NATIONAL BOARD OF ACCREDITATION

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

Program Name : Mechanical Engineering	**Discipline**: Engineering & Technology
Level : Under Graduate	**Tier**: 2
Application No: 11203	**Date of Submission**: 11-12-2025

PART A- Profile of the Institute

A1.Name of the Institute: Mangalam College of Engineering	
Year of Establishment : 2002	Location of the Institute: Ettumanoor
A2. Institute Address:MANGALAM COLLEGE OF ENGINEERING MANGALAM HILLS VETTIMUKAL .P.O ETTUMANOOR	
City:Kottayam	State:Kerala
Pin Code:686631	Website:www.mangalam.ac.in
Email:rajesh.roy@mangalam.in	Phone No(with STD Code):0481-2710120
A3. Name and Address of the Affiliating University (if any):	
Name of the University : Mahatma Gandhi University Kottayam Kerala	City: Thiruvananthapuram
State : Kerala	Pin Code: 695016
A4. Type of the Institution: Self-Supported Institute	
A5. Ownership Status: Self financing	

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

- No. of UG programs: **10**
- No. of PG programs: **7**

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

Sr.No.	Discipline	Level of program	Name of the program	Year of Start	Year of Closed	Name of The Department
1	Computer Application	PG	Master of Computer Application	2022	--	Computer Application
2	Engineering & Technology	UG	Artificial Intelligence and Machine Learning	2021	--	Artificial Intelligence and Machine Learning
3	Engineering & Technology	UG	Chemical Engineering	2021	--	Chemical Engineering
4	Engineering & Technology	UG	Civil Engineering	2010	--	Civil Engineering
5	Engineering & Technology	Diploma	Civil Engineering	2020	--	Civil Engineering
6	Engineering & Technology	Diploma	Computer Engineering	2020	--	Computer Engineering
7	Engineering & Technology	UG	Computer Science and Business System	2024	--	Artificial Intelligence and Machine Learning
8	Engineering & Technology	UG	Computer Science and Engineering	2002	--	Computer Science and Engineering
9	Engineering & Technology	PG	Computer Science and Engineering	2012	--	Computer Science and Engineering
10	Engineering & Technology	UG	Electrical & Electronics Engineering	2002	--	Electrical and Electronics Engineering
11	Engineering & Technology	Diploma	Electrical and Electronics Engineering	2020	--	Electrical and Electronics Engineering
12	Engineering & Technology	UG	Electronics & Communication Engineering	2002	--	Electronics and Communication Engineering
13	Engineering & Technology	UG	Electronics & Computer Engineering	2024	--	Electronics and Communication Engineering
14	Engineering & Technology	PG	Industrial Engineering and Management	2010	--	Mechanical Engineering
15	Engineering & Technology	UG	Mechanical Engineering	2004	--	Mechanical Engineering
16	Engineering & Technology	Diploma	Mechanical Engineering	2020	--	Mechanical Engineering
17	Engineering & Technology	Diploma	Polymer Technology	2020	--	Polymer Technology
18	Engineering & Technology	PG	Power Electronics & Power Systems	2012	--	Electrical and Electronics Engineering
19	Engineering & Technology	UG	Safety & Fire Engineering	2024	--	Chemical Engineering
20	Engineering & Technology	PG	Structural Engineering & Construction Management	2014	--	Civil Engineering
21	Engineering & Technology	PG	VLSI & Embedded Systems	2011	--	Electronics and Communication Engineering
22	Management	PG	Master of Business Administration	2005	--	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
Computer Science and Engineering	Yes	Computer Science and Engineering	UG
Civil Engineering	No	Civil Engineering	UG
Mechanical Engineering	No	Mechanical Engineering	UG
Electronics and Communication Engineering	Yes	Electronics & Communication Engineering	UG

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

No Record

PART-B: Program information

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

Table No. B1: Program details.

A. List of the Programs Offered by the Department:

SR.NO.	PROGRAM NAME	PROGRAM APPLIED LEVEL	YEAR OF START / YEAR OF CLOSED	SANCTIONED INTAKE	INCREASE/ DECREASE INTAKE (if any)	YEAR OF INCREASE/ DECREASE	CURRENT INTAKE	YEAR OF AICTE APPROVAL	AICTE/COMPETENT AUTHORITY ARROVAL DETAILS	ACCREDITATION STATUS	FROM	TO	NO. OF TIMES PROGRAM ACCREDITED	PROGRAM DURATION
1	Mechanical Engineering	UG	2004 / --	60	Yes	2024	60	2024	South-West/1-44641396927/2025/EOA	Granted accreditation for 3 years for the period (specify period)	2023	2026	1	4

Sanctioned Intake for Last Five Years for the Mechanical Engineering	
Academic Year	**Sanctioned Intake**
2025-26	60
2024-25	60
2023-24	90
2022-23	90
2021-22	90
2020-21	90

