2016	8.7	Assistant Professor	Assistant Professor		Regular	-	Υ	-

17.	Dr. K. Yesuraj	ALNPY0797J	-	PhD	Anna University	CAD/CAM	17-06-2015	9.6	Assistant Professor	Assistant Professor	Regular	-	Υ	-
18.	Dr. I. John Solomon	ABYPI3740G	-	PhD	Anna University	Manufacturing Engineering	17-06-2015	9.6	Assistant Professor	Assistant Professor	Regular	-	Y	-
19.	Dr. J. Gunasekaran	BFEPG8962D	-	PhD	Anna University	Computer Integrated Manufacturing	29-05-2015	9.7	Assistant Professor	Assistant Professor	Regular	-	Υ	-
20.	Mr. J.Murugesan	BOOPM8658B	-	M.E	Anna University	CAD/CAM	29-05-2015	9.7	Assistant Professor	Assistant Professor	Regular	-	Y	-
21.	Mr. S.Senthil	DUFPS7826N	-	M.E	Anna University	Computer Integrated Manufacturing	26-05-2014	10.7	Assistant Professor	Assistant Professor	Regular	-	Υ	-
22.	Mr. R.Saravanan	GGXPS9885L	-	M.E	SRM University	Energy Engineering	16-07-2014	10.5	Assistant Professor	Assistant Professor	Regular	-	Y	-
23.	Mr. S.Thamizh Selvan	ALLPT9820H	-	M.E	Anna University	CAD/CAM	29-05-2015	9.7	Assistant Professor	Assistant Professor	Regular	-	Y	-
24.	Mr. S.Dhanasekar	FJBPS6910L	-	M.E	Anna University	Internal Combustion Engines	04-06-2014	10.7	Assistant Professor	Assistant Professor	Regular	-	Υ	-
25.	Mr. S.Senthilkumar	FIBPS2394H	-	M.E	SRM University	Energy Engineering	28-07-2014	10.5	Assistant Professor	Assistant Professor	Regular	-	Y	-
26.	Mr. P.Sakthikumar	GGDPS3185K	-	M.E	Sathyabama University	Computer Aided Design	15-06-2016	8.6	Assistant Professor	Assistant Professor	Regular	-	Y	-
27.	Mr. B.Prabhu	CELPP1605P	-	M.E	Sathyabama University	Computer Aided Design	01-06-2015	9.7	Assistant Professor	Assistant Professor	Regular	-	Y	_
28.	Mr. P. Senthil Kumar	DMHPS7854A	-	M.E	Sathyabama University	Computer Aided Design	23-06-2016	8.6	Assistant Professor	Assistant Professor	Regular	-	Y	-
29.	Mr. P. Karthikeyan	CDYPK7121H	-	M.E	VelTech Rangarajan Dr. Sakunthala R&D Institute of Science and Technology	Internal Combustion Engineering	15-06-2019	5.6	Assistant Professor	Assistant Professor	Regular	-	Υ	-

30.	Mr. K.Ashokkumar	BCFPA9000G	-	M.E	Anna University	Industrial Safety Engineering	01-06-2015	9.7	Assistant Professor	Assistant Professor		Regular	-	Υ	-
31.	Mr. P.Iyyan Paramananda m	ACYPI7571G	-	M.E	Anna University	Thermal Engineering	15-06-2016	8.6	Assistant Professor	Assistant Professor		Regular	_	Υ	-
32.	Mr. G. Gnanakumar	ANZPG6094L	-	M.E	Prist University Thanjavur	Manufacturing Technology	26-05-2014	10.7	Assistant Professor	Assistant Professor		Regular	-	Υ	-
33.	Mr. Amos Gamaleal David	AQIPD2503M	-	M.E	Bharath University	CAD/CAM	26-05-2014	10.7	Assistant Professor	Assistant Professor		Regular	-	Υ	-
34.	Mr. S. Louies Praveen	FPPPS4096F	-	M.E	Anna University	Computer Aided Design	18-07-2013	11.5	Assistant Professor	Assistant Professor		Regular	-	Υ	-
35.	Mr. B. Bradley Bright	AVPPB9195H	-	M.E	Anna University	Engineering Design	26-05-2014	10.7	Assistant Professor	Assistant Professor		Regular	_	Υ	-
36.	Mr. V. Sharun	FSGPS1256D	-	M.E	Anna University	Manufacturing Engineering	02-06-2014	10.7	Assistant Professor	Assistant Professor		Regular	-	Υ	-
37.	Mr. S. Santhosh Kumar	FOIPS6704E	-	M.E	Anna University	CAD/CAM	02-06-2014	10.7	Assistant Professor	Assistant Professor		Regular	-	Υ	-
38.	Mr. M. Selvakumar	EVAPS2936G	-	M.E	Sathyabama University	Computer Aided Design	17-05-2016	8.7	Assistant Professor	Assistant Professor		Regular	-	Υ	-
39.	Mr. K.Rajakarthikeyan	BPCPR9156J	-	M.E	Sathyabama University	Computer Aided Design	03-06-2013	11.7	Assistant Professor	Assistant Professor		Regular	-	Υ	-
40.	Dr. S. Chezhianbabu	AFKPC1833N	-	PhD	Anna University	Automobile Engineering	02-06-2003	21	Assistant Professor	Professor	01-07-2008	Regular	-	N	31-05-2024
41.	Dr. D. Mohan gift	АМРРМ8674Н	-	PhD	Anna University	Engineering Design	01-07-2011	12.11	Associate Professor	Professor	28-11-2016	Regular	-	N	31-05-2024
42.	Dr. B.Balamugundan	ANDPB9503D	-	PhD	Sathyabama University	Refrigeration& Air conditioning	08-05-2007	17	Assistant Professor	Professor	01-06-2015	Regular	-	N	31-05-2024
43.	Dr. K.T. Anand	AEBPA5137R	-	PhD	Sathyabam a Institute of Science and Technology	Computer Aided Design	12-08-2022	1.9	Professor	Professor		Regular	-	N	31-05-2024
44.	Dr. R.Sathiyamoorthi	BHWPS4580H	-	PhD	Anna University	Thermal Power Engineering	07-06-2013	10.11	Assistant Professor	Professor	01-07-2022	Regular	-	N	31-05-2024

