

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 : 10758	Date of Submission : 09-06-2025

PART A- Profile of the Institute

A1.Name of the Institute : St Joseph Engineering College	
Year of Establishment : 2002	Location of the Institute: Mangaluru
A2. Institute Address : St Joseph Engineering College, Vamanjoor Post, Mangaluru 575028,Karnataka State, India.	
City: Dakshina Kannada	State: Karnataka
Pin Code: 575028	Website: www.sjec.ac.in
Email: dean.qa@sjec.ac.in	Phone No(with STD Code):824-2263732
A3. Name and Address of the Affiliating University (if any):	
Name of the University :	City: Belgaum
State : Karnataka	Pin Code: 590018
A4. Type of the Institution : Autonomous CAY(2021-22)	
A5. Ownership Status : Self financing	

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

. No. of UG programs: 8

. No. of PG programs: 2

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	2008	--	Computer Application
2	Engineering & Technology	UG	Artificial Intelligence and Machine Learning	2020	--	Artificial Intelligence and Machine Learning
3	Engineering &	UG	Civil Engineering	2012	--	Civil Engineering

	Technology					
4	Engineering & Technology	UG	Computer Science and Business System	2021	--	Computer Science and Business System
5	Engineering & Technology	UG	Computer Science and Engineering	2002	--	Computer Science and Engineering
6	Engineering & Technology	UG	Computer Science and Engineering (Data Science)	2022	--	Computer Science and Engineering (Data Science)
7	Engineering & Technology	UG	Electrical and Electronics Engineering	2002	--	Electrical and Electronics Engineering
8	Engineering & Technology	UG	Electronics & Communication Engineering	2002	--	Electronics and Communication Engineering
9	Engineering & Technology	UG	Mechanical Engineering	2002	--	Mechanical Engineering
10	Management	PG	Master of Business Administration	2007	--	Management

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

Name of the Department	Having Allied Departments	Name of the Program	Program Level
Mechanical Engineering	No	Mechanical Engineering	UG
Electronics and Communication Engineering	No	Electronics & Communication Engineering	UG
Electrical and Electronics Engineering	No	Electrical and Electronics Engineering	UG

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 of intake (if any)	Year of Increase/ Decrease of intake	Current Intake	Year o AICTE Approval	AICTE/ Competent Authority Approval Details	Accreditation status	From	To	No. of Time Program Accredited
1	Mechanical Engineering	UG	2002 / --	60	Yes	2021	120	2021	F.No. South-West/1-44643507841/2025/EOA Dated 05 Apr 2025	Granted accreditation for 3 years for the period (specify period)	2022	2025	4

Sanctioned Intake for Last Five Years for the Mechanical Engineering	
Academic Year	Sanctioned Intake
2025-26	120
2024-25	120
2023-24	120
2022-23	120
2021-22	120
2020-21	180

B2. Detail of Head of the Department for the program under consideration:

A. Name of the HoD :	Ravikantha Prabhu
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)
N=Sanctioned intake of the program (as per AICTE/Competent authority)	120	120	120	120	120	180
N1=Total no. of students admitted in the 1st year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program	111	107	62	33	62	53
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	23	38	28	32	26
N3=Separate division if any	0	0	0	0	0	0
N4=Total no. of students admitted in the 1st year via all supernumerary quotas	6	6	6	6	6	8
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	117	136	106	67	100	87

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

B4. Enrolment Ratio in the First Year

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

Year of entry	N (From Table 4.1)	N1 (From Table 4.1)	N4 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2024-25 (CAY)	120	111	6	97.50
2023-24 (CAYm1)	120	107	6	94.17
2022-23 (CAYm2)	120	62	6	56.67

Average [(ER1 + ER2 + ER3) / 3] = 82.78, Points: 17.00

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).	100	87	116
B=No. of students who graduated from the program in the stipulated course duration	67	85	95
Success Rate (SR)= (B/A) * 100	67.00	97.70	81.89

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 82.19

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)	6.37	6.78	7.33
Y=Total no. of successful students	113	62.00	39.00
Z=Total no. of students appeared in the examination	113	62.00	39.00
API [X*(Y/Z)]	6.37	6.78	8.66

Average API [(AP1 + AP2 + AP3)/3]: 7.27

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)	5.65	6.71	7.27
Y=Total no. of successful students	88	67.00	99.00

Z=Total no. of students appeared in the examination	88	67.00	100.00
API [$X * (Y/Z)$]	5.65	6.71	7.20

Average API [$(AP1 + AP2 + AP3)/3$]: 6.52

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)	7.02	7.02	6.93
Y=Total no. of successful students	67	98.00	85.00
Z=Total no. of students appeared in the examination	67	99.00	85.00
API [$X*(Y/Z)$]:	7.02	6.95	6.93

Average API [$(AP1 + AP2 + AP3)/3$]: 6.96

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	100	87	116
X=No. of students placed	59.00	50.00	75.00
Y=No. of students admitted to higher studies	2.00	5.00	4.00
Z= No. of students taking up entrepreneurship	0.00	0.00	0.00
Placement Index(P) = $((X + Y + Z)/FS) * 100$:	61	63.22	68.1

Average Placement Index = $(P_1 + P_2 + P_3)/3$: 64.10, Placement Index Points: 19.23

