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: 11118	**Date of Submission**: 13-11-2025

PART A- Profile of the Institute

A1.Name of the Institute: KARUNYA INSTITUTE OF TECHNOLOGY AND SCIENCES	
Year of Establishment : 1986/1990	Location of the Institute: Coimbatore
A2. Institute Address:KARUNYA NAGAR	
City:--Select--	State:Tamil Nadu
Pin Code:641114	Website:www.karunya.edu
Email:KU@KARUNYA.EDU	Phone No(with STD Code):0422-2614310
A3. Name and Address of the Affiliating University (if any):	
Name of the University : NIL	City:
State :	Pin Code: 0
A4. Type of the Institution: Deemed University	
A5. Ownership Status: Self financing	

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

- No. of UG programs: **15**
- No. of PG programs: **13**

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	PG	Advanced Manufacturing Technology	2015	2023	Mechanical Engineering
2	Engineering & Technology	UG	Aerospace Engineering	2009	--	Aerospace Engineering
3	Engineering & Technology	PG	Aerospace Engineering	2019	--	Aerospace Engineering
4	Engineering & Technology	UG	Artificial Intelligence and Data Science	2020	--	Data Science and Cyber Security
5	Engineering & Technology	UG	Biomedical Engineering	2014	--	Biomedical Engineering
6	Engineering & Technology	PG	Biomedical Instrumentation	2017	--	Biomedical Engineering
7	Engineering & Technology	UG	Biotechnology	2005	--	Biotechnology
8	Engineering & Technology	PG	Biotechnology	2007	--	Biotechnology
9	Engineering & Technology	UG	Civil Engineering	1986	--	Civil Engineering
10	Engineering & Technology	PG	Communication Systems	2009	2022	Electronics and Communication Engineering
11	Engineering & Technology	UG	Computer Engineering	2020	--	Data Science and Cyber Security
12	Engineering & Technology	PG	Computer Science and Engineering	2002	--	Computer Science and Engineering
13	Engineering & Technology	UG	Computer Science and Engineering	1994	--	Computer Science and Engineering

14	Engineering & Technology	UG	Computer Science and Engineering (Artificial Intelligence & Machine Learning)	2021	--	Artificial Intelligence and Machine Learning
15	Engineering & Technology	UG	Computer Science and Engineering (Artificial Intelligence)	2021	--	Artificial Intelligence and Machine Learning
16	Engineering & Technology	PG	Cyber Security	2019	--	Computer Science and Engineering
17	Engineering & Technology	UG	Electrical & Electronics Engineering	1994	--	Electrical and Electronics Engineering
18	Engineering & Technology	UG	Electronics & Communication Engineering	1986	--	Electronics and Communication Engineering
19	Engineering & Technology	UG	Electronics & Computer Engineering	2021	--	Electronics and Communication Engineering
20	Engineering & Technology	UG	Food Processing and Engineering	2005	--	Food Processing Technology
21	Engineering & Technology	PG	Food Processing and Engineering	2008	--	Food Processing Technology
22	Engineering & Technology	PG	Integrated Water Resources Management	2009	--	Civil Engineering
23	Engineering & Technology	UG	Mechanical Engineering	1986	--	Mechanical Engineering
24	Engineering & Technology	PG	Robotics & Automation	2020	--	Robotics Engineering
25	Engineering & Technology	UG	Robotics and Automation	2018	--	Robotics Engineering
26	Engineering & Technology	PG	Structural Engineering	1996	--	Civil Engineering
27	Engineering & Technology	PG	VLSI Design	2004	--	Electronics and Communication Engineering
28	Management	PG	Master of Business Administration	1994	--	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
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 ARROVAL DETAILS
1	Mechanical Engineering	UG	1986 / --	60	Yes	2019	60	2019	Southern/1-4262308240/2019/E(1

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 ARROVAL DETAILS

Sanctioned Intake for Last Five Years for the Mechanical Engineering	
Academic Year	**Sanctioned Intake**
2025-26	60
2024-25	60
2023-24	60
2022-23	60
2021-22	120
2020-21	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. A. Brusly Solomon
B. Nature of appointment:	Regular
C. Qualification:	Ph.D

B3. Program Details

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

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	2025-26 (CAY)	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)	2021-22 (CAYm4)	2020-21 (CAYm5)	2019-20 (CAYm6)
N=Sanctioned intake of the program (as per AICTE /Competent authority)	60	60	60	60	60	120	120
N1=Total no. of students admitted in the 1st year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program	36	32	47	31	32	47	89
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	2	6	5	6	2	12
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	1	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.	37	34	53	36	38	49	101

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

B4. Enrolment Ratio in the First Year

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

Year of entry	N (From Table 4.1)	N1 (From Table 4.1)	N4 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2025-26 (CAY)	60	36	1	61.67
2024-25 (CAYm1)	60	32	0	53.33
2023-24 (CAYm2)	60	47	0	78.33

Average [(ER1 + ER2 + ER3) / 3] = 64.44≡ 11.00

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

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

Item	(2021-22) LYG	(2020-21) LYGm1	(2019-20) LYGm2
A*= (No. of students admitted in the 1st year of that batch and those actually admitted in the 2nd year via lateral entry, plus the number of students admitted through multiple entry (if any) and separate division if applicable, minus the number of students who exited through multiple entry (if any).	66.00	122.00	132.00
B=No. of students who graduated from the program in the stipulated course duration	38.00	49.00	101.00
Success Rate (SR)= (B/A) * 100	57.58	40.16	76.52

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 58.09

B6. Academic Performance of the First-Year Students of the Program

Table No.B6.1: Academic Performance of the First-Year Students of the Program.

Academic Performance	CAYm1(2024-25)	CAYm2(2023-24)	CAYm3 (2022-23)
X=(Mean of 1st year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 1st year/10)	6.82	6.75	6.87
Y=Total no. of successful students	32.00	45.00	33.00
Z=Total no. of students appeared in the examination	32.00	47.00	31.00
API [X*(Y/Z)]	6.82	6.46	7.31

Average API[(AP1+AP2+AP3)/3] : 6.86

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

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

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
X=(Mean of 2nd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 2rd year/10)	6.85	6.90	6.93
Y=Total no. of successful students	53.00	37.00	38.00
Z=Total no. of students appeared in the examination	51.00	38.00	40.00
API [X * (Y/Z)]	7.12	6.72	6.58

Average API [(AP1 + AP2 + AP3)/3] : 6.81

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

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

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
X=(Mean of 3rd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 3rd year/10)	6.90	6.94	6.70
Y=Total no. of successful students	36.00	38.00	49.00
Z=Total no. of students appeared in the examination	37.00	38.00	50.00
API [X*(Y/Z)]:	6.71	6.94	6.57

Average API [(AP1 + AP2 + AP3)/3] : 6.74

B9. Placement, Higher Studies, and Entrepreneurship

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

Item	LYG (2021-22)	LYGm1(2020-21)	LYGm2(2019-20)
FS*=Total no. of final year students	66.00	122.00	132.00
X=No. of students placed	35.00	47.00	99.00
Y=No. of students admitted to higher studies	3.00	4.00	4.00
Z= No. of students taking up entrepreneurship	0.00	0.00	0.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	57.58	41.80	78.03

Average Placement Index = (P_1 + P_2 + P_3)/3: 59.14 Placement Index Points:

PART C: Faculty Details in Department and Allied Departments

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

C1. Faculty details of Department and Allied Departments

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

Sr.No	Name of the Faculty	PAN No.	Highest degree	University	Area of Specialization	Date of Joining in this Institution	Experience in years in current institute	Designation at Time Joining in this Institution	Present Designation	The date on which Designated as Professor/ Associate Professor if any	Nature of Association (Regular/ Contract/ Ad hoc)	Currently Associated (Y/N)
1	Dr. A. Brusly Solomon	XXXXXXX41D	Ph.D	Karunya Institute of Technology and Sciences	Thermal Engg	13/07/2006	19.4	Assistant Professor	Associate Professor	21/07/2018	Regular	Yes
2	Dr. S.J. Vijay	XXXXXXX47A	Ph.D	Anna University	CAD/CAM	13/06/2005	20.5	Lecturer	Professor	02/08/2021	Regular	Yes
3	Dr. L. Godson Asirvatham	XXXXXXX97Q	Ph.D	Anna University	Thermal Engg	21/11/2002	22.11	Lecturer	Professor	01/05/2017	Regular	Yes
4	Dr. P. Sam Paul	XXXXXXX67K	Ph.D	Karunya Institute of Technology and Sciences	Vibration	01/06/2001	24.5	Lecturer	Professor	01/05/2017	Regular	Yes
5	Dr. R. Raja	XXXXXXX81M	Ph.D	Anna University	Manufacturing	13/01/2000	25.10	Lecturer	Associate Professor	02/08/2021	Regular	Yes
6	Dr. Gadudasu Babu Rao	XXXXXXX62K	Ph.D	Karunya Institute of Technology and Sciences	Medical Robotics	24/03/2008	17.7	Assistant Professor	Associate Professor	02/08/2021	Regular	Yes
7	Dr. B. Jefferson Raja Bose	XXXXXXX33J	Ph.D	Karunya Institute of Technology and Sciences	Thermal Energy	12/04/2002	23.7	Lecturer	Associate Professor	01/12/2020	Regular	Yes
8	Dr. Rajakumar S. Rai	XXXXXXX57M	Ph.D	Anna University	CAD	31/01/2003	22.9	Lecturer	Assistant Professor		Regular	Yes
9	Dr. S. Joseph John Marshal	XXXXXXX95N	Ph.D	Karunya Institute of Technology and Sciences	Biomas Energy	13/06/2005	20.5	Lecturer	Assistant Professor		Regular	Yes
10	Dr. M. Wilson Kumar	XXXXXXX02M	Ph.D	Karunya Institute of Technology and Sciences	Industrial Ergonomics	01/08/2006	19.3	Lecturer	Assistant Professor		Regular	Yes
11	Dr. Sabitha Jannet	XXXXXXX42H	Ph.D	Anna University	Friction Stir Welding	18/06/2007	18.4	Lecturer	Assistant Professor		Regular	Yes
12	Dr. D. Arul Kirubakaran	XXXXXXX73L	Ph.D	NIT, Trichy	Production Engg	06/06/2019	6.5	Assistant Professor	Assistant Professor		Regular	Yes
13	Dr. G. Lawrance	XXXXXXX34D	Ph.D	Karunya Institute of Technology and Sciences	Tool Vibration	05/04/2013	12.7	Assistant Professor	Assistant Professor		Regular	Yes

14	Dr. D.S. Ebenezer Jacob Dhas	XXXXXXX80E	Ph.D	Anna University	Metal Matrix Composite Materials	15/09/2016	9.1	Assistant Professor	Assistant Professor		Regular	Yes
15	Mr. Bairi Levi Rakshith	XXXXXXX82M	M.E.	Karunya Institute of Technology and Sciences	Thermal Engineerng	30/07/2022	3.3	Assistant Professor	Assistant Professor		Regular	Yes
16	Dr. K.R. Ramkumar	XXXXXXX65A	Ph.D	NIT, Trichy	Surface Engineering, Additive Manufacturing	03/10/2025	0.1	Assistant Professor	Assistant Professor		Regular	Yes
17	Dr. Leo Dev Wins K.	XXXXXXX71F	Ph.D	Karunya Institute of Technology and Sciences	Manufacturing	01/05/2017	8	Lecturer	Professor	01/05/2017	Regular	No
18	Dr. R. Malkiya Rasalin Prince	XXXXXXX97C	Ph.D	Anna University	Material Science	06/06/2019	5.11	Assistant Professor	Assistant Professor		Regular	No
19	Dr. Praveen Kumar Bannaravuri	XXXXXXX03D	Ph.D	NIT, Manipur	Tribology & Maintanance Engg	07/08/2019	5.9	Assistant Professor	Assistant Professor		Regular	No

Table No.C2: Faculty details of Allied Departments for the past 3 years including CAY.

C2. Student-Faculty Ratio (SFR)

No. of UG(Engineering) programs in Department including allied departments/ clusters (UGn):
UG1=1st UG program
UGn=nth UG program
B= No. of Students in UG 2nd year (ST)
C= No. of Students in UG 3rd year (ST)
D= No. of Students in UG 4th year (ST)
No. of PG (Engineering) programs in Department including allied departments/ clusters (PGm):
PG1=1st PG program.
PGm=mth PG program
A= No. of Students in PG 1st year
B= No. of Students in PG 2nd year
Student Faculty Ratio **(SFR)** = S/F
S= No. of students of all programs in the Department including all students of allied departments/clusters.
No. of students (ST)=Sanctioned Intake (SA)+ Actual admitted students via lateral entry including leftover seats (L) if any (limited to 10 % of SA)
Students who admitted under supernumerary quotas (SNQ, EWS, etc) will not be considered in calculating SFR value. Those students are exempted.
F=Total no. of regular or contractual faculty members (Full Time) in the Department, including allied departments/clusters (excluding first year faculty (The faculty members who have a 100% teaching load in the first-year courses)).