45.	Dr. M. Dinesh Babu	AJGPD1642J	-	PhD	Anna University	Energy Systems Engineering	08-06-2016	7.11	Associate Professor	Professor	01-07-2022	Regular	-	N	31-05-2024
46.	Dr. A.Premkumar	CATPP7947Q	-	PhD	Anna University	Manufacturing Engineering	05-08-2013	10.9	Assistant Professor	Associate Professor	03-08-2020	Regular	-	N	31-05-2024
47.	Mr. J.Srinivas	EVLPS0770M	-		Anna University	Industrial Engineering	29-05-2015	9	Associate Professor	Associate Professor		Regular	-	N	31-05-2024
48.	Dr. R. Suthan	CMQPS5250Q	-	PhD	Saveetha Institute of Medical And Technical Sciences	Thermal Engineering	08-06-2016	7.11	Assistant Professor	Assistant Professor		Regular	-	N	31-05-2024
51.	Mr. C.Vinothkumar	AUGPV5473L	-	M.E	Sri Chandrasekh arendra Saraswathi Viswa Mahavidyala ya University	Thermal Engineering	29-05-2015	9	Assistant Professor	Assistant Professor		Regular	-	N	31-05-2024
52.	Mr. A.S.Manipandi	BVKPS7015R	-	M.E	Anna University	Computer Aided Design	29-05-2015	9	Assistant Professor	Assistant Professor		Regular	-	N	31-05-2024
53.	Mr. M. Raghupathi	ALFPR5760G	-	M.E	Sathyabama University	Computer Aided Design	27-05-2013	10	Assistant Professor	Associate Professor	01-06-2015	Regular	-	N	31-05-2023
54.	Mr. T. S. Senthil	DEVPS1323J	-	M.E	Anna University	Manufacturing Engineering	03-06-2013	9.11	Assistant Professor	Associate Professor	28-11-2016	Regular	-	N	31-05-2023
55.	Mrs .J. Sofia Vincent	CXWPS9182C	-	M.E	St. Peter's University	CAD/CAM	08-02-2010	13.3	Assistant Professor	Associate Professor	01-06-2017	Regular	-	N	31-05-2023
56.	Mr. N. Balaji	BVLPB3569A	-	M.E	Anna University	CAD/CAM	08-06-2016	6.11	Assistant Professor	Assistant Professor		Regular	-	N	30-05-2023
57.	Mr. S. Devaraj	AVOPD9147N	-	M.E	Anna University	Engineering Design	08-06-2016	6.11	Assistant Professor	Assistant Professor		Regular	-	N	30-05-2023
58.	Mr.K.Elavarasan	ABAPE4699N	-	M.E	Dr. M G R University	CAD/CAM	01-06-2015	9	Assistant Professor	Assistant Professor		Regular	-	N	31-05-2024
59.	Mr. K.Rajesh	BRNPR1738M	-	M.E	Anna University	Manufacturing Engineering	09-02-2019	4.3	Assistant Professor	Assistant Professor		Regular	-	N	30-05-2023

60. Mr. S.Vigneshkumar	ARCPV2066L	-	M.E	SRM University	Computer Integrated Manufacturing	11-02-2019	4.3	Assistant Professor	Assistant Professor	Regular	-	N	30-05-2023
61. Mr. M.Bharaneedharar	AVLPM2628Q	-	MS	University of Plymouth	Mechanical Engineering	23-06-2018	4.11	Assistant Professor	Assistant Professor	Regular	-	N	30-05-2023
62. Mr. S.Karthikeyan	CUGPK4170D	-	M.E	Anna University	CAD/CAM	25-06-2018	4.11	Assistant Professor	Assistant Professor	Regular	-	N	30-05-2023
63. Mr. S.Saravana Prakash	BSQPS1199M	-	M.E	Anna University	Thermal Engineering	11-02-2019	4.3	Assistant Professor	Assistant Professor	Regular	-	N	30-05-2023
64. Mr. R.Michael Jackson	CUVPM0577M	-	M.E	Anna University	Manufacturing Engineering	11-02-2019	4.3	Assistant Professor	Assistant Professor	Regular	-	N	30-05-2023
65. Mr. N.Subramonian	BPVPS6360E	-	M.E	Anna University	Engineering Design	11-02-2019	4.3	Assistant Professor	Assistant Professor	Regular	-	N	30-05-2023
66. Mr. R.Bergin	CVXPB7338A	-	M.E	Anna University	Thermal Engineering	11-02-2019	4.3	Assistant Professor	Assistant Professor	Regular	-	N	30-05-2023
67. Mr. Subhash M	CTXPS8293P	-	M.E	Anna University	Manufacturing Engineering	25-06-2018	4.11	Assistant Professor	Assistant Professor	Regular	-	N	30-05-2023
68. Mr. M. Karthikganesh	AZNPK9268Q	-	M.E	VelTech Rangaraja nDr. Sakunthala R&D Institute of Science and Technology	Internal Combustion Engines	23-06-2018	4.11	Assistant Professor	Assistant Professor	Regular	-	N	30-05-2023
69. Mr. B. Dharumamuni	ALYPD7762K	-	M.E	Anna University	CAD/CAM	25-06-2018	4.11	Assistant Professor	Assistant Professor	Regular	-	N	30-05-2023
70. Mr. K. Rajesh	AYEPR3356A	-	M.E	Anna University	Engineering Design	25-06-2018	4.11	Assistant Professor	Assistant Professor	Regular	-	N	30-05-2023
71. Mr. D. Saravanan	CUVPS3698P	-	M.E	Anna University	CAD/CAM	25-06-2018	4.11	Assistant Professor	Assistant Professor	Regular	-	N	30-05-2023
72. Mr. V.Vignesh	ATEPV2193G	-	M.E	Anna University	Manufacturing Engineering	12-02-2019	4.3	Assistant Professor	Assistant Professor	Regular	-	N	30-05-2023
73. Mr. T.RaoSurtani	BACPT4013K	-	M.E	Anna University	Engineering Design	12-02-2019	4.3	Assistant Professor	Assistant Professor	Regular	-	N	30-05-2023