PART C: Faculty Details in 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

Sl .No.	Name of the Faculty	PAN No.	Highest degree	University	Area of Specialization	Date of Joining in this Institution	Designation at Time Joining in this Institution	Present Designation	The date on which Designated as Professor/ Associate Professor if any	Nature of Association (Regular/Contract/Ad hoc)	If contractual mention Full time or Part time	Currently Associated (Y/N)	Date of Leaving if any (In case Currently Associated is “No”)	Experience in years in current institute
1	Dr Raju K	AHEPR7309G	PhD	IIT BHU	Manufacturing Engineering	25/08/2004		Professor	01/09/2010	Regular	NA	Yes	-	22
2	Dr Sudheer M	BJHPS2856R	PhD	VTU	Materials Engineering	18/08/2005	Assistant Professor	Professor & Dean AA	20/07/2015	Regular	NA	Yes	-	21
3	Dr Purushothama Chippar	AXOPP0622Q	PhD	Inha University	Thermal Engineering	03/08/2015	Associate Professor	Professor & Vice Principal	01/01/2019	Regular	NA	No	16/01/2026	11
4	Dr Shreeranga Bhat	AOHPB0975N	PhD	VTU	Mechanical Engineering	11/09/2006	Assistant Professor	Professor & Dean Research	01/01/2019	Regular	NA	Yes	-	20
5	Dr James Valder	AGYPJ9120A	PhD	NITK	Materials Engineering	20/08/2014	Associate Professor	Associate Professor	20/08/2014	Regular	NA	No	14/05/2024	10
6	Dr Binu K G	ALYPB3876C	PhD	Mahe university	Design Engineering	29/08/2005	Assistant Professor	Professor	01/04/2014	Regular	NA	Yes	-	21
7	Dr Sharun Mendonca	BGYPM7677Q	PhD	VTU	Thermal Engineering	15/07/2013	Assistant Professor	Associate Professor	01-10-2022	Regular	NA	Yes	-	13
8	Dr Sushanth H G	ANMPG6305P	PhD	VTU	Thermal Engineering	18/01/2013	Assistant Professor	Associate Professor	01-10-2022	Regular	NA	Yes	-	14
9	Dr Ravikantha Prabhu	AYXPP6822E	PhD	VTU	Materials Engineering	19/08/2009	Assistant Professor	Associate Professor & HOD	01-10-2022	Regular	NA	Yes	-	15
10	Dr Rolvin Sunil Dsilva	AKNPD2962K	PhD	VTU	Thermal Engineering	16/08/2005	Assistant Professor	Associate Professor	01-10-2022	Regular	NA	Yes	-	21

11	Dr Pavana Kumara B.	AYDPB9215B	PhD	VTU	Manufacturing Engineering	01/08/2013	Assistant Professor	Associate Professor	01-10-2022	Regular	NA	Yes	-	12
12	Mr Sampath Kumar	BIDPS7121N	M.Tech	VTU	Thermal Engineering	14/08/2006	Assistant Professor	Assistant Professor	-	Regular	NA	No	14/05/2024	18
13	Mr Prashanth Kumar	AYOPK0843M	M.Tech	VTU	Thermal Engineering	01/09/2006	Assistant Professor	Assistant Professor	-	Regular	NA	Yes	-	21
14	Mr Prathviraj H	AUDPP5114B	M.Tech	VTU	Thermal Engineering	21/08/2006	Assistant Professor	Assistant Professor	-	Regular	NA	Yes	-	20
15	Mr Rudolf Charles DSouza	ANCPD7801M	M.Sc. (Engineering)	VTU	Manufacturing Engineering	01/02/2007	Assistant Professor	Assistant Professor	-	Regular	NA	Yes	-	20
16	Dr Vijay V S	AGXPV6801F	Ph.D	VTU	Thermal Engineering	15/07/2015	Assistant Professor - II	Assistant Professor	-	Regular	NA	Yes	-	20
17	Mr Noel Deepak Shiri	CXNPS5626L	M.Tech	VTU	Computational Analysis in Mechanical Sciences	16/07/2009	Assistant Professor	Assistant Professor	-	Regular	NA	Yes	-	17
18	Dr Swaraj D Lewis	AFTPL2036B	Ph.D	VTU	Manufacturing Engineering	16/01/2014	Assistant Professor	Assistant Professor	-	Regular	NA	No	13/01/2026	12
19	Mr Vinoothan Kaliveer	CEWPK4229R	M.Tech	VTU	Computational Analysis in Mechanical Sciences	10/08/2011	Assistant Professor	Assistant Professor	-	Regular	NA	Yes	-	15
20	Mr Yathish Kumar	ARQPK9815N	M.Tech	VTU	Computational Analysis in Mechanical Sciences	18/09/2014	Assistant Professor	Assistant Professor	-	Regular	NA	Yes	-	11
21	Dr Ashwin Shetty	CWIPS8977G	Ph.D	VTU	Computational Analysis in Mechanical Sciences	10/08/2011	Assistant Professor	Assistant Professor	-	Regular	NA	Yes	-	15
22	Mr Joel Antony Dmello	BDJPD3817P	M.Tech	VTU	Machine Design	11/07/2016	Assistant Professor	Assistant Professor	-	Regular	NA	Yes	-	10
23	Dr Poornesh M	CHUPM4640K	PhD	VTU	Materials Engineering		Assistant Professor	Assistant Professor	-	Regular	NA	Yes	-	10
24	Ms Ramya M	BGNPM3624A	M.Tech	VTU	Thermal Engineering		Assistant Professor	Assistant Professor	-	Regular	NA	Yes	-	12
25	Mr Rajesh Belchada	BFGPB7267G	M.Tech	VTU	Materials Engineering	13/12/2021	Assistant Professor	Assistant Professor	-	Regular	NA	Yes	-	10
26	Mr Abhijith S	BBHPA7265C	M.Tech	VTU	Machine Design	01/07/2022	Assistant Professor	Assistant Professor	-	Regular	NA	No	02/07/2025	4

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 Department 1

No. of PG Programs in the Department 0

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

Description	CAY(2025-26)	CAYm1 (2024-25)	CAYm2 (2023-24)
UG1.B	132	132	132
UG1.C	132	132	132
UG1.D	132	132	198
UG1: Mechanical Engineering	396	396	462
DS=Total no. of students in all UG and PG programs in the Department	396	396	462
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= 396	S2= 396	S3= 462
DF=Total no. of faculty members in the Department	21	24	26
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=21	F2= 24	F3= 26
FF=The faculty members in F who have a 100% teaching load in the first-year courses	5	5	5
Student Faculty Ratio (SFR)=S/(F-FF)	SFR1= 24.75	SFR2= 20.84	SFR3= 22.00
Average SFR for 3 years	SFR= 22.53		

C3. Faculty Qualification

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

Table No.C3.1: Faculty qualification.