No. of UG Programs in the Department1 No. of PG Programs in the Department0

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

Description	**CAY(2025-26)**	**CAYm1 (2024-25)**	**CAYm2 (2023-24)**
UG1.B	62	66	66
UG1.C	66	66	128
UG1.D	66	128	125
UG1: Mechanical Engineering	**194**	**260**	**319**
DS=Total no. of students in all UG and PG programs in the Department	194	260	319
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=** 194	**S2=** 260	**S3=** 319
DF=Total no. of faculty members in the Department	15	18	18
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=** 15	**F2=** 18	**F3=** 18
FF=The faculty members in F who have a 100% teaching load in the first-year courses	0	0	0
Student Faculty Ratio (SFR)=S/(F-FF)	**SFR1= 12.93**	**SFR2= 14.44**	**SFR3= 17.72**
Average SFR for 3 years	**SFR= 15.03**		

C3. Faculty Qualification

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

Table No.C3.1: Faculty qualification.

Year	X	Y	RF	FQ = 2.5 x [(10X + 4Y) / RF)]
2025-26(CAY)	14	1	9.00	40.00
2024-25(CAYm1)	17	1	12.00	36.25
2023-24(CAYm2)	17	1	15.00	29.00

C4. Faculty Cadre Proportion

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

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

Year	Professors		Associate Professors		Assistant Professors	
	Required RF1	Available AF1	Required RF2	Available AF1	Required RF3	Available AF3
2025-26	1.00	3.00	2.00	4.00	6.00	8.00
2024-25	1.00	4.00	2.00	4.00	8.00	10.00
2023-24	1.00	4.00	3.00	4.00	10.00	10.00
Average	RF1=1.00	AF1=3.67	RF2=2.33	AF2=4.00	RF2=8.00	AF2=9.33

C5. Visiting/Adjunct Faculty/Professor of Practice

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

(CAYm1)

(CAYm2)

(CAYm3)

C6. Academic Research

Table No. C6.1: Faculty publication details.

S.No.	Item	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)
1	No. of peer reviewed journal papers published	45	43	32
2	No. of peer reviewed conference papers published	1	14	11
3	No. of books/book chapters published	3	6	6

C7. Sponsored Research Project

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

(CAYm1)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr. L. Godson Asirvatham	Dr. B. Jefferson Raja Bose, Dr. Justin Robert Paden	Mechanical Engineering	Experimental Investigation of a Novel Low Temperature Med Desalination Technology	MoES-DOM	2 years	210.17
Dr. A. Asha Monicka	Dr. A. Brusly Solomon	Agricultural Sciences	Scale Up of Heat Pipe-Assisted Hybrid Solar drying system for Agricultural Products in tribal areas	IIT Palakkad Technology IHub Foundation	1.5 years	9.99
Dr. P. Jegathambal	Dr. Sabitha Jannet	Water Institute	High performance integrated two-stage electro chemical technology for for recovery of water from electroplanting efficient with real time monitoring & Control system	DST Mission Division, New Delhi	3 years	7.00
						Amount received (Rs.):227.16

(CAYm2)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr. Madhu Ganesh	Dr. Joseph John Marshal	Aerospace Engineering	Design of 2 TPD Rotary Kiln Gasification Pilot Plant with high CV syngas production	DST-TDT-WMT	3 years	10.00
Dr. A. Brusly Solomon	Dr. L. Godson Asirvatham	Mechanical Engineering	Development of Flexible HeatPipe for Space Applications	ISRO	2 years	6.30
Dr. Gadudasu Babu Rao	Dr. Praveen Kumar Bannaravuri, Dr. Masepogu Wilson Kumar	Mechanical Engineering	SUJEEV: Design and Development of Smart Steps for Elderly or Differently Abled People to Travel Safely and Comfortable in the Public Vehicles	SEED-TIDE	3 years	11.07
Dr. L. Godson Asirvatham	Dr. B. Jefferson Raja Bose, Dr. Justin Robert Paden	Mechanical Engineering	Experimental Investigation of a Novel Low Temperature Med Desalination Technology	MoES-DOM	2 years	237.70
Dr. S.J. Vijay	Dr. M. Wilson Kumar, Dr. Madhu Ganesh	Mechanical Engineering	Development of an Eco-Friendly Sustainable Technology – A Pilot Plant to Recycle Non-Ferrous Metallic Waste Scraps	DST-TTI-WMT	3 years	42.66
						Amount received (Rs.):307.73

(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. Madhu Ganesh	Dr. Joseph John Marshal	Aerospace Engineering	Design of 2 TPD Rotary Kiln Gasification Pilot Plant with high CV syngas production	DST-TDT-WMT	3 years	22.50
Dr. P. Jegathambal	Dr. Sabitha Jannet	Water Institute	High performance integrated two-stage electro chemical technology for for recovery of water from electroplanting efficient with real time monitoring & Control system	DST Mission Division, New Delhi	3 years	9.53
Dr. Gadudasu Babu Rao	Dr. Praveen Kumar Bannaravuri, Dr. Masepogu Wilson Kumar	Mechanical Engineering	SUJEEV: Design and Development of Smart Steps for Elderly or Differently Abled People to Travel Safely and Comfortable in the Public Vehicles	SEED-TIDE	3 years	8.34
Dr. A. Brusly Solomon	Dr. L. Godson Asirvatham	Mechanical Engineering	Development of Flexible HeatPipe for Space Applications	ISRO	2 years	6.16
						Amount received (Rs.):46.53

Total Amount (Lacs) Received for the Past 3 Years: 581.42

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. P. Sam Paul		Mechanical Engineering	Machinability study of thermoplastic composite	Sri Krishna College of Technology, CBE	3 days	0.06
Dr. P. Sam Paul		Mechanical Engineering	Machinability study of aluminium composite	SSN College of Engineering, Chennai	3 days	0.03
Dr. P. Sam Paul		Mechanical Engineering	Machinability study of aluminium composite	SSN College of Engineering, Chennai	3 days	0.06
Dr. P. Sam Paul		Mechanical Engineering	Drilling of Fibre Composite & Force Analysis	PSG College of Technology, Coimbatore	3 days	0.09
Dr. P. Sam Paul		Mechanical Engineering	Study on milling process of flax epoxy composite	Sri Krishna College of Technology, Coimbatore	3 days	0.06
Dr. Rajakumar S. Rai		Mechanical Engineering	Investigation of cutting forces and surface finish on AM fibre during machining	Sri Krishna College of Technology, Coimbatore	3 days	0.07
Dr. Rajakumar S. Rai		Mechanical Engineering	Analysis of delamination and surface roughness	PSG College of Technology, Coimbatore	3 days	0.04
Dr. Rajakumar S. Rai		Mechanical Engineering	Experimental investigation on machinability of AISI4340 alloy steel	PSG College of Technology, Coimbatore	3 days	0.10
Dr. G. Lawrance		Mechanical Engineering	Experimental investigation on machinability of AISI4340 alloy steel	PSG College of Technology, Coimbatore	3 days	0.10
Dr. G. Lawrance		Mechanical Engineering	Surface roughness testing	SREC, CBE	3 days	0.01
Dr. G. Lawrance		Mechanical Engineering	Measuring Thrust and Torque force during Drilling	NPTC-MCET Campus, Pollachi	3 days	0.06
Dr. K. Leo Dev Wins		Mechanical Engineering	Estimating Tensile load of the specimen	KITS, CBE	2 days	0.03
Dr. K. Leo Dev Wins		Mechanical Engineering	Testing of PVA & Starch based polymer	KITS, CBE	2 days	0.01
Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	Studies on Tensile Strength on Polimer Composition	KITS, CBE	2 days	0.04
Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	Wear Testing on Titanium alloy	Nandha Engineering College, Erode	2 days	0.04
Dr. R. Raja		Mechanical Engineering	FGM wall preparation and checking the wear rate	PSG College of Tech, Coimbatore	2 days	0.01
Dr. R. Raja		Mechanical Engineering	Characterization ofo MMC	Parisutham Institution, Thanjavur	2 days	0.04
Dr. Sabitha Jannet		Mechanical Engineering	Stir casting	Jai Shriram Engineering College, Tiruppur	4 days	0.02
Dr. Sabitha Jannet		Mechanical Engineering	Fabrication of composite material using Nano hybrid material powder particles	CSI College of Engg., Ooty, CBE	4 days	0.02
Dr. L. Godson Asirvatham		Mechanical Engineering	Determination of thermal conductivity, viscosity and surface tension of fluids	KLE College of Engg & Tech. Karnataka	4 days	0.04
Dr. L. Godson Asirvatham		Mechanical Engineering	Determination of Properties of thermal conductivity, viscosity	Mahatma Gandhi Institute of Technology, Hyderabad	4 days	0.02
Dr. L. Godson Asirvatham		Mechanical Engineering	Thermal conductivity testing	Kalaignar Karunanidhi Institute of Technology (KIT), CBE	4 days	0.03
Dr. L. Godson Asirvatham		Mechanical Engineering	Fabrication of Cylindrical Heat pipe for Electronic Cooling	St. Joseph's College of Engineering and Technology, Palai, Kerala	3 weeks	0.04
Dr. L. Godson Asirvatham		Mechanical Engineering	Determination of thermal conductivity, viscosity and surface tension of Graphene	KLECET, Karnataka	3 days	0.11
Dr. A. Brusly Solomon		Mechanical Engineering	Fabrication of heat pipes	NIT Campus, Calicut	3 weeks	0.13

Dr. A. Brusly Solomon		Mechanical Engineering	Fabrication of heat pipes	Mahaguru Institute of Technology, Kerala	3 weeks	0.13
Dr. A. Brusly Solomon		Mechanical Engineering	Heat Pipe Appratus	NSS Engineering College, Palakkad	3 weeks	0.11
Dr. A. Brusly Solomon		Mechanical Engineering	Thermal conductivity studies	MEPCO Schlent Engineering College, Sivakasi	4 days	0.01
Dr. B. Jefferson Raja Bose		Mechanical Engineering	Testing the viscosity and Thermal Conductivity of cutting fluids	P.S.G. College of Tech, Coimbatore	5 days	0.02
Dr. B. Jefferson Raja Bose		Mechanical Engineering	Thermal Conductivity studies	MEPCO Schlent Engineering College, Sivakasi	5 days	0.05
Dr. B. Jefferson Raja Bose		Mechanical Engineering	Php Fabricatiuon of Concrete roof cooling	Sri Buddha College of Engg., Kerala	2 weeks	0.21
						Amount received (Rs.):1.79

(CAYm2)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr. P. Sam Paul		Mechanical Engineering	Cutting force, temperature, vibration and surface roughness measurement	Amrita Vishwa Vidyapeetham, Coimbatore	1 week	0.18
Dr. P. Sam Paul		Mechanical Engineering	Force analysis	Kongunadu College of E & T, Trichy	1 week	0.06
Dr. P. Sam Paul		Mechanical Engineering	Experimental analysis on toolwear under nanofluid lubricant	Sri Ramakrishna Engg. College, Coimbatore	1 week	0.12
Dr. P. Sam Paul		Mechanical Engineering	Tribological studies & Taguchi analysis	Sri Ramakrishna Engg. College, Coimbatore	1 week	0.12
Dr. P. Sam Paul		Mechanical Engineering	Analysis of tool wear on a cutting tool with the help of coating	Sri Ramakrishna Engg. College, Coimbatore	1 week	0.12
Dr. P. Sam Paul		Mechanical Engineering	Vibration analysis	GCT, Coimbatore	1 week	0.05
Dr. P. Sam Paul		Mechanical Engineering	To measure cutting force, temprature and surface roughness	NIT, Calicut	1 week	0.12
Dr. P. Sam Paul		Mechanical Engineering	Force analysis	Builders Engg. College, Tiruppur	1 week	0.06
Dr. G. Lawrance		Mechanical Engineering	Finite element modelling of orthognal milling of AISI 304	Ahalia School of E & T, Palakkad	1 week	0.08
Dr. G. Lawrance		Mechanical Engineering	Force analysis and surface roughness testing	GCT, Coimbatore	1 week	0.12
Dr. G. Lawrance		Mechanical Engineering	Force analysis and surface roughness testing	Ramakrishnan College of Engg, Trichy	1 week	0.07
Dr. G. Lawrance		Mechanical Engineering	Roughness measurement for optimization of machining parameters	PSG College of Tech, Coimbatore	1 week	0.08
Dr. G. Lawrance		Mechanical Engineering	Machining Studies in Drilling of AlF Reinforced Polymer Composites	PSG College of Tech, Coimbatore	1 week	0.02
Dr. G. Lawrance		Mechanical Engineering	Machining of Rectangular Plates	KITS, CBE	1 week	0.04
Dr. G. Lawrance		Mechanical Engineering	Machining of Flanges	KITS, CBE	1 week	0.03
Dr. G. Lawrance		Mechanical Engineering	Mould for casting silicone products	KITS, CBE	1 week	0.06
Dr. G. Lawrance		Mechanical Engineering	Experimental investigation of Fibre Reinforced Polymer Biocomposites	Dhanalakshmi Sreenivasan College of Engineering , Coimbatore	1 week	0.07
Dr. Rajakumar S. Rai		Mechanical Engineering	Machining of Flanges and holes	KITS, CBE	1 week	0.04
Dr. Rajakumar S. Rai		Mechanical Engineering	Machining Performance of Reinforced hybrid Composite	PSG College of Tech, Coimbatore	1 week	0.08
Dr. Rajakumar S. Rai		Mechanical Engineering	Cutting force calculation of Magnesuim Alumnium Oxide	SSN College of Engineering, Kalavakkam	1 week	0.22
Dr. Rajakumar S. Rai		Mechanical Engineering	Experimental Analysis on Tool Life in CNC operation	Parisutham Institute of Technology and Sciences, Thanjavur	1 week	0.08
Dr. Rajakumar S. Rai		Mechanical Engineering	Influence of Natural fiber addition and fiber length in determining the wear resistance of epozy based composite	Dr. Mahalingam College of Engineering and Technology, Pollachi	1 week	0.06
Dr. Rajakumar S. Rai		Mechanical Engineering	Thrust force measurement	Sri. Sairam Institute of Technology, Chennai	1 week	0.11
Dr. K. Leo Dev Wins		Mechanical Engineering	Tensile strength analysis on thin film polymer sheet with grape extract	KITS, CBE	1 week	0.01
Dr. K. Leo Dev Wins		Mechanical Engineering	Design and Development of composite materials in HAWT	Kumaraguru College of Technology, Coimbatore	1 week	0.03
Dr. K. Leo Dev Wins		Mechanical Engineering	3D Metal Printing & Plasma Material Processing	Bharathiar University	1 week	0.02