74. Mr. M.MurshalAhamed	CCOPM3189C	-	M.E	SRM University	Energy Engineering	12-02-2019	4.3	Assistant Professor	Assistant Professor		Regular	-	N	30-05-2023
75. Mr. K.Sathish	GRRPS2095K	-	M.E	Anna University	CAD/CAM	11-02-2019	4.3	Assistant Professor	Assistant Professor		Regular	-	N	30-05-2023
76. Dr. V. Sivaraman	AQAPS4730M	-	PhD	Sathyabam a University	CAD	14-06-2023	0.11	Associate Professor	Associate Professor		Regular	-	N	31-05-2024
77. Mr. V. K. Girish	AJLPG9172D	-	M.E	Sathyabam a University	CAD	14-06-2023	0.11	Assistant Professor	Assistant Professor		Regular	-	Ν	31-05-2024
78. Mr. R.Bharathiraja	CFHPB4235G	-	M.E	Anna University	Automobile Engineering	01-06-2017	5.11	Assistant Professor	Assistant Professor		Regular	-	N	30-05-2023
79. Mr. T. Praveenkumar	BQFPP1048F	-	M.E	Anna University	Manufacturing Engineering	12-09-2019	3.8	Assistant Professor	Assistant Professor		Regular	-	N	30-05-2023
80. Mr. V. Rajangam	AZOPR2708P	-	M.E	Anna University	Energy Engineering	17-06-2015	9.5	Assistant Professor	Assistant Professor		Regular	-	N	12-12-2024
81. Mrs. B.Krishnakumari	BCDPB7154C	-	M.E	Anna University	Hydrology and Water Resource s	28-05-2012	12.7	, Assistant Professor	Associate Professor	01-06-2013	Regular	-	N	
82. Mr. A.Venkatesan	ATGPV1609P	-	M.E	Anna University	Structural Engineering	22-05-2013	11.8	Assistant Professor	Associate Professor	28-11-2016	Regular	-	N	
83. Mr. N. Vijayasharathi	AOVPV3039D	-	M.E	Anna University	Energy Engineering	08-06-2023	0.1	Assistant Professor	Assistant Professor		Regular	-	Ν	31-05-2024
84. Mr. A. Suheal	EHAPS0152N	-	M.E	St.Peter's University	CAD/CAM	17-06-2015	8	Assistant Professor	Assistant Professor		Regular	-	N	30-06-2023
85. Mr. M. Senthil Prabhu	EMQPS2688Q	-	M.E	Anna University	Internal Combustion Engineering	01-12-2016	7.6	Assistant Professor	Assistant Professor		Regular	-	N	22-06-2024
86. Mr. T. Surendhar	HBGPS7642N	-	M.E	Anna University	Manufacturing Engineering	15-06-2016	7.11	Assistant Professor	Assistant Professor		Regular	-	N	31-05-2024
87. Mr. S Hariharan	AKXPH5252Q	-	M.E	St. Peter's University	Engineering Design	15-06-2016	7.11	Associate Professor	Associate Professor		Regular	-	N	31-05-2024
88. Mr. D.Nithyanand	ALSPN0728P	-	M.E	Anna University	Manufacturing Engineering	29-05-2015	9	Assistant Professor	Associate Professor	01-06-2016	Regular	-	N	29-05-2024
89. Mr. T.Rajendiran	BOMPR2732H	-	M.E	Anna University	CAD/CAM	01-06-2015	9	Assistant Professor	Assistant Professor		Regular	-	N	05-06-2024

90. Mr. M. Anandasimhan	BBUPA2007H	-	M.E	SRM University	Computer Aided Design	01-08-2022	0.11	Assistant Professor	Assistant Professor	Regular	-	N	31-07-2023
91. Mr. S. Kaushik Rathan	DPFPK3979R	-	M.E	Anna University	Engineering Design	17-06-2015	8	Assistant Professor	Assistant Professor	Regular	-	N	30-06-2023
92. Mr. R. Krishna Kumar	APJPK8755N	-	M.E	Sathyabam a Institute of Science and Technology	Computer Aided Design	01-08-2022	0.11	Assistant Professor	Assistant Professor	Regular	-	N	31-07-2023
93. Mr. C.Velmurugan	AVFPV7625Q	-	M.E	Anna University	Engineering Design	26-05-2014	10	Assistant Professor	Assistant Professor	Regular	-	N	31-05-2024
94. Mr. K. Sathish	FFFPS8955P	-	M.E	Anna University	Computer Aided Design	01-07-2016	7	Assistant Professor	Assistant Professor	Regular	-	N	30-06-2023
95. Mr. R.Ashok	BXWPA5476L	-	M.E	Anna University	Thermal Engineering	01-06-2016	8	Assistant Professor	Assistant Professor	Regular	-	N	31-05-2024
96. Mr. R. Agasthee Jain	AVCPA2514L	-	M.E	Anna University	Engineering Design	01-07-2016	7	Assistant Professor	Assistant Professor	Regular	-	N	30-06-2023
97. Mr. D.Rajesh	CBQPR3776M	-	M.E	Anna University	Energy Engineering	17-06-2015	8.11	Assistant Professor	Assistant Professor	Regular	-	N	15-05-2024
98. Mr. P.Arthis	BNBPA8474P	-	M.E	Anna University	Automobile Engineering	01-07-2016	7.11	Assistant Professor	Assistant Professor	Regular	-	N	31-05-2024
99. Mr. L. S. Thamizhselvan	BAQPT5390D	-	M.E	Anna University	Refrigeration and Air Conditioning	01-07-2016	7	Assistant Professor	Assistant Professor	Regular	-	N	30-06-2023

Table	No.C2: Faculty	details of Allied D	epartments for	r the pa	st 3 yea	rs including CAY	1
						·	

S.NO	Name of the Faculty	PAN No.	APAAR faculty ID*(if	Highest degree	University	Area of Specialization	Date of Joining in this Institution	Experience in years in current	Designation at Time Joining in this Institution	Present Designation	The date on which Designated as Professor/ Associate Professor ifany	Nature of Association (Regulary Addition)	If contractual mention Full time or(Part time	Currently Associated	Date of Leaving if any (In caseCurrently Associated	
							NA									

#### 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 2<sub>nd</sub> 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):
  - $\triangleright$  PG<sub>1</sub>=1<sup>st</sup> PG program.
  - ▶ PG<sub>m</sub>=m<sup>th</sup> PG program
    - A= No. of Students in PG 1<sup>st</sup> year
    - B= No. of Students in PG 2<sup>nd</sup> 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)).