Year	X	Y	RF	FQ = $2.5 \times [(10X + 4Y) / RF]$
2025-26(CAY)	12	9	19.00	20.52
2024-25(CAYm1)	12	12	19.00	22.11
2023-24(CAYm2)	13	13	23.00	19.78

Average Assessment: 20.80

C4. Faculty Cadre Proportion

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

Year	Professors		Associate Professors		Assistant Professors	
	Required (RF1)	Available (AF1)	Required (RF2)	Available (AF2)	Required (RF3)	Available (AF3)
CAY (2025-26)	02	04	04	05	12	12
CAYm1 (2024-25)	02	05	04	05	13	14

CAYm2 (2023-24)	02	05	05	06	15	15
Average Number	02	4.67	4.33	5.33	13.33	13.67

Cadre Ratio Marks: $\left(\frac{AF1}{RF1} + \frac{AF2}{RF2}\right) * 0.6 + \frac{AF3}{RF3} * 0.4) * 12.5 = ((4.67/2 + 5.33/4.33) * 0.6 + 13.67/13.33 * 0.4) * 12.5 = 25.00$

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.

Year	Number of faculty
(CAYm1)	-
(CAYm2)	-
(CAYm3)	-

C6. Academic Research

Table No. C6.1: Faculty publication details.

Sl. No	Item	2025-26 (CAY) Till date	2024-25 (CAYm1)	2023-24 (CAYm1)	2022-23 (CAYm3)
1	No. of peer reviewed journal papers published	29	29	31	11
2	No. of peer reviewed conference papers published	2	2	2	9
3	No. of books/book chapters published	1	0	0	0

C7. Sponsored Research Project

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

Sl. No.	PI name	Co-PI names if any	Name of the Department where project is	Project title*	Name of the Funding	Duration of the project	Amount (Lacs)
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			sanctioned		agency		
CAYm1							
1	Dr. Swaraj D Lewis	-	Mechanical Engineering	Experimental and Numerical Analysis of Lithium Nitrate Trihydrate Phase Change Material Based Thermal Storage Using Fins.	KSCST	One year	0.055
2	Dr Vijay V S	-	Mechanical Engineering	Design of Hot and Cold Water Dispenser Unit by Utilizing Waste Heat Recovery in Vapour Compression Refrigeration System.	KSCST	One year	0.06
Amount received (Rs.)							11,500
CAYm1							
1	Dr Anjali Ganesh	Dr Shreeranga Bhat Dr. Binu K G	Mechanical Engineering	Upskilling and Reskilling of Artisans in Dakshina Kannada, Udupi and Uttara Kannada Districts with respect to Skill India Mission of Pradhan Mantri Kaushal Vikas Yojana 4.0	Indian Council of Social Science Research	One year	12
2	Dr Purushothama Chippar	-	Mechanical Engineering	Drive Modes Based Tire Inflation Control System	KSCST	One year	0.095
Amount received (Rs.)							12,09,500
CAYm3							

1	Mr Vijay V S	-	Mechanical Engineering	Study on Converting Areca Husk Into Biomass Fuel	KSCST	one year	0.07
2	Mr Ashwin Shetty	Mr Joel A Dmello	Mechanical Engineering	Design and Fabrication of Paddy Dust Cleaning Machine	KSCST	one year	0.09
Amount received (Rs.)							16,000
Total Amount (Lacs) Received for the Past 3 Years							12,36,000

C8. Consultancy Work

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

Year	Number of faculty
(CAYm1)	-
(CAYm2)	-
(CAYm3)	-

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

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

S.N.	Faculty name	Project title/ Support for Activity	Duration	Amount (Lacs)	Amount Utilized (Lacs)	Outcomes of the project
CAYm1						
1	Mr Noel Deepak Shiri Mr Joel Dmello Dr ESTR Chandrasekhar	Development of a Batch Carbonation Chamber Reactor for CO ₂ Sequestration to	One year	2,80,000	-	The reactor converts CO ₂ into stable carbonates for sustainable green

		Revolutionize Green Concrete and Promotes Sustainable Industrial and Agricultural Residue Utilization				concrete, Publish paper (Under progress)
Amount received (Rs.) 2,80,000.00						
CAY m2						
1	Dr Binu K G, Mr Yathish Kumar K	New workstation	One year	2,61,841.98	2,61,841.98	Publish Paper (Under progress)
Amount received (Rs.) 2,61,841.98						
CAYm3						
1	Dr Raju K	Investigation on evolution of Hydrogen in alkaline solution from electro deposited nickel Molybdenum power coatings.	One year	1,09,000=00	1,09,000=00	Published Paper
2	Dr Shreeranga Bhat	Minitab predictive analytics software licences	One Year	1,20,000=00	1,20,000=00	Published Paper
Amount received (Rs.) 2,29,000.00						
Total amount (Lacs) received for the past 3 years					7,70,841.98	

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.