Dr. K. Leo Dev Wins		Mechanical Engineering	Casting of Aluminium	KITS, CBE	1 week	0.11
Dr. K. Leo Dev Wins		Mechanical Engineering	Casting of Aluminium	KITS, CBE	1 week	0.07
Dr. K. Leo Dev Wins		Mechanical Engineering	Casting of Aluminium Alloy	KITS, CBE	1 week	0.04
Dr. K. Leo Dev Wins		Mechanical Engineering	Hybrid Metal Matrix Composite	Bapptla Engineering College, Andhra Pradesh	1 week	0.14
Dr. K. Leo Dev Wins		Mechanical Engineering	Fabrication of Composite Material	Sri Krishna College of Technology, Coimbatore	1 week	0.11
Dr. K. Leo Dev Wins		Mechanical Engineering	Aluminium LM13 Reinforced with Zr and BN	SRI Krishna College of Technology, Coimbatore	1 week	0.04
Dr. K. Leo Dev Wins		Mechanical Engineering	LM13 Aluminium, Reinforcement: Boron Carbide (B4C); Zirconium Diboride powder (ZrB2)	SRI Krishna College of Technology, Coimbatore	1 week	0.05
Dr. K. Leo Dev Wins		Mechanical Engineering	Four ball testing - Formulated lubricants with graphene	IIT Palakkad	1 week	0.32
Dr. K. Leo Dev Wins		Mechanical Engineering	Stir casting of Al2024 composite consisting TiC, Zr and Mg	Muthoot Institute of Technology and Sciences, Kerala	1 week	0.09
Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	Tensile Testing of Aluminium hybrid composite	Muthoot Institute of Technology and Sciences, Kerala	1 week	0.03
Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	Properties of Dispersion of Multiwalled Carbon Nanotubes of Cutting Fluid	Mar Alhanasium College of Engineering, Kerala	1 week	0.05
Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	Determination of Tensile Strength of Bioplastic films	Department of Food Processing, KITS, CBE	1 week	0.00
Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	Tensile Testing of Composites	Rajagiri School of Engineering & Technology, Kerala	1 week	0.04
Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	Films (Biodegradable film using Papaya seed extract)	Division of Food Processing Technology, KITS, Coimbatore	1 week	0.00
Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	Aluminium 7075 metal matrix composite is costed with graphite UMMT as reinforcement	Christ College of Engineering, Kerala	1 week	0.02
Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	Aluminium alloy 6061 / Boron Carbonate	Kumaraguru College of Technology, Coimbatore	1 week	0.04
Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	development of EDM Culture	SRM, NCR Campus, Delhi	1 week	0.02
Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	Stir Casting	Kumaraguru College of Technology, Coimbatore	1 week	0.04
Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	Reinforcement leco balis powder	Bapptla Engineering College, Andhra Pradesh	1 week	0.08
Dr R Raja		Mechanical Engineering	Wear Testing of Composites	R K University, Rajkot, Gujarat	1 week	0.09
Dr R Raja		Mechanical Engineering	Conducting abrasive wear test on High Entropy alloys for Turbocharger impeller	Coimbatore Institute of Technology, Coimbatore	1 week	0.02
Dr R Raja		Mechanical Engineering	Experimental Investigation of Hybrid Composite Wind Turbine blade (2 Nos.)	Hindusthan College of Engineering and Technology, HICET, Coimbatore	1 week	0.01
Dr R Raja		Mechanical Engineering	Metal Matrix Composite with stir casting Method	Ndaar Saraswathi College of Engineering, (NSCET), Theni.	1 week	0.04
Dr R Raja		Mechanical Engineering	Determination of Tensile Strength of Bioplastic films	Department of Food Processing, KITS, CBE	1 week	0.01

Dr R Raja		Mechanical Engineering	Flexural test of concrete beam	NIT - Pudhcherry	1 week	0.01
Dr R Raja		Mechanical Engineering	Frictional studies on bio materials	Department of Food Processing, KITS, CBE	1 week	0.00
Dr. Sabitha Jannet		Mechanical Engineering	Performing tensile, wear and Hardness Test	hrist College of Engineering, Kerala	1 week	0.04
Dr. Sabitha Jannet		Mechanical Engineering	To check the wear resistance of the composite material	JCT College of Engineering and Technology, Coimbatore	1 week	0.05
Dr. Sabitha Jannet		Mechanical Engineering	Tensile Test, Flexural Test of composite materials	Nehru Institute of Technology, Coimbatore	1 week	0.25
Dr. Sabitha Jannet		Mechanical Engineering	To examine the fracture and rapture of ABs composite to determine the ultimate load factor	Nehru Institute of Engineering and Technology, Coimbatore	1 week	0.07
Dr. Sabitha Jannet		Mechanical Engineering	Development of biodegradable film using PLA incorporating papaya seed extract	KITS, CBE	1 week	0.01
Dr. Sabitha Jannet		Mechanical Engineering	Hot wear Testing of composite materials	SKCET, Sri Krishna Collect of Engineering and Technology, Coimbatore	1 week	0.06
Dr. Sabitha Jannet		Mechanical Engineering	Dry Sliding Wear Testing ofcomposite materials	Lourdes Matha College of Science and Technology, Thiruvananthapuram	1 week	0.02
Dr. L. Godson Asirvatham		Mechanical Engineering	Testing of Battery - Heat Pipe system	Sree Buddha College of Engg, Kerala	1 week	0.08
Dr. L. Godson Asirvatham		Mechanical Engineering	Thermal Ground Plane Loop	King Mongkut's University of Technology, Thonburi, Bangmod, Bangkok	1 week	0.14
Dr. L. Godson Asirvatham		Mechanical Engineering	Contact Angle Measurement	MAHE Institute of Dental Seience and Hospital (MINDS), Kerala	1 week	0.06
Dr. L. Godson Asirvatham		Mechanical Engineering	determine Thermal Conductivity and Viscosity of Zno nano fluids	Raghu Engineering Collage, Dakamarri, Visamhapatnam.	1 week	0.02
Dr. L. Godson Asirvatham		Mechanical Engineering	Nanofluid Testing	Reddy Engineering College, Kurnool, Andhra Pradesh	1 week	0.02
Dr. L. Godson Asirvatham		Mechanical Engineering	Heat Pipe Testing and Fabrication	Kumaraguru College of Technology, Coimbatore	1 week	0.06
Dr. L. Godson Asirvatham		Mechanical Engineering	Surface Tension Test	Pulla Reddy Engineering College, Kurnool, Andhra Pradesh	1 week	0.01
Dr. L. Godson Asirvatham		Mechanical Engineering	Heat Pipe Testing and Fabrication	Nandha Engineering College, Erode	1 week	0.04
Dr. A. Brusly Solomon		Mechanical Engineering	Fabrication of flat heat pipe	Nandha Engineering College, Erode	1 week	0.07
Dr. A. Brusly Solomon		Mechanical Engineering	Heat pipe fabrication and testing	NSS College of Engineering, Palakkad	1 week	0.29
Dr. A. Brusly Solomon		Mechanical Engineering	Thermal Conductivity	Mepco Schlenk	1 week	0.01
Dr. A. Brusly Solomon		Mechanical Engineering	Loop HP - Standard Fabrication	SJCET, Kerala	1 week	0.07
Dr. A. Brusly Solomon		Mechanical Engineering	Fabrication and Testing of heat pipes	King Mongkut's University of Technology, Bangkok, Thailand	1 week	0.15
Dr. A. Brusly Solomon		Mechanical Engineering	Heat Pipe fabrication and testing	Kumaraguru College of Technology, Coimbatore	1 week	0.07
Dr. A. Brusly Solomon		Mechanical Engineering	Thermal Conductivity test	MEPCO Schlenk Engineering College, Sivakasi	1 week	0.04
Dr. A. Brusly Solomon		Mechanical Engineering	Heat pipe fabrication	Mongkut's University of Technology, Thonburi, Bangmod, Bangkok	1 week	0.41
Dr. A. Brusly Solomon		Mechanical Engineering	Thermal Conductivity	Mepco Schlenk Engineering College, Mepco Nagar, Sivakasi	1 week	0.02

Dr. A. Brusly Solomon		Mechanical Engineering	Loop Heat Pipe Testing	Kumaraguru College of Technology, Coimbatore	1 week	0.06
Dr. A. Brusly Solomon		Mechanical Engineering	Cylindrical heat pipe Testing	Kumaraguru College of Technology, Coimbatore	1 week	0.06
Dr. B. Jefferson Raja Bose		Mechanical Engineering	Thermal Conductivity and Viscosity	CMR College of Engg & Tech., Hyderabad	1 week	0.05
						Amount received (Rs.):5.75

(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. P. Sam Paul		Mechanical Engineering	Drilling studies on natural fiber reinforced composites	Bannaari Amman Inst. of Tech, Sathiyamangalam	1 week	0.06
Dr. P. Sam Paul		Mechanical Engineering	Optimization of turning parameters in SS304 alloy	Sasi Institute of T & E, AP	1 week	0.40
Dr. P. Sam Paul		Mechanical Engineering	Surface roughness testing and cutting force calculation	SRM Inst. of S & T. Ramapuram, Chennai	1 week	0.20
Dr. P. Sam Paul		Mechanical Engineering	CNC drilling, Thrust force and torque calculation	NIT, Silchar, Assam	1 week	0.19
Dr. P. Sam Paul		Mechanical Engineering	Drilling performance of polymer composites	Bannaari Amman Inst. of Tech, Sathiyamangalam.	1 week	0.06
Dr. P. Sam Paul		Mechanical Engineering	Drilling, measurement of thrust and torque	VIT, Chennai	1 week	0.06
Dr. P. Sam Paul		Mechanical Engineering	Analysis of the forces on composite material	Kalaignar Karunanidhi Inst. of Tech, CBE	1 week	0.14
Dr. P. Sam Paul		Mechanical Engineering	Investigation analysis and characterization to improve corrosion resistance	Kalaignar Karunanidhi Inst. of Tech, CBE	1 week	0.10
Dr. P. Sam Paul		Mechanical Engineering	Machinability study of Ti6Al4V alloys	Amrita Vishwa Vidyapeetham, CBE	1 week	0.14
Dr. P. Sam Paul		Mechanical Engineering	Studies on Machining in Lathe	NIT, Karaikal	1 week	0.08
Dr. P. Sam Paul		Mechanical Engineering	Friction stir welding of magnesium	Sri Krishna College of E & T, CBE	1 week	0.08
Dr. P. Sam Paul		Mechanical Engineering	CNC drilling and analysis of surface roughness	M. Kumarasamy College of Engg., Karur	1 week	0.07
Dr. P. Sam Paul		Mechanical Engineering	Multi metal stack drilling of alloys	PSG College of Tech, Coimbatore	1 week	0.09
Dr. P. Sam Paul		Mechanical Engineering	Measurement of thrust force, torque, in fiber composite material	Government College of Engg, Salem	1 week	0.07
Dr. P. Sam Paul		Mechanical Engineering	Drilling studies	VIT, Chennai	1 week	0.07
Dr. P. Sam Paul		Mechanical Engineering	Calculation of thrust force and torque	PSG College of Tech, Coimbatore	1 week	0.11
Dr. P. Sam Paul		Mechanical Engineering	Surface roughness testing	Sri Krishna College of E & T, CBE	1 week	0.01
Dr. P. Sam Paul		Mechanical Engineering	Calculation of thrust force and torque	PSG College of Tech, Coimbatore	1 week	0.01
Dr. P. Sam Paul		Mechanical Engineering	Calculation of cutting force and surface roughness	Sri Krishna College of E & T, CBE	1 week	0.12
Dr. P. Sam Paul		Mechanical Engineering	Force analysis - Machining performance in drilling of multi-metal stacks	PSG College of Tech, Coimbatore	1 week	0.09
Dr. Rajakumar S. Rai		Mechanical Engineering	Analysis of cutting force, surface roughness and interface temperature	Bapatla Engg. College, AP	1 week	0.08
Dr. Rajakumar S. Rai		Mechanical Engineering	Analysis of cutting force, surface roughness and interface temperature	Bapatla Engg. College, AP	1 week	0.17
Dr. Rajakumar S. Rai		Mechanical Engineering	Experimental investigation on surface roughness during end milling of ZK60 hybrid MMC	Bapatla Engg. College, AP	1 week	0.07
Dr. Rajakumar S. Rai		Mechanical Engineering	Experimental investigation on surface roughness during end milling of ZK60 hybrid MMC	Bapatla Engg. College, AP	1 week	0.07
Dr. Rajakumar S. Rai		Mechanical Engineering	CNC milling	Sri Ramakrishna Inst. of Tech, CBE	1 week	0.03
Dr. Rajakumar S. Rai		Mechanical Engineering	Experimental Investigations on tool vibrations during end milling	Bapatla Engg. College, AP	1 week	0.07
Dr. Rajakumar S. Rai		Mechanical Engineering	Experimental investigation on tool vibrations during milling of surface defect	Bapatla Engg. College, AP	1 week	0.07