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

Year	<b>CAY</b> (2024-25)	CAYm1 (2023-24)	CAYm2 (2022-23)
UG <sub>1</sub> . B // 2 <sup>nd</sup> year students of UG <sub>1</sub> program	192	264	330
$UG_1$ . C // $3^{nd}$ year students of $UG_1$ program	264	330	396
$UG_1$ . D // $4^{th}$ year students of $UG_1$ program	330	396	396
$UG_1$ // Total no.of students( $2^{na}$ , $3^{ra}$ , $4^{tn}$ ) in $UG_1$ program	786	990	1122
$PG_1$ . A // $1^{st}$ year students of $PG_1$ program	-	-	-
PG <sub>1</sub> . B // 2 <sup>nd</sup> year students of PG <sub>1</sub> program	-	-	-
PG <sub>1</sub> // Total no.of students(1 <sup>st</sup> , 2 <sup>nd</sup> ) in PG <sub>1</sub> program	-	-	-
DS=Total no. of students in all UG and PG programs in the Department	786	990	1122
AS=Total no. of students of all UG and PG programs in allied departments	-	-	-
S=Total no. of students in the Department (DS) and allied departments (AS)	786	990	1122
DF=Total no. of faculty members in the Department	41	66	94
AF= Total no. of faculty members in the allied Departments	-	-	1
F=Total no. of faculty members in the Department (DF) and allied Departments (AF)	39	56	75
FF=The faculty members in F who have a 100% teaching load in the first-year courses	02	10	19
Student Faculty Ratio (SFR)=S/(F-FF)	20.15	17.67	14.96
Average SFR for 3 years		17.59	

#### 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	FQI= 2.5 * [(10X +4Y)/RF]
<b>CAY</b> (2024-25)	16	23	40	15.75
<b>CAYm1</b> (2023-24)	23	33	53	17.07
<b>CAYm2</b> (2022-23)	19	56	60	17.25

#### 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.

rable No.C4.11. Faculty cause proportion details.									
	Profe	essors	Associate Profe	essors	Assistant I	Professors			
	Required Faculty(RF1)	Available Faculty(AF1)		Available Faculty(AF2)	•	Available Faculty(AF3)			
<b>CAY</b> (2024-25)	4	11	8	1	28	27			
<b>CAYm1</b> (2024-25)	6	16	12	4	36	36			
CAYm2 (2022-23)	7	16	14	3	39	56			
Average Numbers	RF1=6	AF1=14	RF2=11	AF2=3	RF3=34	AF3=40			

### 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.

S.N.	Name of the		Name of the Course	No. of hours handled
	Person	Organization		
		CAYm1 (2	2023-24)	
1	Mr.K.Neethiselvan	Manager - Production Thai Summit Auto Parts India Pvt Ltd	Total Quality Management	15
2	Mr.C Kesan	Managing Director Udhayaa Builders LtdChennai	Metrology & Measurements	15
3	Mr. P. Umasankar	Manager CSC India, Chennai	Human Values	15

4		Executive Director	Hydraulics And	
	Mr P.Thendral Selvan	Industrial Systems And Equipment Ltd	Pneumatics	15
		,	Total no. of hours:	60
		CAYm2 (2	2022-23)	
1	Mr.K.Neethiselvan	Manager - Production Thai Summit Auto Parts India Pvt Ltd	Total Quality Management	15
2	Mr.C Kesan	Managing Director Udhayaa Builders LtdChennai	Metrology &Measurements	15
3	Mr. P. Umasankar	Chennai Human Values		15
4	Mr P.Thendral Selvan	Executive Director Industrial Systems And Equipment Ltd	Hydraulics And Pneumatics	15
			Total no. of hours:	60
		CAYm3 (20	021-2022)	
1	Mr.K.Neethiselvan	Manager - Production Thai Summit Auto Parts India Pvt Ltd	Total Quality Management	15
2	Mr.C Kesan	Managing Director Udhayaa Builders LtdChennai	Metrology &Measurements	15
3	Mr. P. Umasankar	Manager CSC India, Chennai	Human Values	15
4	Mr P.Thendral Selvan Industrial And Equip		Hydraulics And Pneumatics	15
		1	Total no. of hours:	60

# **C6:** Academic Research

Table No. C6.1: Faculty publication details.

S.N.	Item	CAYm1 2023-24	CAYm2 2022-23	CAYm3 2021-22
1	No. of peer reviewed journal papers published	81	77	41
2	No. of peer reviewed conference papers published	45	24	20
3	No. of books/book chapters published	7	2	-