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. Arun Jose
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	90	90	90	90	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	61	39	59	81	71	71	93
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	5	6	10	3	6	6
N3=Separate division if any	0	0	0	0	0	0	0
N4=Total no. of students admitted in the 1st year via all supernumerary quotas	0	0	0	0	0	0	0
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	61	44	65	91	74	77	99

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	61	0	101.67
2024-25 (CAYm1)	60	39	0	65.00
2023-24 (CAYm2)	90	59	0	65.56

Average [(ER1 + ER2 + ER3) / 3] = 77.41≡ 14.00

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).	93.00	96.00	126.00
B=No. of students who graduated from the program in the stipulated course duration	10.00	15.00	40.00
Success Rate (SR)= (B/A) * 100	10.75	15.62	31.75

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 19.37

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)
Mean of CGPA or mean percentage of all successful students(X)	7.18	6.37	7.21
Y=Total no. of successful students	2.00	3.00	8.00
Z=Total no. of students appeared in the examination	39.00	61.00	82.00
API [X*(Y/Z)]	0.37	0.31	0.70

Average API[(AP1+AP2+AP3)/3] : 0.46

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

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

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
X=(Mean of 2nd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 2rd year/10)	6.70	7.45	7.13
Y=Total no. of successful students	2.00	8.00	10.00
Z=Total no. of students appeared in the examination	9.00	18.00	14.00
API [X * (Y/Z)]	1.49	3.31	5.09

Average API [(AP1 + AP2 + AP3)/3] : 3.30

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

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

Academic Performance	CAYm1 (2024-25)	CAYm2 (2023-24)	CAYm3 (2022-23)
X=(Mean of 3rd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 3rd year/10)	7.65	7.08	6.95
Y=Total no. of successful students	8.00	10.00	15.00
Z=Total no. of students appeared in the examination	8.00	10.00	17.00
API [X*(Y/Z)]:	7.65	7.08	6.13

Average API [(AP1 + AP2 + AP3)/3] : 6.95

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	93.00	96.00	126.00
X=No. of students placed	30.00	55.00	69.00
Y=No. of students admitted to higher studies	1.00	2.00	4.00
Z= No. of students taking up entrepreneurship	0.00	0.00	1.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	33.33	59.38	58.73

Average Placement Index = (P_1 + P_2 + P_3)/3: 50.48 Placement Index Points:

PART C: Faculty Details in Department and Allied Departments

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

C1. Faculty details of Department and Allied Departments

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

Sr.No	Name of the Faculty	PAN No.	Highest degree	University	Area of Specialization	Date of Joining in this Institution	Experience in years in current institute	Designation at Time Joining in this Institution	Present Designation	The date on which Designated as Professor/ Associate Professor if any	Nature of Association (Regular/ Contract/ Ad hoc)	Currently Associated (Y/N)	In case of NO, Date of Leaving	IS HOD?
1	Dr. Arun Jose	XXXXXXX77L	Ph.D	NIT TRICHY	INDUSTRIAL ENGINEERING AND MANAGEMENT	27/11/2012	13	Assistant Professor	Associate Professor	30/08/2023	Regular	Yes		Yes
2	Amal R	XXXXXXX04D	M.Tech	MG UNIVERSITY	MACHINE DESIGN	08/01/2018	7.10	Assistant Professor	Assistant Professor		Regular	Yes		No
3	Rajeeve K Mohan	XXXXXXX89B	M.Tech	NIT TRICHY	WELDING ENGINEERING	21/07/2008	17.4	Lecturer	Associate Professor	01/08/2016	Regular	Yes		No
4	Dr. Rabi J	XXXXXXX50C	Ph.D	Anna University, Chennai	Machine Design	02/08/2021	4.4	Associate Professor	Professor	01/07/2025	Regular	Yes		No
5	Dr. Manuel George	XXXXXXX55N	Ph.D	VIT Vellore	Polymer Composites	24/08/2021	4.3	Associate Professor	Associate Professor	24/08/2021	Regular	Yes		No
6	Rahul Krishnan	XXXXXXX21F	M.Tech	MG University	Computer Integrated Manufacturing	04/09/2018	7.3	Assistant Professor	Assistant Professor		Regular	Yes		No
7	Santhu Varghese Thomas	XXXXXXX64Q	M.Tech	MG University	Industrial Engg and Management	24/08/2020	5.3	Assistant Professor	Assistant Professor		Regular	Yes		No
8	Harikrishnan A R	XXXXXXX03B	M.E.	Anna University	Engineering Design	15/11/2021	4	Assistant Professor	Assistant Professor		Regular	Yes		No
9	Navish Kumar	XXXXXXX18A	M.Tech	VTU Bangalore	Thermal Power Engineering	02/12/2021	4	Assistant Professor	Assistant Professor		Regular	Yes		No
10	Premjith S	XXXXXXX30K	M.Tech	MG University	Machine Design	30/12/2021	3.11	Assistant Professor	Assistant Professor		Regular	Yes		No
11	Johan George Cherian	XXXXXXX02A	M.Tech	APJAKTU	Industrial Engineering and Management	17/08/2022	3.3	Assistant Professor	Assistant Professor		Regular	Yes		No
12	Nijo Jose	XXXXXXX97H	M.Tech	AMRITA	Thermal and Fluid Engineering	12/02/2024	1.9	Assistant Professor	Assistant Professor		Regular	Yes		No
13	Abin Paul	XXXXXXX83D	M.Tech	MG University	Machine Design	15/04/2024	1.7	Assistant Professor	Assistant Professor		Regular	Yes		No