Dr. Rajakumar S. Rai		Mechanical Engineering	Mechanical behavior of hybrid composite materials	Sri Engineering, Bharathi Nagar, Salem	1 week	0.04
Dr. Rajakumar S. Rai		Mechanical Engineering	Experimental investigation on cutting forces during end milling of 2K60 hybrid metal matrix composite	Bapatla Engg. College, AP	1 week	0.10
Dr. Rajakumar S. Rai		Mechanical Engineering	Study of optimization of drilling parameters in sandwich material	Sri Manakula Vinayagar Engg. College, Puducherry	1 week	0.06
Dr. Rajakumar S. Rai		Mechanical Engineering	Experimental investigation on cutting forces	Bapatla Engg. College, AP	1 week	0.10
Dr. Rajakumar S. Rai		Mechanical Engineering	Measurement of surface roughness	Sri Krishna College of E & T, CBE	1 week	0.03
Dr. G. Lawrance		Mechanical Engineering	CNC milling and Surface roughness testing	GCT, Coimbatore	1 week	0.07
Dr. G. Lawrance		Mechanical Engineering	Cutting force, temperature, vibration and surface roughness measurement	Amrita Vishwa Vidyapeetham, CBE	1 week	0.18
Dr. G. Lawrance		Mechanical Engineering	Force analysis	Kongunadu College of E & T, Trichy	1 week	0.06
Dr. G. Lawrance		Mechanical Engineering	Experimental analysis on tool wear under nanofluid lubricant environment	Sri Ramakrishna Engg. College, Coimbatore	1 week	0.12
Dr. G. Lawrance		Mechanical Engineering	Vibration analysis	GCT, Coimbatore	1 week	0.05
Dr. G. Lawrance		Mechanical Engineering	To measure cutting force, temprature and surface roughness	NIT, Calicut. Kerala	1 week	0.12
Dr. G. Lawrance		Mechanical Engineering	Force analysis	Builders Engg. College. Tiruppur	1 week	0.06
Dr. G. Lawrance		Mechanical Engineering	Finite element modelling of orthogonal milling of AISI 304	Ahalia School of E & T, Palakkad	1 week	0.08
Dr. G. Lawrance		Mechanical Engineering	Force analysis, surface roughness test and interface temperature	GCT, Coimbatore	1 week	0.12
Dr. G. Lawrance		Mechanical Engineering	Analysis of forces and surface roughness	K. Ramakrishnan College of Engg, Trichy	1 week	0.07
Dr. K. Leo Dev Wins		Mechanical Engineering	Impact testing of ABS Material as per ASTM D256	NSS College of Engg, Palakkad, Kerala	1 week	0.09
Dr. K. Leo Dev Wins		Mechanical Engineering	Microhardness test on cladded low carbon steel specimens	SNS College of Engg, CBE	1 week	0.04
Dr. K. Leo Dev Wins		Mechanical Engineering	Tensile strength analysis on Polyvinyl Alcohol - PVA	KITS, CBE	1 week	0.02
Dr. K. Leo Dev Wins		Mechanical Engineering	Microhardness analysis on bio-based starch material	KITS, CBE	1 week	0.01
Dr. K. Leo Dev Wins		Mechanical Engineering	Tensile strength analysis of friction stir lap joint specimen	KITS, CBE	1 week	0.04
Dr. K. Leo Dev Wins		Mechanical Engineering	4 point bending test on 3D printed geo-polymer material	KITS, CBE	1 week	0.01
Dr. K. Leo Dev Wins		Mechanical Engineering	Heating of coconut coir at 800C using muffle furnace for EM wave detection	Sri Ramakrishna Engg. College, CBE	1 week	0.00
Dr. K. Leo Dev Wins		Mechanical Engineering	Tensile Strength analysis of thin film	KITS, CBE	1 week	0.00
Dr. K. Leo Dev Wins		Mechanical Engineering	Preparation of Ti6Al4V alloy (Grade 5) Specimen using EDM cutting and microhardness testing	Amrita Vishwa Vidyapeetham, CBE	1 week	0.14
Dr. K. Leo Dev Wins		Mechanical Engineering	Preparation of Aluminium alloy (6082) Specimen using EDM cutting	Nehru Inst. of Tech, CBE	1 week	0.00
Dr. K. Leo Dev Wins		Mechanical Engineering	Stir casting of Al6061+SiC+FA+SCBA material	R K University, Gujarat	1 week	0.14
Dr. K. Leo Dev Wins		Mechanical Engineering	Tensile Strength analysis and microhardness analysis on Al6061+SiC+FA+SCBA material	R K University, Gujarat	1 week	0.16
Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	Stir Casting of Al6061+GNP reinforced nano-composite	Achariya College of E & T, Pondicherry	1 week	0.07

Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	Tensile strength analysis on AL 5083+SiC & AL6061+TiO2 specimens	Achariya College of E & T, Pondicherry	1 week	0.04
Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	Microhardness, wear Prediction and Charpy impact test on Al6061+GNP reinforced nano-composite	Achariya College of E & T, Pondicherry	1 week	0.07
Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	Tensile strength analysis on AL 5083+SiC & AL6061+TiO2 specimens	Achariya College of E & T, Pondicherry	1 week	0.04
Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	Microhardness, wear Prediction and Charpy impact test on Al6061+GNP reinforced nano-composite	Achariya College of E & T, Pondicherry	1 week	0.07
Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	Stir casting of Al6061T6 hybrid composite by adding reinforcements	Sri Ramakrishna Inst. of Tech, CBE	1 week	0.06
Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	Wear Prediction on Zirconia & Acrylic coated Stainless steel tooth implants	Vivenkanandha Dental College of Women, Thiruchengode	1 week	0.01
Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	Micro hardness, wear and tensile test on Al6061T6 hybrid composite with B4C, Graphite reinforcements	Sri Ramakrishna Inst. of Tech, CBE	1 week	0.06
Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	Tensile Strength analysis on HAP/PCL polymer scaffolds prepared using solvent casting method for biomedical application	KITS, CBE	1 week	0.02
Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	Stir Casting of Al7075+SiC+ZrSiO composite	Paavai Engg. College, Namakkal	1 week	0.07
Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	Stir Casting of Al7075+SiC+AlOx composite	Dr. NGP Inst. of Tech, CBE	1 week	0.04
Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	Stir casting of Al2024+Si3N4+Mg+TiC, Al5083+Fe2O3+TiO2 specimens	MITS, Cochin	1 week	0.17
Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	Heat treatment of carbon powders using muffle furnace	KITS, CBE	1 week	0.00
Dr. D.S. Ebenezer Jacob Dhas		Mechanical Engineering	Preparation of Aluminium specimen from heat sink used for electronic cooling setup	MBCCET, Kerala	1 week	0.00
Dr. R. Raja		Mechanical Engineering	Tensile strength analysis on silicone sheet specimens	KITS, CBE	1 week	0.01
Dr. R. Raja		Mechanical Engineering	Stir casting of Al+Graphite+ZrO2 composite	Dr. NGP Inst. of Tech, CBE	1 week	0.19
Dr. R. Raja		Mechanical Engineering	Preparation of Magnesium specimens from Mg bar of size 10´10´60 mm	KITS, CBE	1 week	0.01
Dr. R. Raja		Mechanical Engineering	Micro hardness test on Aluminium alloy	MITS, Cochin	1 week	0.02
Dr. Sabitha Jannet		Mechanical Engineering	Stir casting of Al6063+B4C+basalt fiber composite	PSNA College of E & T, Dindigul	1 week	0.04
Dr. Sabitha Jannet		Mechanical Engineering	Stir casting of Al7100 glass fiber composite	Parisutham Inst of T & S, Thanjavur	1 week	0.04
Dr. Sabitha Jannet		Mechanical Engineering	Fabrication and characterization of A2916 hybrid composite reinforced with SiC+flyash	Bapatla Engg. College, AP	1 week	0.22
Dr. R. Raja		Mechanical Engineering	Stir casting of Al8011 alloy	Sri Krishna College of E & T, CBE	1 week	0.02
Dr. R. Raja		Mechanical Engineering	Stir casting of LM9 + MWCNT+ graphite reinforcements	Sri Krishna College of E & T, CBE	1 week	0.02
Dr. R. Raja		Mechanical Engineering	Development of copper and Making Zinc+Aluminium alloy using muffle furnace	KITS, CBE	1 week	0.00

Dr. R. Raja		Mechanical Engineering	Development of smart bio polymer for meat preservation	KITS, CBE	1 week	0.00
Dr. R. Raja		Mechanical Engineering	Development of copper and Aluminium alloy using muffle furnace	KITS, CBE	1 week	0.00
Dr. R. Raja		Mechanical Engineering	Tensile strength analysis on Al6061	PSNA College of E & T, Dindigul	1 week	0.01
Dr. R. Raja		Mechanical Engineering	Tensile Strength analysis on biofilms	KITS, CBE	1 week	0.01
Dr. R. Raja		Mechanical Engineering	Microhardness test on Al+lead+copper	KITS, CBE	1 week	0.00
Dr. Sabitha Jannet		Mechanical Engineering	Study on phase transformation	KITS, CBE	1 week	0.00
Dr. Sabitha Jannet		Mechanical Engineering	Stir casting of Al+W+B4C composite	The Kavery Engg. College, Salem	1 week	0.05
Dr. Sabitha Jannet		Mechanical Engineering	Determination of strength	KITS, CBE	1 week	0.01
Dr. Sabitha Jannet		Mechanical Engineering	Wear Prediction on Al6061 reinforced materials B4C & MoS tool using FSP	CIT, Coimbatore	1 week	0.02
Dr. Sabitha Jannet		Mechanical Engineering	Tensile strength analysis on bio-degradable packing film	KITS, CBE	1 week	0.01
Dr. Sabitha Jannet		Mechanical Engineering	Tensile strength analysis on bio-degradable packing film	KITS, CBE	1 week	0.00
Dr. Sabitha Jannet		Mechanical Engineering	Wear Prediction on Al7075 alloy	Nehru Inst. of Tech, CBE	1 week	0.05
Dr. A. Brusly Solomon		Mechanical Engineering	Viscosity test	GCT, Coimbatore	1 week	0.02
Dr. A. Brusly Solomon		Mechanical Engineering	Measurement of Thermal conductivity for nano fluids	Mepco Schlenk Engg. College, Sivakasi	1 week	0.02
Dr. A. Brusly Solomon		Mechanical Engineering	Thermocycling process	Vivekanandha Dental College for Women	1 week	0.01
Dr. A. Brusly Solomon		Mechanical Engineering	Fabrication of heat pipes	Kongu Engg. College, Erode	1 week	0.05
Dr. B. Jefferson Raja Bose		Mechanical Engineering	Heat pipe fabrication and testing	VIT, Vellore	1 week	0.08
Dr. B. Jefferson Raja Bose		Mechanical Engineering	Heat pipe fabrication	Lendi Inst. of E & T, AP	1 week	0.15
Dr. B. Jefferson Raja Bose		Mechanical Engineering	Heat transfer study of concrete with nano particle coated heat pipes	Sree Buddha College of Engg, Kerala	1 week	0.05
Dr. B. Jefferson Raja Bose		Mechanical Engineering	Fabrication and testing	Sri Krishna College of E & T, Coimbatore	1 week	0.05
Dr. B. Jefferson Raja Bose		Mechanical Engineering	Fluid property test	Sri Krishna College of E & T, Coimbatore	1 week	0.01
Dr. B. Jefferson Raja Bose		Mechanical Engineering	Fabrication and testing of heat pipe with cone frustum at various inclinations.	VIT, Vellore	1 week	0.12
Dr. L. Godson Asirvatham		Mechanical Engineering	Thermal conductivity test	Sri Ramakrishna Engg. College, Coimbatore	1 week	0.00
Dr. L. Godson Asirvatham		Mechanical Engineering	Fabrication of thermosyphon heat pite and testing it with nanofluids	Sree Vidyanikethan Engg. College, Tirupati	1 week	0.07
Dr. L. Godson Asirvatham		Mechanical Engineering	Heat pipe fabrication and testing	Nandha Engg. College, Erode	1 week	0.11
Dr. L. Godson Asirvatham		Mechanical Engineering	Thermal conductivity test	PSG College of Tech, Coimbatore	1 week	0.01
Dr. L. Godson Asirvatham		Mechanical Engineering	Fabrication of heat pipes	St. Joseph's College of E & T, Kerala	1 week	0.21
Dr. L. Godson Asirvatham		Mechanical Engineering	Fabrication of heat pipe and condenser	VIT, Vellore	1 week	0.18