Sl No.	Name of the Laboratory	No. of students per setup (Batch size)	Name of the major Equipment	Weekly utilization status (all the courses for which the lab is utilized)	Technical Manpower support		
					Name of the Technical staff	Designation	Qualification
1	Machine Shop	25	1. Drilling Machine 2. Hydraulic power hacksaw machine 3. Electric drilling machine 4. Bench grinder 5. Lathe 6. Pillar drilling machine 7. Band saw machine 8. Shaping machine 9. Universal Milling Machine 10. Pedestal grinder 11. Cylindrical grinding machine 12. Horizontal surface grinder 13. Slotting machine 14. All geared head Lathe	4x2 hrs 8 Hrs / week	Mr. James Manoj Mascarenhas Mr. Gunakara Mr. Bhaskara	Foreman Lab Instructor Trainee technician	Diploma-AE B.E- ME, CII Diploma-ME PUC, Diesel Mechanic Service

			15. Planning machine				
2	EME Lab/ Workshop practice (Fitting & Welding)	30	<ol style="list-style-type: none"> 1. Arc welding machine 2. Band Saw 3. Bench vise 	<p>4x2 hrs 8 Hrs / week</p>	<p>Mr Vatan Kumar</p> <p>Mr. Gunakara</p>	<p>Lab Assistant</p> <p>Lab Instructor</p>	<p>Diploma -ME</p> <p>Craftmanship</p> <p>Diploma-ME</p>
3	Foundry & Forging Lab	25	<ol style="list-style-type: none"> 1. Smithy hearth 2. Blower (3 HP. motor) 3. Sand testing equipment's <ul style="list-style-type: none"> ● Sieve shaker ● Permeability ● Universal strength Machine (Shear, Compression and Tensile) 4. Power hammer 5. Foundry and forging tools 	<p>4x2hrs 8 Hrs / week</p>	<p>Mr Immanuel Jayakaramana</p> <p>MrVatan Kumar</p>	<p>Lab Assistant</p> <p>Lab Assistant</p>	<p>Diploma -ME</p> <p>Craftmanship</p> <p>Diploma –ME</p>
4	Metallography & Material Testing Lab	25	<ol style="list-style-type: none"> 1. Universal Testing machine 2. Impact Testing machine 3. Rockwell Hardness tester 4. Vickers Hardness Tester 5. Brinell Hardness Tester 6. Metzer make Microscope 7. Heat treatment furnace 8. Wear & friction monitor 9. Shimadzu Electronic weighing machine 10. Polishing machine 11. Ultrasonic flaw detector 	<p>4x2 hrs 8 Hrs / week</p>	<p>MrGunakara</p>	<p>Lab Instructor</p>	<p>Diploma-ME</p>

			12. Magnetic crack detector 13. Torsion testing machine 14. Fatigue testing machine				
5	Mechanical Measurements & Metrology Lab	25	1. Toolmakers Microscopes & Accessories 2. Lathe Tool Dynamometer 3. Drill Tool dynamometer 4. Mechanical comparator 5. Profile projector & accessories 6. Dial cylinder bore gauge 7. Floating carriage Micrometer 8. Autocollimator 9. Dial Indicator 10. Surface roughness tester 11. Surface plate and Slip gauges	4x2hrs 8 Hrs / week	Ms. Jayashree Mr. Preethesh	Lab Instructor Lab Technician	Diploma-ME PUC, ITI(Turner)
6	Energy Conversion Engineering Lab	25	1. Cleveland Open cup Apparatus 2. Pensky Martin closed cup Apparatus 3. Redwood Viscometer 4. Saybolt Viscometer 5. Multi Cylinder 4 stroke Petrol Engine Test rig 6. 4 stroke single cylinder petrol engine test rig 7. 2 stroke single cylinder petrol engine test rig	4x2 hrs 8 Hrs / week	Mr. Rajesh	Lab Instructor	Diploma-ME

			8. 4 stroke single cylinder Diesel engine test rig 9. Variable compression ratio petrol engine test rig 10. Bomb Calorimeter 11. Boys Gas Calorimeter 12. Planimeter 13. Computerized Single cylinder, 4 stroke cycle I C Engine test rig 14. Exhaust Gas Analyser 15. Furnace 16. Torsion viscometer				
7	Heat and Mass Transfer Lab	25	1. Free convection apparatus 2. Forced Convection apparatus 3. Pin Fin Apparatus 4. Stephen-Boltzman Apparatus 5. Surface emissivity apparatus 6. Heat Exchanger apparatus 7. Refrigeration Test Rig 8. Air-conditioning Test Rig 9. Composite Rod-heat conduction apparatus 10. Thermal Conductivity of Metal Rod 11. Transient Heat Conduction 12. Filmwise& Dropwise condensation	4x2 hrs 8 Hrs / week	Mr. Rajesh	Lab Instructor	Diploma-ME

8	Design Lab	25	<ol style="list-style-type: none"> 1. Journal Bearing Test-rig 2. Vibration Equipment 3. Whirling of Shaft 4. Balancing of Rotating Masses 5. Governors 6. Gyroscope 7. Polariscope 8. Strain Rosettes 9. Curved Beam Apparatus (Students project) 	4x2 hrs 8 Hrs / week	MrGunakara	Lab Instructor	ITI, Diploma- ME
9	Fluid Mechanics & Machines Lab	25	<ol style="list-style-type: none"> 1. Pipe Friction Apparatus 2. Loss of Head on Pipe Fitting Apparatus 3. Impact of Jet on vanes 4. Orifices and Venturimeter and Rotameter 5. Notches Apparatus 6. Pelton Wheel Turbine Test rig 7. Francis Turbine 8. Kaplan Turbine 9. Single stage Centrifugal Pump Test rig 10. Reciprocating Pump Test rig 11. Two Stage Reciprocating Air Compressor Test- rig 12. Centrifugal Blower Test rig 	4x2 hrs 8 Hrs / week	Mr. Preethesh Ms Jayashree	Lab Technician Lab Instructor	PUC, ITI(Turner) Diploma -ME
10	Computer Aided	70	Intel Core i5 11400F processor, Gigabyte H510M-H 6	Odd: 7x2 hrs 14 Hrs / week	Mr Christopher Cutinha	Lab Instructor	Diploma-ME