14	Muhammed Nihal P A	XXXXXXX83E	M.Tech	CUSAT	Thermal Engineering	21/08/2024	1.3	Assistant Professor	Assistant Professor		Regular	Yes		No
15	Albin Thomas	XXXXXXX15Q	M.Tech	Christ University,Bangalore	Machine Design	26/06/2025	0.5	Assistant Professor	Assistant Professor		Regular	Yes		No
16	Ajish Soman	XXXXXXX27Q	M.E.	Anna University, Chennai	Thermal Engineering	27/06/2025	0.5	Assistant Professor	Assistant Professor		Regular	Yes		No
17	Amal Shaji	XXXXXXX11J	M.Tech	APJAKTU	Industrial Engineering and Management	04/08/2025	0.4	Assistant Professor	Assistant Professor		Regular	Yes		No
18	Ajithkumar K T	XXXXXXX82N	M.Tech	NIT Calicut	Energy Management	17/08/2020	4.11	Assistant Professor	Assistant Professor		Regular	No	30/07/2025	No
19	Dr.Manikandan H	XXXXXXX02Q	Ph.D	BITS Pilani	Manufacturing technology	17/08/2022	2.8	Professor	Professor	17/08/2022	Regular	No	13/05/2025	No
20	Jishnu M	XXXXXXX71E	M.Tech	Calicut University	IC Engines and Turbo Machinery	17/06/2013	11.4	Assistant Professor	Assistant Professor		Regular	No	06/11/2024	No
21	Akhil Ramesh	XXXXXXX77A	M.E.	Anna University, Chennai	Manufacturing Engineering	24/01/2024	1.3	Assistant Professor	Assistant Professor		Regular	No	03/05/2025	No
22	Dona Thomas	XXXXXXX49D	M.Tech	MG University	Advanced manufacturing & Production management	17/08/2022	1.9	Assistant Professor	Assistant Professor		Regular	No	11/06/2024	No
23	Dr. Bibin K S	XXXXXXX48L	Ph.D	Amrita Vishwa Vidyapeetham	Thermal Engineering	04/07/2022	1.10	Associate Professor	Associate Professor	04/07/2022	Regular	No	13/05/2024	No
24	Tony Mathew	XXXXXXX73D	M.Tech	MG University	Industrial Engineering and Management	22/11/2021	2.5	Assistant Professor	Assistant Professor		Regular	No	15/05/2024	No
25	Albert Mathew	XXXXXXX62B	M.E.	Anna University, Chennai	Engineering Design	02/01/2012	12.2	Assistant Professor	Assistant Professor		Regular	No	16/03/2024	No
26	Dr. Pratheesh K	XXXXXXX46K	Ph.D	NIT calicut	Production Engineering	12/08/2020	3.5	Professor	Professor	12/08/2020	Regular	No	30/01/2024	No
27	Benphil C Mathew	XXXXXXX21D	M.Tech	Calicut University	IC Engine and Turbo Machinery	17/09/2014	9.4	Assistant Professor	Assistant Professor		Regular	No	20/01/2024	No

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

C2. Student-Faculty Ratio (SFR)

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

No. of UG Programs in the Department1 No. of PG Programs in the Department1
Table No.C2.1: Student-faculty ratio.

Description	**CAY(2025-26)**	**CAYm1 (2024-25)**	**CAYm2 (2023-24)**
UG1.B	65	96	99
UG1.C	96	99	93
UG1.D	99	93	96
UG1: Mechanical Engineering	**260**	**288**	**288**
PG1.A	18	18	18
PG1.B	18	18	18
PG1: Industrial Engineering and Management	**36**	**36**	**36**
DS=Total no. of students in all UG and PG programs in the Department	296	324	324
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=** 296	**S2=** 324	**S3=** 324
DF=Total no. of faculty members in the Department	17	17	17
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=** 17	**F2=** 17	**F3=** 17
FF=The faculty members in F who have a 100% teaching load in the first-year courses	2	2	2
Student Faculty Ratio (SFR)=S/(F-FF)	**SFR1= 19.73**	**SFR2= 21.60**	**SFR3= 21.60**
Average SFR for 3 years	**SFR= 20.98**		

C3. Faculty Qualification

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

Table No.C3.1: Faculty qualification.