# **C7:** Sponsored Research Project

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

-	PI	Co-PI			Name of the	Duration of	Amount
S. N.	name	Names if any	Name of the Dept.,	Project title*	Name of the Funding	the project	(Lacs)
14.	Hallie	ivallies if ally	Where	uue.	agency	the project	(Lacs)
			Project is		agency		
			sanctioned				
				2023-24)			
1				Design of			
				Dust			
				Suppression			
				and	PSP	1)/ (E-k-22	
	Dr.R.Murugan	Dr.I.John	Mechanical	Efficiency	Infrastructure,	1Year (Feb 23-	4.5
		Solomon		enhancement system for	Chennai	Jan 24)	
				small scale			
				stone			
				crusher unit			
2				Zeolite			
				drivenCO <sub>2</sub>			
				Transformat			
				ion:			
			Mechanical	Sustainable		9 Months (July	
	Dr.M.Puviyarasan	Dr.L.Karthikeyan		solutions for	Kals Rises PvtLtd	23- March 24)	2
		,		carbon		,	
				capture			
				and			
				conversion			
3				Thermodyna			
				mic			
			Mechanical	Generator-to		6 Months (June	
		Dr.L.Karthikeyan		convert			
	Dr.G.Senthilkumar			waste heat	Heat &Control	23-Dec 23)	1.75
				energy into		-5 - 55 - 57	
				electrical			
				energy			
		<u> </u>			I	I	0.25
		Аг	nount received				8.25
			CAY	/m2			
1				Nil			
					Amount i	received (Rs.)	
			CAY	/m3			
1				Nil			
					Amount :	received (Rs.)	
-							0.5-
			Total Am	ount (Lacs)	Received for the	Past 3 Years	8.25

# **C8:** Consultancy Work

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

6 N	PI name	Co-PI	Name of	Project title*	e* Name of the Duration of			
5.N	F1 Hallie	names	the Dept.,	Project title*	Funding	the project	Amount (Lacs)	
•		if any	where		agency	the project	(Lacs)	
		,	project is		g y			
			sanctioned					
			CAYm	1 (2023-24)				
1				Evaluating the				
				Tensile Strength				
				andHardness of				
				Specimen	Unitive	5 Jan - 29		
	Dr G.Senthilkumar	_	Mechanical	Manufactured by	Technologies	March2024	0.89	
	2. 0.00mmmamam		- i conanicar	Laser Metal	Private Limited		0.03	
				Deoposition	Trivate Limited	(3 months)		
				(LMD)				
				Technology				
2				Analysis of				
				Serpentine				
	Dr. I. Karthikayan			Micro Channel	John	8 Aug - 29		
	Dr. L.Karthikeyan	_	Mechanical	Heat	Engineering	Nov 2023	0.72	
				Exchanger	Works	(4 months)		
				Using Nano	110110	(+ illolluis)		
				Fluids				
3				Reducing the				
				surface	Kale Bisse D:±	July 23 –		
	Dr.K.Yesuraj	_	Mechanical	roughness	Kals Rises Pvt	Dec 23 (6	1.30	
				sleeves used in	Ltd	months)		
				casting		inonuis)		
				process				
4				Thermal				
				Performance				
				Study of Solar				
				Receiver Using		5 July - 20		
	Dr. K.Thiruselvam			Rectangular	Embrace	Oct 2023		
		-	Mechanical	Tubular And	Techno	(4	1.72	
				Wavy Fins for	Solutions	months)		
				Parabolic Dish				
				Collector	A	received (Da )	4.63	
					Amount	received (Rs.)	4.03	
_		ı	CAYm	2 (2022-23)		,		
1				Economical				
				Analysis of				
	Mr. J.Gunasekaran			Coconut Shell	Prompt Vac	2 Feb -27		
	. III Si Gariasekaran	_	Mechanical	Charcoal	Engineerin g	April 2023	1.68	
				Briquettes by	Chennai	(3 months)		
				Implementin g		(Simulais)		
				Boiler and				
L_				Steam				
2				Thermal and				
				Flow Analysis				

				of Enhancing				
	Dr. R.Murugan	-	Mechanical	Engine Cooling Performance Through Novel Fin Geometry	Unitive Technologi es Private Limited	6 July - 12 Oct 2022 (4 months)	1.89	
3	Dr. M.Puviyarasan	-	Mechanical	Mechanical Behaviour of Additively Manufacture d SS316L Components	Top Engineers	21 July - 25 Nov 2022 (5 months)	1.72	
4	Mr.P.Sriram	-	Mechanical	Mechanical characterizati on of carbon fibre peek fabricated by FDM	Metmech Engineers Chennai	Aug 22- Jan 23 (6 months)	1.35	
5	Mr.V.Rajangam	-	Mechanical	Analysis of Delaminatio n nature of adhesive joints	Barzo Industries Chennai	Aug 22- Jan 23 (6 months)	1.26	
					Amount i	received (Rs.)	7.9	
			CAYm3	3 (2021-2022)				
1	Dr. K. R.Padmavathi	-	Mechanical	FEA Analysis and Experimental Investigation of Leaf Spring With Polymer Composite for Automotive Suspension System	Prompt vac Engineering Chennai	8 Feb - 28 April 2022 (3 months)	1.54	
2	Dr. A.Anbarasu	-	Mechanical	Design And Analysis of Cooling System in Lithium-Ion Batteries Packs	Unitive Technologi es Private Limited	7 Jan - 30 March 2022 (3 months)	1.97	
	-				Amount	received (Rs.)	3.51	
Total amount (Lacs) received for the past 3 years								

# 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.

S.N	Faculty name	Project title/ Support for Activity	Duration	Amount (Lacs)	Amount Utilized (Lacs)	Outcomes of the project						
		C	AYm1 (2023-	2024)								
1	Dr.G.Senthilkumar	Friction Welding- Parameter Optimization	6 months	1.25 lakh	1.25 lakh	Paper Published in SCI Journal						
2	II)r M PHVIVarasan	Automatic Flow Arrester	6 months	1.15 lakh	1.15 lakh	Patent Published						
	Amount received (Rs.) 2.4 Lakhs											
	CAYm2 (2022-2023)											
1	Dr.R.Murugan	Effect of Cyclic Loading on FRP Composites	6 months	1.5 lakh	1.5 lakh	Paper Published in SCI Journal						
2	Dr.I.John Solomon	Vehicle Overload Management System	6 months	1.00 lakh	1.00 lakh	Patent Published						
3	I I)r M Puvivarasan	Effect of Process Parameters on Friction Stir Processed Materials.	6 months	1.35 lakh	1.35 lakhs	Paper Published in SCI Journal						
		Amoun	t received (R	s.) 3.85 Lakhs								
			CAYm3									
1			Nil									
		Total amount (Lacs) re	ceived for the	e past 3 years	- 6.25Lakhs							