Dr. L. Godson Asirvatham		Mechanical Engineering	Fabrication of heat pipe and condenser	VIT, Vellore	1 week	0.18
Dr. L. Godson Asirvatham		Mechanical Engineering	Fabrication of vapour chamber	NIT, Calicut, Kerala	1 week	0.05
Dr. S. Joseph John Marshal		Mechanical Engineering	Ball Milling of ceramic particles	Amrita Vishwa Vidyapeetham, Coimbatore	1 week	0.01
						Amount received (Rs.):7.45

Total amount (Lacs) received for the past 3 years: 14.99

Note*:

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

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

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

(CAYm1)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
Dr. Sabitha Jannet	Development of a Solar-Energy Driven Popcorn Maker and Steamer	6 months	0.45	0.45	In design stage
Dr. D.S. Ebenezer Jacob Dhas	Characterization of Biochar and Steel Scrap Reinforced Aluminium 7075 Hybrid Composites	4 months	0.08	0.08	Experimental results generated for journal publication
Dr. A. Brusly Solomon	Design and Development of Loop Heat Pipe for Cooling at Elevated Temperature	4 months	0.08	0.08	Conceptual design, fabrication and testing of loop heat pipe completed
Dr. A. Brusly Solomon	Flying Wind Turbine	4 months	0.08	0.08	Design and simulation of flying wind turbine system completed; prototype development initiated
Dr. R. Malkiya Rasalin Prince	Enhancing the Strength and Structure of Mg Sr composite by Zr Reinforcement	4 months	0.10	0.10	Composite material fabricated and characterized; improvement in mechanical properties established
Dr. Sabitha Jannet	Influence of the Process parameter on the Properties of Copper Steel Ultrasonic Welds	4 months	0.06	0.06	Research findings documented for publication
Dr. R. Raja	Comparative Evaluation of Weldments in Aluminium Plates	4 months	0.09	0.09	Research findings documented for publication
Dr. Sabitha Jannet	Optimization Process Parameter of Copper Aluminium Ultrosonic Welds for Electronic Application	4 months	0.07	0.07	Optimized process window identified; experimental validation completed
Dr. L. Godson Asirvatham	Design and Fabrication of an Ejector for Liquid Vapor Refrigerent Systems	4 months	0.08	0.08	Design, fabrication and testing of ejector system completed
Dr. D.S. Ebenezer Jacob Dhas	Characterization of FSPed BRC and Al203 Reinforced Aluminium 7075 Hybrid Surface Composites	4 months	0.08	0.08	Experimental results generated for publication
			Amount received (Rs.): 1.17		

(CAYm2)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
Dr. Rajakumar S. Rai	3D Printed Components for Micromachining Structures	4 months	0.10	0.10	The research paper has been sent to International Conference
Dr. P. Sam Paul	Vibration Control in Machine Tool Using IoT based MR Fluid Foam Damper	4 months	0.10	0.10	vibration control system developed; working prototype demonstrated
Dr. G. Lawrance	Experimental and Computation Study of Bionic Turtle Shell Structure Core	4 months	0.10	0.10	Bio-inspired structure designed and fabricated; improved strength-to-weight ratio demonstrated
Dr. D. Arul Kirubakaran	Effect of Laser Surface Texturing	4 months	0.10	0.10	Results communicated for journal publication
			Amount received (Rs.): 0.40		

(CAYm3)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
Dr. A. Brusly Solomon	Karunya - Israel Research Fellowship	1 week	2.50	2.50	Outcomes contributing to joint publications and funded research proposals
Mr. Bairi Levi Rakshith	Effect of internal evaporator and condenser on the thermal performance	6 months	0.15	0.15	Design and experimental evaluation of flat heat pipe completed
Dr. D. Arul Kirubakaran	Fabrication of NiTi shape memory composite using spark plasma sintering	6 months	0.15	0.15	NiTi composite fabricated using spark plasma sintering; experimental results generated for journal publication
Dr. Sabitha Jannet	3D printing of Composites with Variable Natural Fiber	4 months	0.05	0.05	Additively manufactured natural fiber composites fabricated; experimental validation completed
Dr. Sabitha Jannet	Friction Stir processing of Magnesium Alloy	4 months	0.05	0.05	Friction stir processed magnesium alloy developed; microstructural refinement and mechanical property improvement demonstrated
Dr. Sabitha Jannet	Friction Stir Welding of Inconel Alloys	4 months	0.05	0.05	FSW parameters optimized for Inconel alloys; weld integrity and mechanical properties evaluated
Dr. Sabitha Jannet	3D printing of Composites with Variable Natural Fiber	4 months	0.05	0.05	Design and fabrication of fiber-reinforced composite specimens completed; stiffness variation analyzed
Dr. Arul Kirubakaran	Robotic Assistance and Inventory management system for Libraries	4 months	0.05	0.05	Robotic and inventory management system developed
Dr. R. Raja	Synthesis and mechanical charecterisation of friction stir processed molybdenum based Al MMC	4 months	0.05	0.05	Hybrid composite synthesized via friction stir processing; mechanical properties evaluated; experimental data generated for publication
Dr. R. Raja	Synthesis and characterization of Al MMC	4 months	0.05	0.05	MMC specimens fabricated and characterized; mechanical behavior analyzed
Dr. R. Raja	Synthesis and characterization of Copper MMC	4 months	0.05	0.05	MMC specimens fabricated and characterized; mechanical behavior analyzed; feasibility of reinforcement approach validated
Dr. R. Raja	Synthesis and characterization of Al MMC	4 months	0.05	0.05	Composite synthesis and testing completed; results suitable for journal submission
Dr. Brusly Solomon	Thermal Controlling of heat pipes using Electromagnet	4 months	0.05	0.05	Active thermal control concept implemented; experimental validation carried out; proof-of-concept demonstrated (TRL-2)
Dr. S.J. Vijay	Design and analysis of end effector for robotic painter arm	4 months	0.05	0.05	End effector designed and structurally analyzed
Dr. S.J. Vijay	Fabrication and testing of end effector for robotic painter arm	4 months	0.05	0.05	Prototype end effector fabricated; TRL-3 level demonstration achieved
			Amount received (Rs.): 3.40		

Total amount (Lacs) received for the past 3 years : 4.97

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	Thermal Engineering Lab	3	Blower test Rig	3 hrs/Week	Mr. G. Lijo	Senior Mechai	Diploma in Me
2	Thermal Engineering Lab	3	Air Compressor test rig	3 hrs/Week	Mr. G. Lijo	Senior Mechai	Diploma in Me
3	Thermal Engineering Lab	3	Air- Conditioning test rig	3 hrs/Week	Mr. G. Lijo	Senior Mechai	Diploma in Me
4	Thermal Engineering Lab	3	Refrigeration test rig	3 hrs/Week	Mr. G. Lijo	Senior Mechai	Diploma in Me
5	Thermal Engineering Lab	3	Heat pump test rig	3 hrs/Week	Mr. G. Lijo	Senior Mechai	Diploma in Me
6	Thermal Engineering Lab	3	Boiler Unit	3 hrs/Week	Mr. G. Lijo	Senior Mechai	Diploma in Me
7	IC Engines Lab	3	Twin cylinder Dieel Engine.	4 hrs/ Week	Mr. G. Lijo	Senior Mechai	Diploma in Me
8	IC Engines Lab	3	Retardation test Rig.	4 hrs/ Week	Mr. G. Lijo	Senior Mechai	Diploma in Me
9	IC Engines Lab	3	Variable Compression Ratio test rig	4 hrs/ Week	Mr. G. Lijo	Senior Mechai	Diploma in Me
10	IC Engines Lab	3	Single Cylinder vertical Diesel Engine	4 hrs/ Week	Mr. G. Lijo	Senior Mechai	Diploma in Me
11	Computer Aided Manufacturing Lab	4	CNC Turning Center	3 hrs/Week	Mr. J. Samuel	Lab Technicia	Diploma in Me
12	Computer Aided Manufacturing Lab	4	CNC Trainer XI Mill	3 hrs/Week	Mr. J. Samuel	Lab Technicia	Diploma in Me
13	Computer Aided Manufacturing Lab	4	CNC Trainer XI Turn	3 hrs/Week	Mr. J. Samuel	Lab Technicia	Diploma in Me
14	Computer Aided Manufacturing Lab	4	CNC 4-Axes Trainer Mill	3 hrs/Week	Mr. J. Samuel	Lab Technicia	Diploma in Me
15	Computer Aided Manufacturing Lab	4	CNC Trainer Drilling Machine	3 hrs/Week	Mr. J. Samuel	Lab Technicia	Diploma in Me
16	Fluid Power Control lab	3	Hydraulic trainer kit	3 hrs/Week	Mr. K. Sivasan	Engineering Te	B.E. Mechanic
17	Fluid Power Control lab	3	Electro hydraulic trainer kit	3 hrs/Week	Mr. K. Sivasan	Engineering Te	B.E. Mechanic
18	Fluid Power Control lab	3	Pneumatic trainer kit	3 hrs/Week	Mr. K. Sivasan	Engineering Te	B.E. Mechanic
19	Fluid Power Control lab	3	Electro Pneumatic trainer kit	3 hrs/Week	Mr. K. Sivasan	Engineering Te	B.E. Mechanic

20	Fluid Power Control lab	3	Automation Studio Education Software (15 lic)	3 hrs/Week	Mr. K. Sivasan	Engineering Te	B.E. Mechanic
21	Computer Aided Design Lab	1	CREO	3 hrs/Week	Mr. J. Jeyasing	Lab Technician	Diploma in Me
22	Computer Aided Design Lab	1	Solidworks	3 hrs/Week	Mr. J. Jeyasing	Lab Technician	Diploma in Me
23	Computer Aided Design Lab	1	CATIA V5	3 hrs/Week	Mr. J. Jeyasing	Lab Technician	Diploma in Me
24	Computer Aided Design Lab	1	Ansys Workbench	3 hrs/Week	Mr. J. Jeyasing	Lab Technician	Diploma in Me
25	Dynamics Lab	4	Rotor Dynamic balancing machine	3 hrs/Week	Mr. J. Samuel	Lab Technician	Diploma in Me
26	Dynamics Lab	4	Whirling of shaft apparatus	3 hrs/Week	Mr. J. Samuel	Lab Technician	Diploma in Me
27	Dynamics Lab	4	Motorised Gyroscope	3 hrs/Week	Mr. J. Samuel	Lab Technician	Diploma in Me
28	Dynamics Lab	4	Torsional vibration apparatus	3 hrs/Week	Mr. J. Samuel	Lab Technician	Diploma in Me
29	Metallurgy Lab	3	Micro Hardness Testing Machine	3 hrs/Week	Mr. J. Samuel	Lab Technician	Diploma in Me
30	Metallurgy Lab	3	Computerized UTM Tensile testing Machine	3 hrs/Week	Mr. J. Samuel	Lab Technician	Diploma in Me
31	Metallurgy Lab	3	Four Ball Tester	3 hrs/Week	Mr. J. Samuel	Lab Technician	Diploma in Me
32	Metallurgy Lab	3	Medium Speed wire CNC wire EDM	3 hrs/Week	Mr. J. Samuel	Lab Technician	Diploma in Me
33	Metallurgy Lab	3	Hydraulic Universal Testing	3 hrs/Week	Mr. J. Samuel	Lab Technician	Diploma in Me
34	Metrology Lab	2	Coordinate Measuring Machine	6 hrs/week	Mr. K. Sivasan	Engineering Te	B.E. Mechanic
35	Metrology Lab	2	Mobile Surface Measuring Station	6 hrs/week	Mr. K. Sivasan	Engineering Te	B.E. Mechanic
36	Metrology Lab	2	Auto Collimator	6 hrs/week	Mr. K. Sivasan	Engineering Te	B.E. Mechanic
37	Metrology Lab	2	Digital Profile Projector	6 hrs/week	Mr. K. Sivasan	Engineering Te	B.E. Mechanic
38	Vibration Lab	3	Guarded plate Apparatus	3 hrs/Week	Mr. J. Samuel	Lab Technician	Diploma in Me
39	Vibration Lab	3	Rotary Balancing Machine	3 hrs/Week	Mr. J. Samuel	Lab Technician	Diploma in Me
40	Vibration Lab	3	Longitudinal Vibration of Spring mass system	3 hrs/Week	Mr. J. Samuel	Lab Technician	Diploma in Me
41	Heat Transfer Lab	3	Guarded plate Apparatus	4 hrs/week	Mr. R. Jayasee	Mechanic Gr.I	Diploma in Me
42	Heat Transfer Lab	3	Lagged pipe Apparatus	4 hrs/week	Mr. R. Jayasee	Mechanic Gr.I	Diploma in Me
43	Heat Transfer Lab	3	Natural and Forced Convection Apparatus	4 hrs/week	Mr. R. Jayasee	Mechanic Gr.I	Diploma in Me