Year	X	Y	RF	FQ = 2.5 x [(10X + 4Y) / RF)]
2025-26(CAY)	3	14	14.00	15.36
2024-25(CAYm1)	4	13	16.00	14.38
2023-24(CAYm2)	5	12	16.00	15.31

C4. Faculty Cadre Proportion

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

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

Year	Professors		Associate Professors		Assistant Professors	
	Required RF1	Available AF1	Required RF2	Available AF1	Required RF3	Available AF3
2025-26	1.00	1.00	3.00	2.00	9.00	14.00
2024-25	1.00	1.00	3.00	3.00	10.00	13.00
2023-24	1.00	1.00	3.00	4.00	10.00	12.00
Average	RF1=1.00	AF1=1.00	RF2=3.00	AF2=3.00	RF2=9.67	AF2=13.00

C5. Visiting/Adjunct Faculty/Professor of Practice

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

(CAYm1)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Dr.Bharat Vinjamuri	Technical Head	EMI product Bangalore	Computer Aided Drawing;	30.00
2	Dr.Bharat Vinjamuri	Technical Head	EMI product Bangalore	Computer aided Design and Analysis Lab	36.00

(CAYm2)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Dr.Bharat Vinjamuri	Technical Head	EMI product Bangalore	Computer Aided Drawing	33.00
2	Dr.Bharat Vinjamuri	Technical Head	EMI product Bangalore	Computer aided Design and Analysis Lab	30.00

(CAYm3)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Mr.Arjun C K	Assistant Professor	Visiting Faculty	Thermal engineering Lab-II	27.00
2	Mr.Arjun C K	Assistant Professor	Visiting Faculty	Fluid Mechanics and Hydraulics Lab	30.00

C6. Academic Research

Table No. C6.1: Faculty publication details.

S.No.	Item	2024-25 (CAYm1)	2023-24 (CAYm2)	2022-23 (CAYm3)
1	No. of peer reviewed journal papers published	10	22	12
2	No. of peer reviewed conference papers published	0	1	1
3	No. of books/book chapters published	0	0	29

C7. Sponsored Research Project

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

(CAYm1)

(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. Manuel George		Mechanical Engineering	Synthesis of graphite nanoplatelets decorate with spinel ferrite materials by using various surfactants on CF/GF composites for EMI shielding	DST- Serb (ANRF)	3 Years	5.36
Dr.Pratheesh K	Mr.Santhu Varghese	Mechanical Engineering	Two wheeler puncture assisting Trolley	APJAKTU CERD	1 Year	0.27
						Amount received (Rs.):5.63

(CAYm3)

Total Amount (Lacs) Received for the Past 3 Years: 5.63

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. Manikandan H		Mechanical Engineering	Component Printing in 3D printer	S.Sreeraj	15 days	0.05
Mr.Navish Kumar		Mechanical Engineering	Bracket design and Development	Saju Thomas	1 Month	0.10
Dr.Manuel George		Mechanical Engineering	Component Printing in 3D printer	Kiran Mathew	1 Month	0.07
Dr.Manuel George		Mechanical Engineering	Component Printing in 3D printer	Jayaraj N	1 Month	0.07
Mr.Navish Kumar		Mechanical Engineering	Component Printing in 3D printer	S.Sreeraj	15 days	0.05
Mr, Premjith S		Mechanical Engineering	Component Printing in 3D printer	S.Sreeraj	15 days	0.05
Dr.Manuel George		Mechanical Engineering	Component	Thomas Mathew	3 Months	0.14
Dr.Manikandan H		Mechanical Engineering	CNC Work	SR Engineering Works Industrial Estate Ettumanoor	1 year	0.50
Dr.Manikandan H		Mechanical Engineering	CNC Work	Chass Engineering Industrial Estate Ettumanoor	1 year	0.40
						Amount received (Rs.):1.43

(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. Manikandan H		Mechanical Engineering	CNC Work	SR Engineering Works Industrial Estate Ettumanoor	1 year	0.49
Dr. Manikandan H		Mechanical Engineering	CNC Work	Chass Engineering Industrial Estate Ettumanoor	1 year	0.58
						Amount received (Rs.):1.07

(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. Manikandan H		Mechanical Engineering	CNC Work	SR Engineering Works Industrial Estate Ettumanoor	1 year	0.56
						Amount received (Rs.):0.56

Total amount (Lacs) received for the past 3 years: 3.06

Note*:

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

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

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

(CAYm1)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
Mr.Santhu Varghese Thomas	Patent	1 Year	0.10	0.10	Patent Published
Dr. Manikandan H	Patent	1 Year	0.10	0.10	Patent Published
Dr.Manuel George	Patent	1 Year	0.10	0.10	Patent Published
Mr.Navish Kumar	Patent	1 Year	0.10	0.10	Patent Published
Dr.Bibin K S	Publication	1 Year	0.10	0.10	Publication SCI
Mr.Abin Paul	Publication	1 Year	0.05	0.05	Publication SCI
Dr Manuel George	Publication	1 Year	0.05	0.05	Publication SCI
Dr Manuel George	Publication	1 Year	0.10	0.10	Publication SCI
Dr.Manuel George	Publication	1 Year	0.10	0.10	Publication SCI
Mr.Abin Paul	Publication	1 Year	0.10	0.10	Publication SCI
Mr.Johan George Cherian	Publication	1 Year	0.01	0.01	Publication-Others
Mr.Premjith S	Publication	1 Year	0.01	0.01	Publication-Others
Mr. Abin Paul	Publication	1 Year	0.01	0.01	Publication-Others
Mr.Johan George Cherian	Publication	1 Year	0.03	0.03	Publication-Others
Mr.Johan George Cherian	Publication	1 Year	0.03	0.03	Publication-Others
Mr.Johan George Cherian	Publication	1 Year	0.03	0.03	Publication-Others
			Amount received (Rs.): 1.02		

(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.Rabi J	Patent	1 Year	0.10	0.10	Patent Published
Dr.Rabi J	Patent	1 Year	0.10	0.10	Patent Published
Mr Rahul Krishnan	Patent	1 Year	0.10	0.10	Patent Published
Mr.Navish Kumar	Patent	1 Year	0.10	0.10	Patent Published
Mr.Rajeeve K Mohan	Patent	1 Year	0.10	0.10	Patent Published
Mr. Santhu Varghese Thomas	Patent	1 Year	0.10	0.10	Patent Published
Dr.Rabi J	Patent	1 Year	0.10	0.10	Patent Published
Dr Manuel George	Publication	1 Year	0.10	0.10	Publication-SCI
Dr Manuel George	Publication	1 Year	0.10	0.10	Publication-SCI
Dr K. Pratheesh	Publication	1 Year	0.10	0.10	Publication-SCI
Dr.Rabi. J	Publication	1 Year	0.08	0.08	Publication-Scopus
Dr.Bibin K S	Publication	1 Year	0.10	0.10	Publication-SCI
Dr Pratheesh K	Publication	1 Year	0.10	0.10	Publication-SCI
Dr.Manuel George	Publication	1 Year	0.10	0.10	Publication-Wos
Dr.Rabi. J	Publication	1 Year	0.08	0.08	Publication-Scopus
Dr.Manikandan H	Publication	1 Year	0.03	0.03	Publication-Others
Mr.Tony Mathew	Publication	1 Year	0.03	0.03	Publication-Others
Dr.Manuel George	Publication	1 Year	0.10	0.10	Publication-SCI
Mr.Harikrishnan A R	Publication	1 Year	0.03	0.03	Publication-Others
Dr.Manuel George	Publication	1 Year	0.03	0.03	Publication-Others
Dr.Manikandan H	Publication	1 Year	0.03	0.03	Publication-Others
Mr.Albert Mathew	Publication	1 Year	0.03	0.03	Publication-Others
Mr.Tony Mathew	Publication	1 Year	0.03	0.03	Publication-Others
Mr. Tony Mathew	Publication	1 Year	0.03	0.03	Publication-Others
Dr.Rabi. J	Publication	1 Year	0.03	0.03	Publication-Others
Mr.Navish Kumar	Publication	1 Year	0.03	0.03	Publication-Others
Mr.Amal R	Publication	1 Year	0.03	0.03	Publication-Others
Mr.Navish Kumar	Publication	1 Year	0.03	0.03	Publication-Others
Dr.Manikandan H	Publication	1 Year	0.03	0.03	Publication-Others
Dr.Manikandan H,	Publication	1 Year	0.03	0.03	Publication-Others
			Amount received (Rs.): 1.98		

(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.Manikandan H	Publication	1 year	0.08	0.08	Publication-Scopus
Dr.Manuel George	Publication	1 year	0.10	0.10	Publication-SCI
Dr.Manuel George	Publication	1 year	0.04	0.04	Publication-Scopus
Dr.K. Pratheesh	Publication	1 year	0.04	0.04	Publication-Scopus
Dr.K Pratheesh	Publication	1 year	0.05	0.05	Publication-SCI
Mr. Navish Kumar	Publication	1 year	0.05	0.05	Publication-SCI
Mr.Benphil C Mathew	Publication	1 year	0.08	0.08	Publication-Scopus
Dr.Rabi j	Publication	1 year	0.08	0.08	Publication-Scopus
Dr.K Pratheesh	Publication	1 year	0.10	0.10	Publication-SCI
Dr.Manuel George	Publication	1 year	0.10	0.10	Publication-SCI
Dr.K Pratheesh	Publication	1 year	0.10	0.10	Publication-SCI
Dr.K Pratheesh	Publication	1 year	0.10	0.10	Publication-SCI
Dr.Arun Jose	Publication	1 year	0.10	0.10	Publication-SCI
Dr.Arun Jose	Publication	1 year	0.08	0.08	Publication-Scopus
Dr.Arun Jose	Publication	1 year	0.10	0.10	Publication-SCI
			Amount received (Rs.): 1.20		