	Engineering Drawing Lab		<p>Motherboard, Crucial 16GB DDR4 3200Mhz RAM, Crucial 250GB SSD P2 Nvme M.2, WD Blue 1TB SATA HDD, 4GB Graphics card colorful GT730, AOC 19.5” monitor, Logitech K120 keyboard, Logitech M90 mouse.</p> <p>Intel Core i5 12400 2500Mhz processor, Acer H610H7-M2 Motherboard, 16GB DDR4, 500GB SSD, 4GB Graphics card colorful GT730, Acer 19.5” monitor, Acer keyboard and mouse.</p> <p>Windows 11 Professional 64 bit Windows Server 2012 R2 SNGL OLP NL Academic, Solid Works 2021, LCD Projector, Canon LBP2900B Laser Printer, Brother Printer DCP-B7500D, SSA 250M Amplifier- AHUJA with Speaker Boxes, Centralized UPS</p>	Even: 7x2hr 14 Hrs / week	Mr Rajesha	Lab Instructor	Diploma-ME
11	Computer Aided Machine Drawing Lab	70	<p>Intel Core i5 11400F processor, Gigabyte H510M-H 6 Motherboard Crucial 16GB DDR4 3200Mhz RAM, Crucial 250GB SSD P2 Nvme M.2, WD</p>	Odd: 2x2hrs 4 Hrs / week	Mr Harshith	Lab Instructor	Diploma-ME

			<p>Blue 1TB SATA HDD, 4GB Graphics card colorful GT730, AOC 19.5" monitor, Logitech K120 keyboard, Logitech M90 mouse</p> <p>Intel Core i5 12400 2500Mhz processor, Acer H610H7-M2 Motherboard, 16GB DDR4, 500 GB SSD, 4GB Graphics card colorful GT730, Acer 19.5" monitor, Acer keyboard, Acer mouse, Window OS 11, LCD Projector, Brother Printer DCP-B7500D IND, Canon LBP2900B Laser Printer, MTAB XL Turn CNC Slant Bed Turning Center, MTAB Turn Mill (OT & OM) CNC Simulation Software, Solid Works 2021, Amplifier SSA 250M - AHUJA with Speaker Boxes, Centralized UPS</p>				
12	CIM and Automation Lab	25	<p>i-5 Desktop Systems, Computers -4616 GB RAM NVME-M.21 TB HDD19.5" Monitor, Centralized UPS, Laser Printer (Canon laser shot 2900b)</p>	<p>4x2 hrs 8 Hrs / week</p>	Mr. Rajesha	Lab Instructor	Diploma-ME
13	Industrial Automation	25	<p>i-5 Desktop Systems, Computers -4616 GB RAM NVME-M.21 TB</p>	<p>2x2 hrs 4 Hrs / week</p>	Mr Immanuel Jayakaramana	Lab Assistant	Diploma -ME Craftmanship

	and PLC Programming Lab		HDD19.5” Monitor, SSD Hard disc, Centralized UPS, Festo Pneumatic systems Mobile workstation with two drawer unit set (Double sided), Electro-pneumatic Training Kit, PLC Training Kit, EPSON Projector EB-531, FluidSIM 5 Pneumatic software – 10 license, CIROS EDUCATION 6.2 software – 05 license, TIA v15.1 Software- 06 license, S7-PLCSIM Advanced V2.0 SP1 Software- 06 license		Mr Harshith	Lab Instructor	Diploma-ME
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D2. Safety Measures in Laboratories

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

SI No.	Name of the Laboratory	Safety Measures
1	Machine Shop	<ol style="list-style-type: none"> 1. All procedures which need to be conducted alone or after-hours need to be reviewed for hazards and must be approved by the Head of the Department. 2. The students are made aware of the location of all exits, evacuation route, first aid kit, eye wash, and fire extinguisher. 3. Students are made to wear approved eye protection (safety glasses, or goggles) at all times in some of the laboratories. 4. Protective Clothing (Uniform). 5. Shoes must completely cover the foot. No sandals or crocs are allowed.

SI No.	Name of the Laboratory	Safety Measures
		<ol style="list-style-type: none"> 6. Long hair must be tied back, and all loose clothing or dangling jewelry must be secured or removed while in the laboratory. 7. No food or drink of any kind in the laboratory. 8. No equipment is allowed to be operated without proper training or demonstrated competency. 9. All aisles and work space is kept clear of clutter. All exits, fire extinguishers, electrical disconnect and eye washes remain accessible at all times. 10. All equipment guards remain in place. Equipment's are not allowed to be modified without approval of the Head of the Department who will do a hazard assessment associated with proposed changes. 11. Any unsafe or dangerous behavior must be reported to the Course instructor/Lab in charge/ head of the Department. 12. All electrical work is reviewed by an electrician prior to use.
2	Workshop practice (Fitting & Welding)	<ol style="list-style-type: none"> 1. All procedures which need to be conducted alone or after-hours need to be reviewed for hazards and must be approved by the Head of the Department. 2. The students are made aware of the location of all exits, evacuation route, first aid kit, eye wash, and fire extinguisher. 3. Students are made to wear approved eye protection (safety glasses, or goggles) at all times in some of the laboratories. 4. Protective Clothing (Uniform). 5. Shoes must completely cover the foot. No sandals or crocs are allowed. 6. Long hair must be tied back, and all loose clothing or dangling jewelry must be secured or removed while in the laboratory. 7. No food or drink of any kind in the laboratory. 8. No equipment is allowed to be operated without proper training or demonstrated competency. 9. All aisles and work space is kept clear of clutter. All exits, fire extinguishers, electrical disconnect and eye washes remain accessible at all times.