44	Heat Transfer Lab	3	Pin-Fin Apparatus	4 hrs/week	Mr. R. Jayasee	Mechanic Gr.I	Diploma in Me
45	Heat Transfer Lab	3	Stefan Boltzmann Apparatus	4 hrs/week	Mr. R. Jayasee	Mechanic Gr.I	Diploma in Me
46	Heat Transfer Lab	3	Composite wall Apparatus	4 hrs/week	Mr. R. Jayasee	Mechanic Gr.I	Diploma in Me
47	Heat Transfer Lab	3	Emissivity Measurement Apparatus	4 hrs/week	Mr. R. Jayasee	Mechanic Gr.I	Diploma in Me
48	Heat Transfer Lab	3	Parallel and Counter flow Heat Exchanger	4 hrs/week	Mr. R. Jayasee	Mechanic Gr.I	Diploma in Me
49	3D Printing Lab	3	Ender 5 Plus FDM 3D Printers	6 hrs/week	Mr. J. Samuel	Lab Technicia	Diploma in Me

D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures
1	Thermal Engineering Lab	A. Basic Safety Measures Always wear safety shoes while operating any equipment. Know the locations of the first-aid kit and fire extinguisher. Before operating any machine, read the operating manual thoroughly. Do not leave the experiments unattended while it is in running condition. B. Lab-Specific Safety Measures Ensure that there is no gas leakage around. Do not touch any hot surfaces, especially when the machine is in operation. Do not operate any machine that smokes, sparks, or appears defective. Do not touch the electrical connections of the equipment. Do not use extension cords and power strips for power supply. Do not switch off the equipment suddenly when it is in running condition
2	IC Engines Lab	A. Basic Safety Measures Always wear proper safety shoes Be aware of the locations of first-aid kits, fire extinguishers, and emergency exits. Do not run or engage in horseplay inside the lab. Do not operate equipment without supervision or authorization. Do not leave experiments unattended while in operation. B. Lab-Specific Safety Measures Ensure all engine guards, belts, and covers are in place before starting. Verify that fuel supply lines and connections are secure and leak-free. Keep a safe distance from moving parts like flywheels, pulleys, and fans. Do not touch hot engine parts such as the exhaust manifold or cylinder head. Do not operate the engine if there are fuel leaks or abnormal sounds. Do not make adjustments to the engine while it is running.
3	Computer Aided Manufacturing Lab	A. Basic Safety Measures Always enter the lab in proper dress code and safety shoes. Be aware of the locations of the first-aid box and fire extinguisher. All personnel must be aware of the various machine controls (Start switch, Stop switch, Speed change control of each machine) and how to use them. Read and follow the operating manual. Work within the yellow marked lines as a safety precaution. Don't wear watches or other jewellery that could get caught in moving parts of the machinery. Don't let the hair loose; always tie up long hair. Don't remove or tear any safety label from the machine. B. Lab-Specific Safety Measures Before starting the automatic operation, check that the program entered is correct.
4	Lathe Shop	A. Basic Safety Measures Enter the lab with proper dress code. Switch OFF the electrical appliances before leaving the lab. Protect your hands and never reach towards moving parts. Don't use bare hands for removing chip material from the machine. Don't lean against the machines while operating them. Don't leave a machine unattended while it is in operation. B. Lab-Specific Safety Measures Be sure that all machines have effective and proper working guards. Move the carriage to a safe distance from the chuck while fixing or removing work. Always ensure that workpiece and cutting tools are clamped securely before starting. Do not shift gears in motion. Don't leave the chuck key in the chuck after fixing or removing the workpiece. Don't start the machine at high speeds with heavy jobs.
5	Fluid Power Control	A. Basic Safety Measures Be aware of the locations of the fire extinguisher and first-aid box in the lab. Return all components before leaving the lab. Switch OFF the electrical appliances before leaving the lab. Use proper gloves and safety measures while cleaning the oil spill in the vicinity of the equipment. Don't touch the oil leakage with bare hands. B. Lab-Specific Safety Measures Use proper tools to assemble and disassemble the sensors of the machines.

6	Automation and Robotics Lab	A. Basic Safety Measures Enter the lab with proper dress code. Be aware of the locations of the first-aid box and fire extinguisher. Switch OFF the electrical appliances before leaving the lab. Wear appropriate safety attire during the lab class. Don't mishandle any equipment in the laboratory. Don't touch power sockets when the switch is ON. Don't click any link from untrusted sources. B. Lab-Specific Safety Measures Check the connections before switching on the power supply. Don't plug in external devices and do not unplug any devices. Don't delete, install, or uninstall any software on the lab computer.
7	Computer Aided Design Lab	A. Basic Safety Measures Shutdown the computer when it is not in use. Adjust your seat so that your eyes are approximately 0.8 m away from the monitor. Know the locations of the fire extinguisher and first-aid box for emergency situations. Ensure that all the electrical appliances are turned OFF before leaving the lab. Don't click any link from untrusted sources. Don't select the "Remember My Password" option. B. Lab-Specific Safety Measures Report any broken plugs or electrical wires to the faculty in-charge / Lab in-charge / Lab Technician immediately. Don't change any settings in the computer.
8	Dynamics Lab	A. Basic Safety Measures Ensure proper and sufficient lighting in the lab. Don't rest against any machine. B. Lab-Specific Safety Measures Ensure all machines have effective machine guards that are always in place. Do not leave the machine until it comes to a complete stop. Ensure the workpiece and tools are clamped securely before starting the machine. Don't attempt to oil, clean, adjust, or repair any machine while it is running. Don't leave any tools or workpieces on the machine table, even when the machine is not running—items may fall and cause injury.
9	Metallurgy Lab	A. Basic Safety Measures Do wear appropriate personal protective equipment (PPE). Ensure the power cables are properly connected to the equipment before operation. Do not handle any electrical equipment with wet hands. Do not operate any equipment without authorization from the instructor. B. Lab-Specific Safety Measures Handle chemicals carefully while preparing or processing materials. Always close the lid of chemical containers after use. Keep your hands away from your face, eyes, and mouth when handling chemicals. Do not touch hot metal or heated components with bare hands.
10	Metrology Lab	A. Basic Safety Measures Switch OFF all electrical appliances before leaving. Clean the workpiece and instruments before use. Handle all measuring instruments with care. Don't handle any equipment without reading the instruction manual. B. Lab-Specific Safety Measures Select the appropriate measuring instrument for the required dimensions. Note down the specifications of the experimental setup before starting the experiment. Ensure that the measuring instrument is properly calibrated. Place slip gauges in their appropriate slots after use. Don't operate any measuring instrument up to its maximum value.
11	Special Machine Lab	A. Basic Safety Measures Keep the work area and tools clean with sufficient lighting. Protect your hands and never reach towards moving parts. Switch OFF all electrical appliances before leaving. Don't mishandle any equipment in the laboratory. Don't wear watches or other jewelry that could get caught in moving parts. B. Lab-Specific Safety Measures Ensure all machines have effective machine guards in place. Ensure that the workpiece and cutting tools are clamped securely before starting. Don't leave a machine unattended while it is in operation. Don't use bare hands to remove chip material from the machine. Don't shift gears while the machine is in motion.
12	Vibration Lab	A. Basic Safety Measures Always enter the lab in proper dress code with safety shoes. Ensure proper and sufficient lighting in the lab. Read and follow the operating manual. Do not talk unnecessarily while operating the machine. Don't let the hair loose; always tie up long hair. B. Lab-Specific Safety Measures Ensure all machines have effective machine guards that are always in place. Don't leave the machine until it stops running. Before starting the machine, make sure that work and tools are fixed firmly. Don't attempt to oil, clean, adjust, or repair any machine while it is running. Don't rest against the machine. Don't leave any tools or workpieces on the table of a machine even if it is not running.
13	Heat Transfer Lab	A. Basic Safety Measures Use safety shoes when operating any equipment. Avoid crowding near machines and maintain a safe working distance. Read the equipment manual thoroughly and follow all instructions. Consult the instructor whenever you need clarification on operating procedures. Do not run inside the laboratory; stay focused on the task at hand. Do not wear loose clothing, neckties, jewellery; long hair must be tied back. Do not leave an experiment unattended while the equipment is running. B. Lab-Specific Safety Measures Be aware of hot surfaces and electrical points and maintain appropriate safety distance. Do not operate any machine that smokes, sparks, or shows signs of malfunction. Do not switch off equipment abruptly when it is in running condition unless it is an emergency.

14	Mechatronics Lab	A. Basic Safety Measures Be aware of the locations of the fire extinguisher and first-aid box. Return all components before leaving. Switch OFF all electrical appliances before leaving the lab. Don't touch the equipment while in operation. B. Lab-Specific Safety Measures Use proper tools to assemble and disassemble sensors of the machines. Handle the equipment and components with utmost care since maximum operating pressure is 10 bar. Check electric power cables, air supply lines, and connectors before switching ON the circuit. Don't try to connect or remove any component while the circuit is in operation.
15	Fitting, Carpentry, Sheet Metal	A. Basic Safety Measures Wear proper Personal Protective Equipment (PPE). Tools not in use should always be kept at their proper places. Don't mishandle any equipment in the laboratory. B. Lab-Specific Safety Measures Ensure the workpiece is clamped firmly and securely in the vice. Test the sharpness of the cutting tool before use. Use the tools with properly fitted handles. Don't allow hands to come in contact with sharp edges. Wooden pieces with nails should never be left on the floor. Don't use hammers with a loose head.
16	Micro & Nano Heat Transfer Lab	A. Basic Safety Measures Maintain a clean and organized work area with proper lighting and ventilation. Be aware of the locations of first-aid kits, fire extinguishers, and emergency exits. Read and follow the instructions and manuals before operating any equipment. Do not operate any equipment without supervision or authorization. Do not leave experiments unattended while in operation. B. Lab-Specific Safety Measures Handle all micro and nano-scale instruments carefully to avoid damage. Ensure electrical connections, heaters, and sensors are properly secured before starting experiments. Use appropriate tools and procedures when working with thermal sensors, microfluidic devices, or lasers. Follow calibration and setup protocols precisely to avoid measurement errors. Do not touch hot surfaces, lasers, or nano-heating elements while in operation. Do not use incompatible chemicals or fluids in micro/nano channels. Do not force or overload sensitive instruments, such as micro sensors, scanning probes, or precision stages. Do not leave fragile instruments exposed or improperly stored.
17	3D Printing Lab	A. Basic Safety Measures Ensure the power cable is fixed to the printer and plugged into the UPS. Check the availability of enough filament in the spool. Clean the surface of the print bed before proceeding. Pre-heat the nozzle and print bed before printing. Do not touch the print bed or hot end nozzle while printing. Do not obstruct the movement of the nozzle while printing. Do not try to remove printed components with bare hands. B. Lab-Specific Safety Measures Wear a face mask and latex gloves while working with resin printers. Wash hands and tools after working with the resin printer. Do not touch or make contact with the UV-curable photosensitive resin. Do not expose the resin while the printer is in operation. Do not wash or cure components without proper enclosure.
18	Welding and Foundry, Smithy Lab	A. Basic Safety Measures Wear proper Personal Protective Equipment (PPE), including goggles, gloves, and face shields. Check the work area for flammable materials. Clean the floor before starting work. Don't carry out the experiment in an enclosed location. Don't begin work without fire extinguishers readily accessible. B. Lab-Specific Safety Measures Secure all gas cylinders properly. Store all gas cylinders upright, with the valve end facing upwards. Don't allow hands to come in contact with sharp edges when opening cans of electrodes. Don't work where sparks can escape and contact combustible materials. Don't transport cylinders without their caps in place.
19	Thermal Sciences Lab	A. Basic Safety Measures Maintain a clean and organized workspace with adequate lighting and ventilation. Be aware of the locations of first-aid kits, fire extinguishers, and emergency exits. Read and follow the instructions and manuals before operating any equipment. Do not operate any equipment without supervision or authorization. Do not leave experiments unattended while in operation. B. Lab-Specific Safety Measures Handle all thermal instruments and sensors carefully to avoid damage. Ensure connections, heaters, thermocouples, and sensors are properly secured before starting experiments. Use appropriate tools and procedures for working with heat exchangers, calorimeters, and advanced thermal measurement devices. Follow calibration and setup protocols precisely to avoid measurement errors. Do not touch hot surfaces, heating elements, or thermal sensors during operation. Do not use incompatible fluids, chemicals, or materials in thermal systems. Do not force or overload sensitive instruments, such as thermocouples, heat flux sensors, or data acquisition systems. Do not leave fragile instruments exposed or improperly stored