Total amount (Lacs) received for the past 3 years : 4.20

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	Mechanical Workshop	30	Anvil Bench vice Work Bench Hand File Arc welding unit Gas welding Power Hack saw Drilling Machine Electric Blower Hand Blower	12	Mr. Suresh P O	Lan Instructor	ITI
2	Computer Aided Machine Drawing	30	Desktop Computer connected over LAN AutoCAD Desktop Computer connected over LAN Solid Edge	12	Mr. Sarath S	Lab Instructor	B.Tech
3	Thermal Engineering Lab I	30	Multi cylinder diesel engine test rig Four stroke single cylinder diesel engine Multi cylinder speed petrol engine test rig Cleveland Flash and fire point	15	Mr.Shajimon K V	Lab Instructor	Diploma
4	F M & HM Lab	30	Pelton turbine test rig Venturi meter Orifice meter Reciprocating Pump test rig Centrifugal Pump test rig Kaplan Turbine Francis Turbine Jet Pump Mete	33	Mr. Sachu Sasindran	Lab Instructor	Diploma
5	Machine Tool Lab I	30	Lathe Machine Shaping Machine Heavy duty Slotting Machine All Geared head horizontal milling machine Surface grinder Drilling Machine Grinding Machine	21	Mr.Raghavan M G	Lab Instructor	Diploma
6	Machine Tool Lab II	30	CNC lathe machine Grinding Machine Bevel protractor Vernier height gauge Vernier Calipers Slip Gauge Sine bar Profile Projector Load cell Strain	12	Mr. Baby M K	Lab Instructor	ITI
7	Thermal Engineering Lab II	30	Heat Exchanger Apparatus Emissivity apparatus Composite wall apparatus Natural convection apparatus Forced Convection Apparatus Lagged	12	Mr.Philip Mathew	Lab Instructor	ITI
8	Mechanical Engineering Lab	30	Whirling of shaft Apparatus Universal Governer CAM Analysis Apparatus Static and Dynamic Balancing Apparatus Spring Apparatus Gyroscope	12	Mr. Sachu Sasindran	Lab Instructor	Diploma
9	Computer Aided Design & Analysis Lab	30	Auto CAD Solid Works Ansys	12	Mr. Sarath S	Lab Instructor	B. Tech