SI No.	Name of the Laboratory	Safety Measures
		<p>10. Any unsafe or dangerous behavior must be reported to the Course instructor/Lab in charge/ head of the Department.</p> <p>11. All electrical work is reviewed by an electrician prior to use.</p>
3	<p>Foundry & Forging Lab</p>	<ol style="list-style-type: none"> 1. All procedures which need to be conducted alone or after-hours need to be reviewed for hazards and must be approved by the Head of the Department. 2. The students are made aware of the location of all exits, evacuation route, first aid kit, eye wash, and fire extinguisher. 3. Students are made to wear approved eye protection (safety glasses, or goggles) at all times in some of the laboratories. 4. Protective Clothing (Uniform) 5. Shoes must completely cover the foot. No sandals or crocs are allowed. 6. Long hair must be tied back, and all loose clothing or dangling jewelry must be secured or removed while in the laboratory. 7. No equipment is allowed to be operated without proper training or demonstrated competency. 8. All aisles and work space is kept clear of clutter. All exits, fire extinguishers, electrical disconnect and eye washes remain accessible at all times. 9. All equipment guards remain in place. Equipment's are not allowed to be modified without approval of the Head of the Department who will do a hazard assessment associated with proposed changes. 10. Any unsafe or dangerous behavior must be reported to the Course instructor/Lab in charge/ head of the Department. 11. All electrical work is reviewed by an electrician prior to use.
4	<p>Metallography & Material Testing Lab</p>	<ol style="list-style-type: none"> 1. All procedures which need to be conducted alone or after-hours need to be reviewed for hazards and must be approved by the Head of the Department. 2. The students are made aware of the location of all exits, evacuation route, first aid kit, eye wash, and fire extinguisher.

SI No.	Name of the Laboratory	Safety Measures
		<ol style="list-style-type: none"> 3. Students are made to wear approved eye protection (safety glasses, or goggles) at all times in some of the laboratories. 4. Protective Clothing (Uniform) 5. Shoes must completely cover the foot. No sandals or crocs are allowed. 6. Long hair must be tied back, and all loose clothing or dangling jewelry must be secured or removed while in the laboratory. 7. No equipment is allowed to be operated without proper training or demonstrated competency. 8. All aisles and work space is kept clear of clutter. All exits, fire extinguishers, electrical disconnect and eye washes remain accessible at all times. 9. All equipment guards remain in place. Equipment's are not allowed to be modified without approval of the Head of the Department who will do a hazard assessment associated with proposed changes. 10. Any unsafe or dangerous behavior must be reported to the Course instructor/Lab in charge/ head of the Department. 11. All electrical work is reviewed by an electrician prior to use.
5	CAD / CAM Lab	<ol style="list-style-type: none"> 1. Do not plug in external devices without scanning them for computer viruses. 2. Try not to touch any of the circuit boards and power sockets when a device is connected to them and switched on. 3. Students should not attempt to repair, open, tamper or interfere with any of the computer device. 4. Turn off the machine once you are done using it. 5. Do not eat or drink in the laboratory. 6. The students are made aware of the location of all exits, evacuation route, first aid kit, eye wash, and fire extinguisher. 7. All electrical work is reviewed by an electrician prior to use.

SI No.	Name of the Laboratory	Safety Measures
6	<p style="text-align: center;">Mechanical Measurements & Metrology Lab</p>	<ol style="list-style-type: none"> 1. All procedures which need to be conducted alone or after-hours need to be reviewed for hazards and must be approved by the Head of the Department. 2. The students are made aware of the location of all exits, evacuation route, first aid kit, eye wash, and fire extinguisher. 3. All electrical work is reviewed by an electrician prior to use.
7	<p style="text-align: center;">Energy Conversion Engineering Lab</p>	<ol style="list-style-type: none"> 1. All procedures which need to be conducted alone or after-hours need to be reviewed for hazards and must be approved by the Head of the Department. 2. The students are made aware of the location of all exits, evacuation route, first aid kit, eye wash, and fire extinguisher. 3. Students are made to wear approved eye protection (safety glasses, or goggles) at all times in some of the laboratories. 4. Shoes must completely cover the foot. No sandals or crocs are allowed. 5. Long hair must be tied back, and all loose clothing or dangling jewelry must be secured or removed while in the laboratory. 6. No equipment is allowed to be operated without proper training or demonstrated competency. 7. All aisles and work space is kept clear of clutter. All exits, fire extinguishers, electrical disconnect and eye washes remain accessible at all times. 8. All equipment guards remain in place. Equipment's are not allowed to be modified without approval of the Head of the Department who will do a hazard assessment associated with proposed changes. 9. All waste chemicals are put in approved and labeled containers. No hazardous waste is allowed to be dumped into sinks or garbage cans. 10. Any unsafe or dangerous behavior must be reported to the Course instructor/Lab in charge/ head of the Department. 11. All electrical work is reviewed by an electrician prior to use.

SI No.	Name of the Laboratory	Safety Measures
8	Heat and Mass Transfer Lab	<ol style="list-style-type: none"> 1. All procedures which need to be conducted alone or after-hours need to be reviewed for hazards and must be approved by the Head of the Department. 2. The students are made aware of the location of all exits, evacuation route, first aid kit, eye wash, and fire extinguisher. 3. Shoes must completely cover the foot. No sandals or crocs are allowed. 4. Long hair must be tied back, and all loose clothing or dangling jewelry must be secured or removed while in the laboratory. 5. No equipment is allowed to be operated without proper training or demonstrated competency. 6. All equipment guards remain in place. Equipment's are not allowed to be modified without approval of the Head of the Department who will do a hazard assessment associated with proposed changes. 7. All electrical work is reviewed by an electrician prior to use.
9	Design Lab	<ol style="list-style-type: none"> 1. All procedures which need to be conducted alone or after-hours need to be reviewed for hazards and must be approved by the Head of the Department. 2. The students are made aware of the location of all exits, evacuation route, first aid kit, eye wash, and fire extinguisher. 3. Shoes must completely cover the foot. No sandals or crocs are allowed. 4. Long hair must be tied back, and all loose clothing or dangling jewelry must be secured or removed while in the laboratory. 5. No equipment is allowed to be operated without proper training or demonstrated competency. 6. All equipment guards remain in place. Equipment's are not allowed to be modified without approval of the Head of the Department who will do a hazard assessment associated with proposed changes. 7. All electrical work is reviewed by an electrician prior to use.
10	Fluid Mechanics & Machines Lab	<ol style="list-style-type: none"> 1. All procedures which need to be conducted alone or after-hours need to be reviewed for hazards and must be approved by the Head of the Department.