20	AMZ Automotive Lab	A. Basic Safety Measures Always enter the lab in proper dress code with safety shoes. Wear mask, safety shoes, and gloves during the experiment. Ensure proper and sufficient lighting in the lab. Switch OFF all electrical appliances before leaving. Don't mishandle any equipment in the laboratory. Don't let the hair loose; always tie up long hair. B. Lab-Specific Safety Measures Before starting the machine, ensure that tools and workpiece are fixed firmly. Ensure all machines have effective machine guards in place. Don't wear watches or other jewelry that could get caught in moving parts. Do not rest against the machine. Don't leave a machine unattended while in operation. Don't attempt to lubricate, clean, or repair any part of the machine during operation.
21	Center for Research in Metallurgy (CRM)	A. Basic Safety Measures Maintain a clean and organized workspace with proper lighting and ventilation. Be aware of the locations of first-aid kits, fire extinguishers, and emergency exits. Do not operate equipment without supervision. Do not leave experiments unattended. B. Lab-Specific Safety Measures Handle metallurgical samples and instruments carefully to avoid damage. Ensure furnaces, melting units, and testing equipment are properly secured and checked before operation. Follow proper procedures for heating, casting, and metallurgical testing. Do not touch hot samples, furnaces, or molten metal directly. Do not use incompatible chemicals or fluxes in metallurgical processes. Do not force or overload sensitive instruments, such as microscopes or hardness testers.
22	Center for Research in Design and Manufacturing (CRDM) Lab	A. Basic Safety Measures Ensure the work area is clean and tidy. Protect your hands & never reach towards moving parts. Turn OFF the power completely before leaving the work area. Don't mishandle any equipment in the laboratory. B. Lab-Specific Safety Measures Ensure all machines have effective machine guards in place. Ensure that work and tools are clamped securely before starting. Ensure the mounting surface is flat before connecting the dynamometer or any tool. Don't use bare hands to remove chip material from the machine. Don't leave a machine unattended while it is in operation. Don't attempt to lubricate, clean, or repair any part of the machine during operation. Don't leave tools or workpieces on the machine table even if the machine is not running.
23	Centre for Research in Renewable Energy and Waste management(CRRE&WM)	A. Basic Safety Measures Keep the workspace clean and organized with proper lighting and ventilation. Know the locations of first-aid kits, fire extinguishers, and exits. Do not operate equipment without supervision. Do not leave experiments unattended. B. Lab-Specific Safety Measures Handle all devices, reactors, and sensors carefully. Ensure connections, valves, and instruments are secure before starting. Follow proper setup and operating procedures Do not touch hot surfaces, moving parts, or chemical containers. Do not use incompatible chemicals or waste materials.
24	Center for Research in Material Science and Thermal Management (CRMS & TM)	A. Basic Safety Measures Maintain a clean and organized workspace with proper lighting and ventilation. Be aware of the locations of first-aid kits, fire extinguishers, and emergency exits. Do not operate equipment without supervision. B. Lab-Specific Safety Measures Handle material samples, thermal instruments, and sensors carefully. Ensure all connections, heaters, and measurement devices are secure before starting experiments. Follow proper setup, calibration, and testing procedures. Do not touch hot surfaces, moving parts, or sensitive instruments. Do not use incompatible materials or chemicals in experiments. Do not force or overload equipment or sensors

D3. Project Laboratory/Research Laboratory

A. Availability of project laboratories/research laboratories
The Department provides well-established project and research laboratories equipped with modern hardware, software, and prototyping facilities. These spaces support UG/PG projects, funded research, and interdisciplinary innovation.

B. Availability of Centre for Research
A dedicated Centre is available to promote advanced skill development, industry–academia collaboration, and exposure to emerging technologies. It serves as a specialized hub for training, research, and innovation activities.

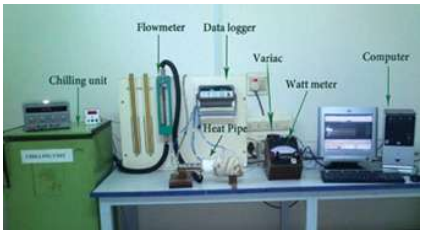
C. Utilization of project laboratories/research laboratory/Centre of Excellence
These facilities are effectively utilized by students and faculty for curriculum-based projects, consultancy, research publications, internships, and competitions. Utilization registers, project records, and activity logs demonstrate regular and purposeful engagement.

D. Relevance to POs/PSOs
All activities carried out in project labs, research labs, and the Centre of Research are systematically mapped to relevant POs and PSOs. They contribute significantly to design skills (PO3), research aptitude (PO4), problem-solving ability (PO1&PO2), teamwork (PO9), and lifelong learning outcomes (PO12) and support all the program specific outcomes (PSOs).

Table No. 7.5.1: List of project laboratory/research laboratory /Centre of Excellence.

S. No.	Name of the Laboratory	Project Laboratory / Research Laboratory / Centre of Excellence
1.	Center for Research in Material Science and Thermal Management (CRMS&TM)	Centre for Research
2.	Centre for Research in Design and Manufacturing Engineering (CRDM)	
3.	Center for Research in Metallurgy (CRM)	
4.	Centre for Research in Renewable Energy and Waste management(CRRE&WM)	
5.	Thermal Sciences Lab	Research Laboratory
6.	Micro & Nano Heat Transfer Lab	
7.	Mechatronics Lab	
8.	Automation and Robotics Lab	
9.	AMZ Automotive Lab	Project Laboratory
10	Welding and Foundry, Smithy Lab	
11.	Fitting, Carpentry, Sheet Metal	
12.	Special Machine Lab	
13.	Lathe Shop	

HIGHLIGHTS OF RESEARCH CENTRES

Name of Research Centre	Facilities available for research, consultancy and testing
CENTRE FOR RESEARCH IN MATERIAL SCIENCE AND THERMAL MANAGEMENT (CRMS & TM)  Heat Pipe Experimental Set-up	Heat Pipe research facilities Plasma heating facilities Hybrid Metal Matrix Composites Nanofluid heat transfer research facilities
Key Outcomes during the assessment Years Funded Projects - 465.12 lakhs Consultancy - Rs. 4,36,332/-	

THE CENTRE FOR RESEARCH IN DESIGN AND MANUFACTURING ENGINEERING (CRDM)  Automatic precision surface grinding machine	Centre lathe with variable speed and feed drive (Kirloskar make) Automatic precision surface grinding machine (Craftsman make) Universal milling machine (BFW Make) Sprark erosion Machine (Vidunt make) Radial Drilling Machine with variable feed drive (CKP Make) Kistler multicomponent dynamometer Metallurgical microscope (VFM9100 – Metzer make) Surface roughness tester (Mitutoyo Make) Electronic Top Loading Balance (Shimadzu make) Drill Tool and Mill Tool Dynamo Meter Magnatic Scales (DRO – Electronica make) Infrared Thermometer (Amprobe make) Triaxial accelerometer (Dytran Make) Qualitek – 4 Software Minitab – 15 Software
Key Outcomes during the assessment Year Funded Projects - 39 lakhs Consultancy - Rs. 5,75,495/-	
CENTRE FOR RESEARCH IN METALLURGY (CRM)  Wire Cut Electrical Discharge Machine (EDM)	Metallurgical Microscope Image acquisition and Image analysis Microhardness Tester CRT display, Output using a printer Wear & Friction Monitor System (POD Machine) Computer interface, Dry sliding wear, Wet sliding wear, High temperature wear, Abrasive wear Stir Casting Facility Automatic retraction mechanism, Motorized stirrer arrangement, Maximum temperature: 1200° C Specimen preparation facilities Twin disk Polisher and Motorized cutter Tensile Testing Machine Fully automated, computer integrated tensile testing machine, 25kN capacity. Ultrasonic Flaw Detector for testing welded and cast samples. Four Ball Tester

Key Outcomes during the assessment Year Funded Projects - 69.98 lakhs Consultancy - Rs. 4,71,414/-	
CENTRE FOR RESEARCH IN RENEWABLE ENERGY AND WASTE MANAGEMENT (CRRE&WM)  Fixed Bed Pyrolysis Reactor	Pyrolysis reactor (2kg) Ball mill Pulveriser Biogas plant (fixed dome type and floating drum type) Gas chromatograph Biomass gasifier Sieve shaker with test sieves Flue gas analyzer Multi-fuel test engine test rig
Key Outcomes during the assessment Year Funded Projects - 612.25 Lakhs	

KEY RESEARCH PROJECTS IN THE RESEARCH CENTRES/ PROJECT LABS

1. Project: Design and Development of Sintered Nickel Wick Structure for Loop Heat Pipe Applications
Date of Approval: 20.11.2025
Sponsoring Agency: Avasarala Technologies Pvt. Ltd., Bengaluru
Principal Investigator: Dr. A. Brusly Solomon
Co-PIs: Dr. David Raja Selvam, Dr. A. Albert Rajan
Year Started: 2025
Amount: ₹33.9304 lakhs

2.Project: Experimental Investigation of a Novel Low Temperature MED Desalination Technology
Date of Approval: 01.07.2024
Sponsoring Agency: MoES-DOM
Principal Investigator: Dr. L. Godson Asirvatham
Co-PIs: Dr. B. Jefferson Raja Bose, Dr. Justin Robert Paden
Year Started: 2024
Amount: ₹447.4516 lakhs

3. Project: Development of an Eco-Friendly Sustainable Technology – A Pilot Plant to Recycle Non-Ferrous Metallic Waste Scraps
Date of Approval: 06.11.2024
Sponsoring Agency: DST-TTI-WMT
Principal Investigator: Dr. S.J. Vijay
Co-PIs: Dr. M. Wilson Kumar, Dr. Madhu Ganesh
Year Started: 2024
Amount: ₹69.98 lakhs

4. Project: Scale Up of Heat Pipe-Assisted Hybrid Solar Drying System for Agricultural Products in Tribal Areas
Date of Approval: 16.12.2024
Scope: Design and develop solar-assisted dryer for tribes near Western Ghats
Sponsoring Agency: IIT Palakkad Technology iHub Foundation
Principal Investigator: Dr. A. Asha Monicka
Co-PI: Dr. A. Brusly Solomon
Year Started: 2024
Amount: ₹9.99 lakhs

5. Project: SUJEEV – Design and Development of Smart Steps for Elderly or Differently-Abled People in Public Vehicles
Duration: 11.10.2021 to 23.10.2024 (Extended to 10.02.2025)
Scope: Dynamic steps for safer travel in rural/remote public transport
Sponsoring Agency: SEED-TIDE
Principal Investigator: Dr. Gadudasu Babu Rao
Co-PIs: Dr. Praveen Kumar Bannaravuri, Dr. Masepogu Wilson Kumar
Year Started: 2021
Amount: ₹25.5826 lakhs

6. Project: Development of Flexible Heat Pipes for Space Applications
Date of Approval: 13.01.2022
Sponsoring Agency: ISRO
Principal Investigator: Dr. A. Brusly Solomon

Co-PI: Dr. L. Godson Asirvatham
Year Started: 2022
Amount: ₹17.67 lakhs

7. Project: Development of IoT-Based Magnetorheological Foam Damper to Control Tool Vibration
Duration: 18.02.2022 to March 2025
Sponsoring Agency: AICTE-RPS
Principal Investigator: Dr. P. Sam Paul
Co-PI: Dr. X. Ajay Vasanth
Year Started: 2022
Amount: ₹15.9985 lakhs