D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures
1	Mechanical Workshop	1. Enter the lab with proper dress code. 2. Care should be taken for avoiding accidental contact with revolving cutters. 3. Do not handle chips with bare hands, use brush or hand gloves. 4. Pay attention while selecting tools or blades for the proposed use to avoid accidents. 5. Handle instrument/tools/equipment carefully. 6. Use coolants for heat dissipation. 7. Use goggles for sparks and spatters. 8. Strictly follow the safety precautions of individual items while operating. 9. Wearing bangles, wrist watches and long chains should be avoided. 10. Long hair should be tied tightly or use hair net.
2	Computer Aided Machine Drawing	1.Proper uniform and id card is mandatory 2. When you enter the lab make sure you sign the entry register 3. Before starting the work, ensure computer is in working condition. 4. Maintain strict discipline in the lab. 5. Arrange the chair in proper order and shutdown the system before leaving the lab. 6. Switch off all electrical equipment before leaving. 7. Inform faculty or lab staff in case of any doubt or fault. 8. Footwear is not allowed inside the lab. 9. Do not keep systems on when not in use. 10. Browsing is not allowed unless required as a part of the session. In that case presence of faculty or lab staff is mandatory.
3	Thermal Engineering Lab I	1. Students must be in proper uniform with shoes completely covering the foot. No Sandals are allowed. 2. Dress properly during all laboratory activities. Long hair, dangling jewellery and loose or baggy clothing are a hazard in the laboratory. Long hair must be tied back and dangling jewellery and loose or baggy clothing must be secured. 3. Never work in laboratory alone, always have another qualified person in the area. 4. Do not use any equipment unless you are trained and approved as a user by your instructor or staff. Seek help from authorized personnel of you are unsure of how to operate something. 5. Perform only those experiments authorized by the instructor. Never do anything in the laboratory that is not called for in the laboratory procedures or by your instructor. Carefully follow all instructions, both written and oral. 6. If any laboratory equipment is malfunctioning, making strange noises, spark, smoke, or smell, inform an instructor or staff immediately. 7. All accidents, no matter how minor, should be reported to the faculty/ staff member supervising the laboratory immediately. 8. When using compressed air never direct the air to any person. 9. Please report any unsafe behavior or condition to the instructor or staff .
4	F M & HM Lab	1. Students must be in proper uniform with shoes completely covering the foot. No Sandals are allowed. 2. Dress properly during all laboratory activities. Long hair, dangling jewellery and loose or baggy clothing are a hazard in the laboratory. Long hair must be tied back and dangling jewellery and loose or baggy clothing must be secured. 3. Never work in laboratory alone, always have another qualified person in the area. 4. Do not use any equipment unless you are trained and approved as a user by your instructor or staff. Seek help from authorized personnel of you are unsure of how to operate something. 5. Perform only those experiments authorized by the instructor. Never do anything in the laboratory that is not called for in the laboratory procedures or by your instructor. Carefully follow all instructions, both written and oral. 6. If any laboratory equipment is malfunctioning, making strange noises, spark, smoke, or smell, inform an instructor or staff immediately. 7. All accidents, no matter how minor, should be reported to the faculty/ staff member supervising the laboratory immediately. 8. Please report any unsafe behaviour or condition to the instructor or staff.
5	Machine Tool Lab I	1.Enter the lab with proper Uniform. 2. Wear leather shoes in the lab. 3. Insert shirt properly. 4. Wear goggles while working on a machine. 5. Attention should be paid for clamping the job, tool, tool holders or supporting items. 6. Do not operate any machine without proper guidance. 7. Do not remove/hold jobs or tools on a running machine. 8. Pay attention while selecting tools or blades for the proposed use to avoid accidents. 9. Do not handle chips with bare hands, use brush or hand gloves. 10. Do not remove chips from a running machine. 11. Deburr the finished jobs with file to avoid accident while handling. 12. Handle instrument/tools/ equipment carefully. 13. Do not shout or run inside the workshop. 14. Use proper coolants for machining jobs. 15. Strictly follow the safety precautions of individual items while operating. 16. Wearing bangles, wrist watches, rings and chains should be avoided. 17. Long hair should be tied tightly or use hair net. 18. Cut nails on hands properly. 19. Avoid dropping oil on shop floor. 20. Any electrical fault noticed should be reported to competent authority. 21. Clean and put off the machine after use. 22. Always keep machine shop neat and clean.
6	Machine Tool Lab II	1. Enter the lab with proper Uniform. 2. Wear leather shoes in the lab. 3. Insert shirt properly. 4. Wear goggles while working on a machine. 5. Attention should be paid for clamping the job, tool, tool holders or supporting items. 6. Do not operate any machine without proper guidance. 7. Do not remove/hold jobs or tools on a running machine. 8. Pay attention while selecting tools or blades for the proposed use to avoid accidents. 9. Do not handle chips with bare hands, use brush or hand gloves. 10. Do not remove chips from a running machine. 11. Deburr the finished jobs with file to avoid accident while handling. 12. Handle instrument/tools/ equipment carefully. 13. Do not shout or run inside the workshop. 14. Use proper coolants for machining jobs. 15. Strictly follow the safety precautions of individual items while operating. 16. Wearing bangles, wrist watches, rings and chains should be avoided. 17. Long hair should be tied tightly or use hair net. 18. Cut nails on hands properly. 19. Avoid dropping oil on shop floor. 20. Any electrical fault noticed should be reported to competent authority. 21. Clean and put off the machine after use. 22. Always keep machine shop neat and clean.
7	Thermal Engineering Lab II	1. Students must be in proper uniform with shoes completely covering the foot. No Sandals are allowed. 2. Dress properly during all laboratory activities. Long hair, dangling jewellery and loose or baggy clothing are a hazard in the laboratory. Long hair must be tied back and dangling jewellery and loose or baggy clothing must be secured. 3. Never work in laboratory alone, always have another qualified person in the area. 4. Do not use any equipment unless you are trained and approved as a user by your instructor or staff. Seek help from authorized personnel of you are unsure of how to operate something. 5. Perform only those experiments authorized by the instructor. Never do anything in the laboratory that is not called for in the laboratory procedures or by your instructor. Carefully follow all instructions, both written and oral. 6. If any laboratory equipment is malfunctioning, making strange noises, spark, smoke, or smell, inform an instructor or staff immediately. 7. All accidents, no matter how minor, should be reported to the faculty/ staff member supervising the laboratory immediately. 8. When using compressed air never direct the air to any person. 9. Please report any unsafe behavior or condition to the instructor or staff .