SI No.	Name of the Laboratory	Safety Measures
		<ol style="list-style-type: none"> 2. The students are made aware of the location of all exits, evacuation route, first aid kit, eye wash, and fire extinguisher. 3. Students are made to wear approved eye protection (safety glasses, or goggles) at all times in some of the laboratories. 4. Shoes must completely cover the foot. No sandals or crocs are allowed. 5. Long hair must be tied back, and all loose clothing or dangling jewelry must be secured or removed while in the laboratory. 6. No equipment is allowed to be operated without proper training or demonstrated competency. 7. All aisles and work space is kept clear of clutter. All exits, fire extinguishers, electrical disconnect and eye washes remain accessible at all times. 8. All equipment guards remain in place. Equipment's are not allowed to be modified without approval of the Head of the Department who will do a hazard assessment associated with proposed changes. 9. Any unsafe or dangerous behavior must be reported to the Course instructor/Lab in charge/ head of the Department. 10. All electrical work is reviewed by an electrician prior to use.
11	<p style="text-align: center;">Computer Aided Engineering Drawing Lab</p>	<ol style="list-style-type: none"> 1. Do not plug in external devices without scanning them for computer viruses. 2. Try not to touch any of the circuit boards and power sockets when a device is connected to them and switched on. 3. Students should not attempt to repair, open, tamper or interfere with any of the computer devices. 4. Turn off the machine once you are done using it. 5. Do not eat or drink in the laboratory. 6. The students are made aware of the location of all exits, evacuation route, first aid kit, eye wash, and fire extinguisher. 7. All electrical work is reviewed by an electrician prior to use.

SI No.	Name of the Laboratory	Safety Measures
12	CIM and Automation Lab	<ol style="list-style-type: none"> 1. Do not plug in external devices without scanning them for computer viruses. 2. Try not to touch any of the circuit boards and power sockets when a device is connected to them and switched on. 3. Students should not attempt to repair, open, tamper or interfere with any of the computer devices. 4. The workspace should be situated away from carpeted areas since carpets build up electrostatic charges. 5. Turn off the machine once you are done using it. 6. Do not eat or drink in the laboratory. 7. The students are made aware of the location of all exits, evacuation route, first aid kit, eye wash, and fire extinguisher. 8. All electrical work is reviewed by an electrician prior to use.

D3. Project Laboratory/Research Laboratory

The Project Lab is a lab where all students have ready access to six dedicated computers with high speed internet connection (1GBPS). The primary purpose of the lab is to provide the space and resources needed by students to complete their Design and general student Projects. The lab is also available for students who need to complete projects and assignments from other courses and laboratories. The lab also serves as a meeting location for groups of students working on team projects. Students also use this lab to work on supplemental learning projects to enhance their understanding of class and lab assignments. There is a separate dedicated place where the student projects will be stored.

Students can use the design, analysis, fabrication and testing facility available in the department for the project by giving a request letter to the head of the department through the project guide. Also students can use the facility available in the other department in case of interdisciplinary project by giving the request letter to the HOD of the department where facility available through the guide and HOD, Mechanical engineering.


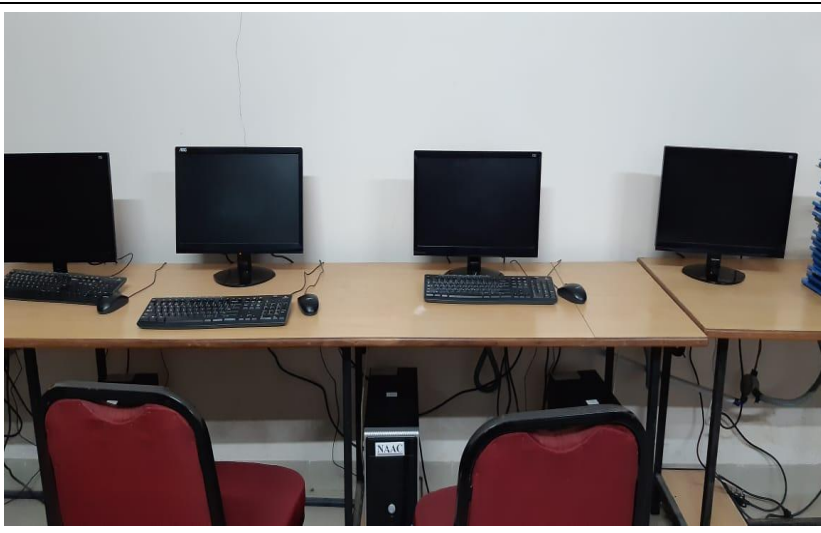
The following are the facilities are used by the students to complete their min and major projects provided.