8. Project: High Performance Integrated Two-Stage Electrochemical Technology for Recovery of Water from Electroplating Effluent
Duration: 08.09.2020 to Nov 2025
Scope: Real-time monitored recovery of water from electroplating effluent
Sponsoring Agency: DST – Technology Mission Division
Principal Investigator: Dr. P. Jegathambal
Co-PI: Dr. Sabitha Jannet
Year Started: 2020
Amount: ₹43.2476 lakhs

9. Project: Design of 2 TPD Rotary Kiln Gasification Pilot Plant for High CV Syngas Production
Duration: 23.03.2021 to 22.06.2025
Scope: Convert plastic waste into high-calorific-value syngas
Sponsoring Agency: DST-TDT-WMT
Principal Investigator: Dr. Madhu Ganesh
Co-PI: Dr. S. Joseph John Marshal
Year Started: 2021
Amount: ₹612.25 lakhs

10. Project: SWASTHYA – Development of Cost-Effective Cervical Cancer Screening Unit Based on Smartphone Technology
Duration: 23.03.2021 to 22.12.2022
Scope: Creation of image database using the Specanoscope for rural screening
Sponsoring Agency: DST – BDTD
Principal Investigator: Dr. Kumudha Raimond
Co-PIs: Dr. G. Babu Rao, Dr. Sujitha Juliet, Dr. Suganthi Kirubakaran
Year Started: 2021
Amount: ₹18.53153 lakhs

PATENTS IN THE RESEARCH CENTRES/ PROJECT LABS

S.No	Name of the Faculty	Title of the Product	Application No.	Journal No.	Date of Application	Publication Date	Application Status	Applicant
2025-26								
1	Dr. A. Brusly Solomon Mr. R. Jayaseelan	Ultra-Low Temperature Cooling System Using Capillary-Tube-Modified Loop Heat Pipe	202541059068	26/2025	19/06/2025	27/06/2025	**Published**	KITS
2	Bairi Levi Rakshith Godson Asirvatham Lazarus P Sam Paul Anitha Angeline Appadurai D. S. Shylu Sam	MAGNETO RHEOLOGICAL FLUID DAMPER INTEGRATED WITH HEAT PIPE COOLING SYSTEM	202541081995	36/2025	11-08-2025	05-09-2025	**Published**	KITS
3	Bairi Levi Rakshith Godson Asirvatham Lazarus Anitha Angeline Appadurai Mr. Samuel Gladson UTK21ME1001)	Self-Sustained Passive Cooling System for Advanced Thermal Management	202541081047	38/2025	26/08/2025	19/09/2025	**Published**	KITS

4	Dr. A Brusly Solomon Dr. Madhu Ganesh Nidhin A R Akhil Jaiswal Devaraju G Dr. Anand A R Dr. Venkata Raghavendra	MULTI-MATERIAL AMMONIA-BASED FLEXIBLE HEAT PIPE WITH HIGH PRESSURE BELLOW FOR SPACE APPLICATIONS	202541092432	44/2025	26/09/2025	31/10/2025	**Published**	KITS
2024-25								
1	Mr. Tadala Ravi Dr. Babu Rao Dr. Praveen Kumar Dr. Wilson Kumar	Accessible Boarding System for Elderly Individuals with Lower Limb Challenges in Public Transportation	431479-001	46/2024	24.09.2024	15.11.2024	**Published**	KITS
2	Bairi Levi Rakshith Lazarus Godson Asirvatham Anitha Angeline Appadurai Sherlee Singamala	Vapour Chamber System	202441090211	48/2024	20/11/2024	29/11/2024	**Published**	KITS
3	Dr. G. Babu Rao Dr. Praveen Kumar Bannaravuri Dr. M. Wilson Kumar Mr. Alfred Sunny Dr. Mona Sahu Mr. Y. Wilburt Moses Paul (PR14ME1004), Mr. Rohit Scariah Reji (UR15ME124), Mr. Sam Jeffrey Praveen(UR16ME157)	An Escalator for Lifting the Elderly or Physically Challenged Person from Ground Level	202041019684	22/2020	09.05.2020	29.05.2020	**Granted** 558551 4/2025 24/01/2025	KITS
2023-24								
1	Pullanikkat Abishek, (URK19ME1028)	A System of Power Generating Tile	202341042327	35/2023	23/06/2023	01-09-2023	**Published**	KITS
2	1) Pullanikkat Abishek (URK19ME1028) 2) Sakhineti Joel Varma (URK20ME1042) 3) P B Febin Joseph (URK20ME1029) 4)Dr. Godson Asirvatham	Smart Vacuum Salon Chair System	202341051113	35/2023	29/07/2023	01-09-2023	**Published**	KITS

3	Dr. Mona Sahu Dr. G. Babu Rao Dr. M. Wilson Kumar Dr. S.J. Vijay Mr. Paga Jacob Basil Roy (UR16ME048) Mr. Konduru Srinivasa Chankravarthy (UR16ME030) Mr. Dokka Prem Prasanth (UR16ME024)	An Artificial Intelligent Ergonomic Stand for Laptop	202041050701	49/2020	21.11.2020	04.12.2020	**Granted** 473969 48/2023 01/12/2023	
4	Dr. I. Kantharaj Dr. M. Sekar	Multi Finned Heat Pipe Embedded Boring Tool	201941032859	38/2019	14.08.2019	20.09.2019	**Granted** 475376 49/2023 08/12/2023	
5	Dr.Trijo Tharayil Dr. L. Godson Asirvatham	A Coolant Pipe for Concrete Roof	202141021161	24/2021	10.05.2021	11.06.2021	**Granted** 484245 51/2023 22/12/2023	
6	Dr. A. Brusly Solomon Mr. A. L. Sriram Sudhan (RRK17ME002)	Anodized micro fins for enhanced heat transfer in heat pipes with ammonia as working fluid	202041020927	23/2020	18.05.2020	05.06.2020	**Granted** 488129 52/2023 29/12/2023	
7	Dr. A. Brusly Solomon Mr. A. DAYA Mr. R. Jayaseelan	Cost-Effective Temperature-Controlled Flask for Drinking Water	202341081675	52/2023	01-12-2023	29/12/2023	**Published**	KITS
8	Dr. S. J. Vijay Mr. Sharon Topno Dr. A. Brusly Solomon	A Friction Stir Welding Device and the Method Involved Thereof	202041037266	37/2020	28/08/2020	11-09-2020	**Granted** 489797 52/2023 29/12/2023	KITS
9	Dr. L. Godson Asirvatham Mr. Kevin Thomas Kuttothara (UR11ME106)	Modified expander re-heat cycle within a spherical combustor for gas turbine and other applications	6923/CHE/2015	25/2017	16.12.2015	23.06.2017	**Granted** 491258 01/2024 05/01/2024	KITS
10	Mr. Bairi Levi Rakshith Dr. L. Godson Asirvatham Dr. Anitha Angeline Appadurai	Velocity Induced Thermosyphon System Embedded With Convergent Divergent Nozzle To Enhance The Velocity Of The Working Fluid	202441000631	06-2024	04-01-2024	09-02-2024	**Published**	KITS

11	Dr. S.J. Vijay	A Half Coil Manufactured From A Novel Composition For Brushless Dc Motor Windings With Improved Efficiency	202141016081	16/2021	05.04.2021	16.04.2021	**Granted** 509624 07/2024 16/02/2024	KITS
12	Dr. Mona Sahu Dr. S.J. Vijay Dr. M. Wilson Kumar Dr. G. Babu Rao Mr. Emmanuel Desouza Mr. Ezekiel Samuel Walter (UR14ME021)	Intelligent Ergocomputer Chair	202041046653	03-2021	26.10.2020	15.01.2021	**Granted** 528587 12/2024 22/03/2024	KITS
13	Dr. R. Raja Dr. S.J. Vijay Dr. Tapas Debnath Dr. Sabitha Jannet Dr. L. Godson Asirvatham	Improved Backing Plates with Cooling for Friction Stir processing	202241009227	10-2022	21.02.2022	11.03.2022	**Granted** 529377 12/2024 22/03/2024	KITS
14	Dr. Lazarus Godson Asirvatham and Trijo Tharayil (RR14ME002)	Mini Loop Thermosyphons	201741029966	14/2024	24.08.2017	27.10.2017	**Granted** 530725 14/2024 05/04/2024	KITS
15	Dr. Gadudasu Babu Rao Mr. R. Jobel Jose (PRK17ME6005), Mr. Tummuru Vijay Kanth (UR15ME081), Dr. J. Gnanaraj, KITS	Specnoscope - A Medical Device for Cervical Cancer Screening	201941048985	50/2019	28.11.2019	13.12.2019	**Granted** 535283 18/2024 03/05/2024	KITS
2022-23								
1	Dr. Gadudasu Babu Rao Mr. Limson Mathew Dr. Kumuda Raimond Dr. D. Sujitha Juliet Dr. Kurinji Priya	Specnoscope Plus - An Indigenous Cervical Cancer Screening Unit	202241060190	44/2022	21.10.2022	04.11.2022	**Published**	KITS
2	Dr. Lazarus Godson Asirvatham and Kevin Thomas Kuttothara (UR11ME106)	Rotating spherical fuel injector within a spherical combustor for gas turbine and other applications	6924/CHE/2015	25/2017	16.12.2015	23.06.2017	**Granted** 405874 36/2022 **09/09/2022**	KITS

3	Mr. Rittin Abraham Kurien (RP16ME012) Dr. D. Philip Selvaraj	Process of Preparing MWCNT, ABACA Fiber and Epoxy based Reinforced Nanocomposite Laminate and Product Thereof	202041046417	03-2021	24.10.2020	15.01.2021	**Granted** 433781 23/2023 **09/06/2023**	KITS

PART E: First Year faculty and financial Resources

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

E1. First Year Student-Faculty Ratio (FYSFR)

Table No. E1.1: FYSFR details.

Year	Sanctioned intake of all UG programs (S4)	No. of required faculty (RF4= S4/20)	No. of faculty members in Basic Science Courses & Humanities and Social Sciences including Management courses (NS1)	No. of faculty members in Engineering Science Courses (NS2)	Percentage= No. of faculty members ((NS1*0.8) + (NS2*0.2))/(No. of required faculty (RF4)); Percentage= ((NS1*0.8) + (NS2*0.2))/RF
2023-24(CAYm2)	1650	82	54	83	73
2024-25(CAYm1)	1650	82	51	87	71
2025-26(CAY)	1500	75	51	69	73

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

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

Items	Budgeted in 2025-26	Actual Expenses in 2025-26 till	Budgeted in 2024-25	Actual Expenses in 2024-25 till	Budgeted in 2023-24	Actual Expenses in 2023-24 till	Budgeted in 2022-23	Actual Expenses in 2022-23 till
Infrastructure Built-Up	37819000	16406978	15739250	16782529	14293000	46186347	22684500	48675115
Library	3170000	696702	3225800	752858	2740000	371867	4035000	1857651
Laboratory equipment	233278275	64724748	193004686	69494419	195857557	94447319	160823754	99213351
Teaching and non-teaching staff	631373270	445109035	689880254	637062952	665563445	667552837.4	610809611	626635051
Outreach Programs	2605000	1678688	2740200	2149412	2626868	1515824	8316960	3169691
R&D	74355136	7965046	36367280	64991108	32637280	58448735	15882065	86405960
Training, Placement and	23135850	24899801	23135850	21646776	15751850	14253129	13582215	15502032
SDGs	7000000	5514085	12000000	11076745	7000000	6797754	15000000	14211361
Entrepreneurship	11023537	7014239	11023537	4122987	10950295	4046453	6662778	3987601
Others, specify	637651141	436048998	642932752	568251060	633907173	518871962	560333609	568593435
Total	**1661411209**	**1010058320**	**1630049609**	**1396330846**	**1581327468**	**1412492227.4**	**1418130492**	**1468251248**

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

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

Items	Budgeted in 2025-26	Actual Expenses in 2025-26 till	Budgeted in 2024-25	Actual Expenses in 2024-25 till	Budgeted in 2023-24	Actual Expenses in 2023-24 till	Budgeted in 2022-23	Actual Expenses in 2022-23 till
Laboratory equipment	7215500	358690	730000	640731	3768000	1290376	1020000	2799543
Software	1274974	291843	1276843	1066959	1279035	1022378	1623667	1214821
SDGs	165812	130614	284904	262984	166479	161669	448692	425102
Support for faculty development	18750	4000	18750	1064	18750	0	18750	8170
R & D	493780	302165	418780	415040	368780	668536	368780	1092886
Industrial Training, Industry expert,	140000	387049	140000	516237	140000	270262	127500	192667
Miscellaneous Expenses*	7314667	3903408	7739110	5931060	7391115	6357186	7177945	10354960
Total	**16623483**	**5377769**	**10608387**	**8834075**	**13132159**	**9770407**	**10785334**	**16088149**