8	Mechanical Engineering Lab	1.Students must be in proper uniform with shoes completely covering the feet. 2. Dress properly during all laboratory activities. Long hair, dangling jewellery and loose or baggy clothing are a hazard in the laboratory. Long hair must be tied back and dangling jewellery and loose or baggy clothing must be secured. 3. Never work in laboratory alone, always have another qualified person in the area. 4. Do not use any equipment unless you are trained and approved as a user by your instructor or staff. Seek help from authorized personnel of you are unsure of how to operate something. 5. Perform only those experiments authorized by the instructor. Never do anything in the laboratory that is not called for in the laboratory procedures or by your instructor. Carefully follow all instructions, both written and oral. 6. If any laboratory equipment is malfunctioning, making strange noises, spark, smoke, or smell, inform the instructor or staff immediately. 7. Any accident, no matter how minor, should be reported to the faculty/staff member supervising the laboratory immediately. 8. When using compressed air never direct the air to any person. 9. Please report any unsafe behaviour or condition of the equipment to the instructor or staff. 10. Ensure that the heat input to the heat transfer apparatus is well below the allowable limit 11. Switch off all the knobs, power switch and the power supply to the equipment after completion of the experiment. 12.Students are expected to demonstrate mature judgement and common sense in their work and exhibit good conduction while working in the laboratory
9	Computer Aided Design & Analysis Lab	1.Proper uniform and id card is mandatory 2. When you enter the lab make sure you sign the entry register 3. Before starting the work, ensure computer is in working condition. 4. Maintain strict discipline in the lab. 5. Arrange the chair in proper order and shutdown the system before leaving the lab. 6. Switch off all electrical equipment before leaving. 7. Inform faculty or lab staff in case of any doubt or fault. 8. Footwear is not allowed inside the lab. 9. Do not keep systems on when not in use. 10. Browsing is not allowed unless required as a part of the session.

D3. Project Laboratory/Research Laboratory

PART E: First Year faculty and financial Resources

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

E1. First Year Student-Faculty Ratio (FYSFR)

Table No. E1.1: FYSFR details.

Year	Sanctioned intake of all UG programs (S4)	No. of required faculty (RF4= S4/20)	No. of faculty members in Basic Science Courses & Humanities and Social Sciences including Management courses (NS1)	No. of faculty members in Engineering Science Courses (NS2)	Percentage= No. of faculty members ((NS1*0.8) +(NS2*0.2))/(No. of required faculty (RF4)); Percentage=((NS1*0.8) +(NS2*0.2))/RF
2023-24(CAYm2)	480	24	19	12	73
2024-25(CAYm1)	600	30	16	14	52
2025-26(CAY)	600	30	20	13	62

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

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

Items	Budgeted in 2024-2025	Actual Expenses in 2024-2025 till	Budgeted in 2023-2024	Actual Expenses in 2023-2024 till	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till	Budgeted in 2021-2022	Actual Expenses in 2021-2022 till
Infrastructure Built-Up	17000000	732048	15500000	14744069	18500000	17458727	34000000	31408332
Library	1100000	212421	1050000	982798	850000	780065	2100000	1957421
Laboratory equipment	5200000	4425072	900000	838782	3400000	3220608	2900000	2674777
Teaching and non-teaching staff salary	101000000	73320637	100000000	95711864	97000000	91340001	87500000	83386655
Outreach Programs	200000	73224	195000	182746	300000	281968	165000	151926
R&D	2000000	606991	1900000	1797495	890000	821533	1500000	1395021
Training, Placement and Industry linkage	1400000	405140	1300000	1209500	2200000	2059449	2250000	2103067
SDGs	1300000	1104532	750000	701039	310000	293284	175000	162463
Entrepreneurship	20000	2000	1000	0	0	0	0	0
Others, specify	100780000	33548614	104404000	98067052	101500000	93326345	158490000	150212125
Total	**230000000**	**114430679**	**226000000**	**214235345**	**224950000**	**209581980**	**289080000**	**273451787**

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

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

Items	Budgeted in 2024-2025	Actual Expenses in 2024-2025 till	Budgeted in 2023-2024	Actual Expenses in 2023-2024 till	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till	Budgeted in 2021-2022	Actual Expenses in 2021-2022 till
Laboratory equipment	50000	349640	50000	150762	183000	70000	300000	410198
Software	25000	29000	20000	26383	0	0	0	61423
SDGs	188000	178000	125000	150000	75000	56000	50000	35000
Support for faculty development	300000	56000	300000	102000	300000	198400	300000	120000
R & D	100000	32840	100000	30000	100000	20000	100000	81521
Industrial Training, Industry expert, Internship	300000	52600	375000	331600	750000	696545	1000000	1021074

Miscellaneous Expenses*	30000	20860	30000	25220	30000	29750	25000	19490
Total	**993000**	**718940**	**1000000**	**815965**	**1438000**	**1070695**	**1775000**	**1748706**