# 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.

S.N.	Name of the Laboratory	No. of studen	Name of the major equipment	Weekly utilization	Technical Ma	anpower sup	port
	,	ts per setup (Batch Size)		status (all the courses for which the lab is utilized)	Name of the technical staff	Designati on	Qualification
1	Strength of Materials and Fluid Mechanics Laboratory Courses: 23ME1312 - Strength of materials and Fluid Mechanics Laboratory	32	Universal testing machine, Torsion testing machine ,Spring testing machine, Rockwell hardness testing machine, Brinell hardnesstesting machine, Deflectiontest on beam equipment, Impact testing machine (Charpy& IZOD), Rosette strain gauge, Metallurgical microscope,Muffle Furnace, Orifice meter, Venturi meter, Rotameter, Pipe Flow analysis, Centrifugal pump,submergible	65 %	Mr. D. Sambath Kumar	Instructor	BE
2	Manufacturing Technology Courses: •23ME1311 - Manufacturing Processes Laboratory •23ME1411 - Metal Cutting and Machine Tools Laboratory	32	Lathe, Heavy Duty Lathe Milling Machine, Surface Grinding Machine, Slotter Machine. Heavy Duty Lathe, Lathe Tool Dynamometer, Capstan Lathe, Turret Lathe, Gear Shaper, Milling Machine, Planner, Surface Grinding Machine, Gear Hobbing Machine, Cylindrical Grinding Machine, Center less Grinding Machine, Tool Cutter Grinder, CNC Lathe, CNC Milling. Milling Machine, Surface Grinding Machine, Slotter Machine.	85 %	Mr.D.Subbu	Instructor	D.M.E
3	Thermal Engineering Lab  Courses:  23ME1413 - HeatEngines Laboratory  21ME1611 - Heat Transfer	32	Steam Boiler and Turbine, Four Stroke Single Cylinder Diesel Engine (1500 rpm),Four Stroke Single Cylinder Diesel Engine (650 rpm),Four Stroke Multi Cylinder Petrol Engine, Four Stroke Single Cylinder DieselEngine With	85 %	Mr. K.N. Sampathku mar	Instructor	D.M.E

	and RAC		Four Stroke Single				
	Laboratory						
	ŕ		Cylinder Diesel Engine				
			Cut Section Model, Two				
			Stroke Single Cylinder				
			Engine Cut Section				
			Model,Two stage air				
			compressor test rig,				
			Refrigeration Test rig,.				
			Fluidized bed cooling				
			tower apparatus				
			.Composite Wall				
			apparatus .Insulating				
			powder apparatus.				
			Forced convection				
			apparatus, Stefan-				
			Boltzmann apparatus,.				
			Lagged Pipe apparatus,				
			Natural Convection				
			apparatus, Thermal				
			Conductivity apparatus,				
			Emissivity apparatus,				
			HeatExchanger				
			apparatus, Pin-fin				
			apparatus.				
4			Transverse Vibration				
			Setup, Cam Analyzer, Spring Mass System,				
			Motorized Gyroscope,				
			Compound Pendulum,				
			Flywheel and				
			Connecting Rod				
		32	,Universal Governor				
		32	Setup, Turn Table Apparatus, Bifilar				
	Dynamics		Suspension System,				
	Laboratory		Vibrating Table				
	Courses		Apparatus, Torsional				
	Courses:		Vibration Setup,		M		
	21ME1512 - Mechanics of		Vibration Absorber	65%	Mr. K.Suresh	Instructor	DME
	Machines		Setup, Balancing of Rotating Masses,	05 /0	K.Suresii		
	Laboratory		Cantilever Vibration				
	,		Setup, Dynamic				
			Balancing Machine,				
			Whirling of Shaft Setup,				
			Board Model of Gear				
			Trains, Board Model				
			of Kinematics,				
			Board Model of				
<u> </u>	NA 1 1		Universal Joint.				
5	Metrology and		Vernier Caliper,				
	Measurement Lab		Micrometer Vernier Height Gauge, Slip				
	Lau		Gauge, Silp				
	Courses:		Comparator, Telescopic	65 %			
	21ME1512 -		Gauge,Profile Projector,		Mr.	Instructor	DME
	Metrology		Gear Tooth Vernier,		K.Suresh		
	Laboratory		Bevel Protector, Stain				
	,						

		32	Gauge Measuring Setup, Torque Measuring Setup, Temperature Measurements, Sine Bar Measuring Setup, Floating Carriage Measurements, Tool Maker Microscope, Vernier Depth Gauge, Bore Gauge Measurement, Internal Micrometer, Autocollima tor, Digital Micrometer				
6	CAM Laboratory  Courses: 21ME1612- Computer Aided Manufacturi ng Laboratory	32	HP Pro 6300 MT Desktop Intel Core I5- 3470,2X2 GB Ram,500 GB Hard disc, DVD-RW,HP USB Keyboard & Mouse, Free DOS, 20 " LED Monitor, NVIDIA GT 610 2 GB Graphic Card (38 NO'S),CNC Train Software (15 O'S), MTAB XLMILL MACHINE, MTAB XLTURN MACHINE, Transline 5 KVA UPS System.	85%	Mr. C. BalaMurugan	Instructor	ITI
7	Computer Aided Engineering Laboratory  Courses: • 23ME1412- Computer Aided Design Laboratory  • 21ME1711 - Simulation and Analysis Laboratory	32	IBM X3100-M4SERVER IBMX 3100M4 @3.1Hz GB server WITH ADDL.500GBHDD WITH ADDL. 4GBRAM LONOVO 21.5" MONOTOR 3. MAIN SERVER (INTEL XEON) MODEL. 57501HGO BIOS. 5750 1HGO V22.00 Processor , Intel (R) xenon(TM) cpu 2.40GHz ,Ram 512 DirectX9.0C(4.098.000 0.090 4) WITH MONITORSAMSUNG YNCMASER753S 4.7771- Intel core I5 2400 processor ,Intel 67BL M/B transcend 2GB DDR3 RAM Seagate 500GB SATA HDD LG 20" LED monitorMicrosoft USB kitASUS 512MB graphics card Mercury Grammy cabinet , Intel Pentium core 2 quad processor DG 43 NB chipset mother board.	85%	Mr. C. BalaMurugan	Instructor	ITI

8	Mechatronics Laboratory Courses: 21ME1712 - Mechatronics Laboratory	32	Basic Pneumatic Trainer Kit with manual and electrical controls/PLC Control ,Basic Hydraulic Trainer Kit, Hydraulics and Pneumatics system Simulation Software, 8051- Microcontroller kit with Stepper Motor and Drive circuit sets, Image Processing system with hardware and software, Traffic light interface,8085 microprocessor		Mr.G.Suresh Kumar	Instructor	BE
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# **D2: Safety Measures in Laboratories**

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

S.N.	Name of the Laboratory	Safety measures
		Know the location of the fire extinguisher and the first aid box and how to use them in case of an emergency.
		Read and understand how to carry out an activity thoroughly before coming to the laboratory.
		Report fires or accidents to your lecturer/laboratory technician immediately.
		Report any broken plugs or exposed electrical wires to your lecturer/ laboratory technician immediately.
1.	CAD lab	Avoid stepping on electrical wires or any other computer cables.
		Do not open the system unit casing or monitor casing
		Particularly when the power is turned on.
		Do not insert metal objects such as clips, pins and needles into the computer casings. They may cause fire.
		Do not remove anything from the computer laboratory without permission.
		Do not touch, connect or disconnect any plug or cable without permission.
		Follow all machine operating and maintenance instructions.
		Use appropriate personal protective equipment-such as safety glasses or goggles, respiratory protection and hearing protection.
		Keep hands away from all moving parts-at all times.
		Clean all tools after each use and store them properly.
	Manufacturing	Keep work area clean and well-lit.
2	Technology Lab	Don't wear loose clothing; Long hair must be tied back.
		Don't leave machines running without supervision. Turn the power off completely before leaving the work area.
		Don't use your hands to remove material from the machine; use a vacuum cleaner, brush or rake.
		Don't remove, disable, deactivate or try to work around machine guards and safety devices

		Wear always pants and safety shoes when you operate any engine.
		There should be no over-crowding.
		Make sure that you stay away from hot exhaust lines and moving parts of engines Before operating any machine, you must be aware of the following:  1. Location of fire extinguishers and the outside exits.  2. How the engine operates. Read instruction or manual before operating it.  3. How to turn off the engine in case of damages.
		When you hear or see a danger alarm from the engine that you using, stop the engine immediately.
		Make sure that there is no fuel or oil spill on the floor.
	Thermal	Consult the instructor for safety precautions to be followed.
3	engineering lab	Do not run inside the lab and concentrate on the present task.
		When moving heavy equipment's or gas cylinders, use carts
		Always use the right tools for the given task.
		Handle the tools and equipment's with extreme care and return the tools to their proper places.
		For cleaning tools or equipment's, use only the proper cleaner.
		Make sure there is no electric spark present.
		Do not leave fuels in open containers. Use the proper containers (safety cans) to carry fuels.
		Make sure that all gas cylinders are chained and well supported
		Before operating engine, make sure that there is no fuel or gas leakage.
		Always wear shoes before entering lab.
		Do not touch anything without the permission of instructor/lab assistant.
		Read carefully the lab manual before performing experiments.
		Check electrical connections before starting the equipment.
		Do not put your hands while the machine is in operation.
		Do not tamper measuring instruments.
		Do not open the casing of the equipment.
	Fluid mechanics&	Do not unplug any electrical connection.
4	Strength of Materials lab	Switch off the power supply to the experimental setup on completion of the experiment.
		Do not leave chemical containers on the working tables.
		Use safety goggles wherever necessary.
		Always wear close-toed shoes.
		Always wear a long-sleeved, non-flammable shirt.
		Always wear proper welding gloves.
		Always wear ear protection (earplugs or muffs) to prevent sparks from entering your ear canal. An eardrum punctured by a spark will instantly cauterize and never heal.
		Always wear shoes before entering in the lab.
5	Dynamics lab	Do not touch anything without the permission of instructor/ lab assistant.
		Read carefully the lab manual before performing experiments.

Do not tamper measuring instruments.  Do not open the casing of the equipment.  Switch off the power supply to the experimental setup on completion of the experiment.  Maintain clean and orderly laboratories and work area.  Be aware of the various experiment controls (start button, stop button, speed control) for each experiments.  Do not leave experiments running unattended.  Any injuries should be reported immediately for proper care  Be familiar with the location and use of the following safety devices:  First aid kit, Fire alarm, Fire extinguisher, Telephone.  Proper clothes and shoes must be worn in the laboratories  The working area is to be kept clean and free of personal belongings.  All equipment should be inspected before use.  Carefully examine the electrical power cords for safety hazards before connecting.  Keep the floor and equipment dry at all times.  Always power down the electrical equipment, disconnect the power cord, and wait for a few seconds before touching exposed wires.  Do not wear rings, watches, necklace, and any other loose metallic objects (electric shock hazard) while using electrical or electronic equipment or devices  New students are not permitted to use any lab equipment without prior training and the presence of the Faculty.  Use adjustable chairs and desks to maintain good posture.  Position monitors at eye level to reduce neck strain.  Organize and secure cables to prevent tripping hazards.  Use cable covers or ties to keep cords out of walkways.  Regularly check computers and peripherals for frayed cords or damaged Plugs.  Ensure all equipment is properly grounded.  Use surge protectors and avoid overloading power outlets.  Implement a routine for backing up important files to prevent data loss.  Install and regularly update antivirus and anti-malware software to protect against cyber threats  Ensure proper ventilation to prevent overheating of computers and equipment.  Keep fire extinguishers accessible and ensure staff know how to use them.  Maintain clear access to emerg		ı	
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Plugs.  Ensure all equipment is properly grounded.  Use surge protectors and avoid overloading power outlets.  Implement a routine for backing up important files to prevent data loss.  Install and regularly update antivirus and anti-malware software to protect against cyber threats  Ensure proper ventilation to prevent overheating of computers and equipment.  Keep fire extinguishers accessible and ensure staff know how to use them.  Maintain clear access to emergency exits.  Avoid food and drink in the lab to prevent spills and contamination of equipment.			Use cable covers or ties to keep cords out of walkways.
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Implement a routine for backing up important files to prevent data loss.  Install and regularly update antivirus and anti-malware software to protect against cyber threats  Ensure proper ventilation to prevent overheating of computers and equipment.  Keep fire extinguishers accessible and ensure staff know how to use them.  Maintain clear access to emergency exits.  Avoid food and drink in the lab to prevent spills and contamination of equipment.			Ensure all equipment is properly grounded.
Install and regularly update antivirus and anti-malware software to protect against cyber threats  Ensure proper ventilation to prevent overheating of computers and equipment.  Keep fire extinguishers accessible and ensure staff know how to use them.  Maintain clear access to emergency exits.  Avoid food and drink in the lab to prevent spills and contamination of equipment.	7	CAM Laboratory	Use surge protectors and avoid overloading power outlets.
against cyber threats  Ensure proper ventilation to prevent overheating of computers and equipment.  Keep fire extinguishers accessible and ensure staff know how to use them.  Maintain clear access to emergency exits.  Avoid food and drink in the lab to prevent spills and contamination of equipment.	'	CAM Laboratory	Implement a routine for backing up important files to prevent data loss.
Ensure proper ventilation to prevent overheating of computers and equipment.  Keep fire extinguishers accessible and ensure staff know how to use them.  Maintain clear access to emergency exits.  Avoid food and drink in the lab to prevent spills and contamination of equipment.			
Maintain clear access to emergency exits.  Avoid food and drink in the lab to prevent spills and contamination of equipment.			
Avoid food and drink in the lab to prevent spills and contamination of equipment.			Keep fire extinguishers accessible and ensure staff know how to use them.
			Maintain clear access to emergency exits.
Avoid distractions from mobile devices to maintain focus and safety.			Avoid food and drink in the lab to prevent spills and contamination of equipment.
			Avoid distractions from mobile devices to maintain focus and safety.

# D3: Project Laboratory/Research Laboratory

**Table No. D3.1:** List of project laboratory/research laboratory /Centre of Excellence.

S.N.	Name of the Laboratory						
1.	Centre of Excellence and Research in NVH and NDT						
2.	Digital Engineering Lab						
3.	IDEA LAB						
4.	Robotics Lab						
5.	Project Lab						

# PART E: Fist 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 require d faculty (RF4= S4/20)	No. of faculty members in Basic Science Courses & Humanities and Social Sciences including Management courses (NS1)	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))/RF4
CAY 2024-2025	3210	161	103	59	58.51
CAYm1 2023-2024	2940	147	99	49	60.54
CAYm2 2022-2023	2340	117	111	40	82.74

# 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 CFY 2024-25	Actual expenses in CFY 2024- 2025	Budgeted in CFYm1 2023-24	Actual Expenses in CFYm1 2023-24	Budgeted in CFYm2 2022-23	Actual Expenses in CFYm2 2022-23	Budgeted in CFYm3 2021-22	Actual Expenses in CFYm3 2021-22
Infrastruct ure Built- Up	1,50,00,000	1,02,32,801	55,00,000	48,47,947	60,00,000	56,00,338	60,00,000	52,45,010
Library	35,00,000	21,78,319	30,00,000	27,83,476	32,00,000	27,15,761	7,15,000	6,50,000
Laboratory equipment	6,00,00,000	3,27,54,265	5,85,00,000	5,68,95,680	5,00,00,000	4,89,24,525	2,10,00,000	1,77,40,593
Teaching and non- teaching staff salary	78,00,00,000	76,07,40,934	60,00,00,000	56,86,46,169	49,00,00,000	44,61,05,952	35,00,00,000	27,22,37,231
Outreach Programs	2,00,000	1,00,000	1,65,000	1,50,000	7,00,000	6,70,000	70,00,000	64,00,000
R&D	35,00,000	31,06,364	20,00,000	18,70,211	15,00,000	13,31,544	13,00,000	12,18,027
Training, Placement and Industry linkage	70,00,000	56,28,329	50,00,000	45,91,000	1,30,00,000	1,18,78,601	25,00,000	21,46,440
SDGs	2,00,000	1,20,756	1,20,000	99,100	75,000	62,250	55,000	48,500
Entrepren eurship	60,000	44,000	65,000	60,000	35,000	29,550	80,000	78,200
Others*,	58,00,00,000	51,99,34,274	42,00,00,000	39,73,21,552	45,25,00,000	35,74,25,839	15,25,00,000	12,17,52,548
Total amount (in Lakhs)	14,494.60	13,348.40	10,943.50	10,372.65	10,170.10	8,747.44	5,411.50	4,275.16

# 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 CFY 2024-25	Actual expenses in CFY 2024-25	Budgeted in CFYm1 2023-24	Actual Expenses in CFYm1 2023-24	Budgeted in CFYm2 2022-23	Actual Expenses in CFYm2 2022-23	Budgeted in CFYm3 2021-22	Actual Expenses in CFYm3 2021-22
Laboratory equipment	-	-	1,50,000	1,32,675	2,30,000	1,25,800	-	-
Software	1,50,000	1,55,800	1,80,000	1,66,725	2,00,000	1,88,920	1,15,000	88,620
SDGs	15,000	14,000	14,000	13,100	10,000	12,000	10,000	11,700
Support for faculty development	1,75,000	1,65,000	1,86,000	1,89,000	1,80,000	1,31,000	1,25,000	1,25,000
R & D	2,00,000	1,27,000	2,00,000	1,85,000	2,00,000	1,70,000	1,20,000	97,000
Industrial Training, Industry expert, Internship	10,000	8,000	50,000	37,000	30,000	13,000	40,000	39,100
Miscellaneous expenses *	60,000	50,000	90,000	85,600	70,000	35,000	30,000	30,230
Total amount	6,40,000	519800	8,70,000	8,09,100	9,20,000	6,75,720	4,40,000	3,91,650