Table 7.5.1: List of facilities available in the department used by students for project work

SL. No	Name of the Facilities	Location
1.	Solid Edge Version 20	CAMD Lab
2.	SolidWorks	CAMD/ CAED Lab
3.	ANSYS Version 13	FEA LAB
4.	CNC turning and CNC Milling, CNC simulation software.	CIM LAB
5.	Thermal Research Laboratory	Heat Transfer Lab
6.	Intellisuite Software	CIM LAB
7.	Computerized VCR Diesel Engine Test Rig with Exhaust Gas Analyser/ Smoke meter	Energy Conversion lab
8.	High Performance Computing Facilities (with ANSYS 17.1 and STAR CCM+)	Research Lab
9.	Melting Furnace	Material testing lab
10.	Computerized High-end Pin-on-Disc Wear Testing Machine with electronic weighing balance.	Material testing lab
11.	Sonicator	Research lab
12.	Vickers Hardness Tester	Material testing lab
13.	Computerized Impact Testing Machine (International Equipments, Mumbai)	Material testing lab
14.	Computerized UTM (International Equipments, Mumbai)	Material testing lab
15.	Notch cutter for impact testing (International Equipments, Mumbai)	Material testing lab
16.	Flammability tester	Material testing lab
17.	Festo Pneumatic systems, FluidSIM 5 Pneumatic software, CIROS EDUCATION 6.2, TIA v15.1 Software, S7-PLCSIM Advanced V2.0 SP1 Software.	Industrial Automation and PLC Programming Lab
18.	TIG welding machine	SAE Lab
19.	3D Printer	IDEA Lab
20.	Laser Cutter	IDEA Lab
21.	Shell and Tube Heat Exchanger	Heat and mass transfer lab
22.	Concentric Tube Heat Exchanger	Heat and mass transfer lab
23.	Metal Hydride Based Hydrogen Storage Experimental Setup	Research lab
24.	Shore-D Hardness Tester	Material testing lab

SL. No	Name of the Facilities	Location
25.	Lathe machine, drilling machine, grinding machine, shaper, milling machine	Machine shop
26.	Welding machine, bench wise	Workshop
27.	Rockwell and Brinnel hardness tester	Material testing lab
28.	Saybolt and Redwood viscometer	Energy conversion lab
29.	Bomb and Boys gas calorimeter	Energy conversion lab
30.	Casting facility	Foundry forging lab

Table 7.5.2: Project laboratory

	
<p align="center">Project lab (Room No 3312)</p>	<p align="center">Computer facility with high speed internet at project lab</p>



Applied engineering and computational analysis laboratory



Computational facility at applied engineering laboratory



Place to store the academic project



IDEA lab facility

Research Facility in the Department



Leica Optical Microscope



Pin-on-Disk Wear Tester

Pin-on-Disk Wear Tester



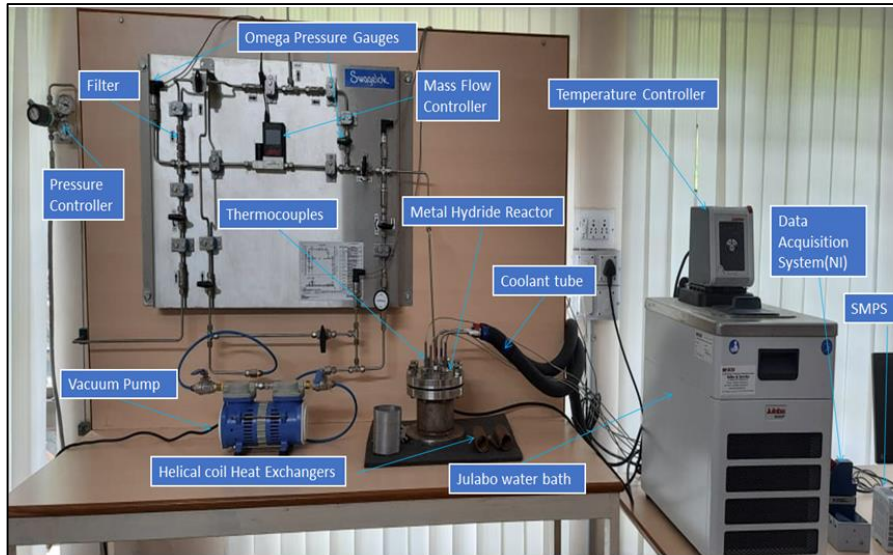
CERG LAB - Computing Facility



System Specifications
Intel Xenon Processor E5-2620 v3 (6C HT, 15MB Cache, 2.4GHz Turbo)
64 GB 2133MHz DDR4 RDIMM ECC
Nvidia Quadro K2200 4GB
2TB SATA HDD (3.5 inch, 7.2k RPM)



Computerized VCR IC Engine



Metal Hydride Based Hydrogen Storage Experimental Setup



Shell and tube type of heat exchanger



Vickers Hardness Tester



Flammability Tester



Impact testing machine



Universal Testing Machine

Table 7.5.3. List of Projects: Batch 2024-25 (With details of lab facility used for project work)

SL No	USN	Student Name	Project Guide	Project title	Lab facility used
1	4SO22ME423	Sourav M Joshi	Dr Swaraj D Lewis	Experimental and numerical analysis of phase change material thermal storage using fins	Heat Transfer Lab, Computer aided modelling lab
	4SO22ME407	Karthik M V			
	4SO22ME414	Naik Sanket Dhanyavan			
	4SO21ME058	Sayed Bilal			
2	4SO22ME418	Pratham K Bellarkar	Mr Prashanth Kumar	Design and fabrication of a springless suspension system using bevel gears	Machine shop, Workshop, Computer aided modelling lab
	4SO22ME404	Ashwith U Shetty			
	4SO22ME405	Deekshith K S			
	4SO22ME416	Nithin Kumar			
3	4SO22ME430	Vishwas Ragavendra	Dr Shreeranga Bhat	Rail Guard: An intelligent inspection Bot for enhanced railway safety	Computer aided modelling lab
	4SO22ME413	Mohammed Shifan			
	4SO21ME056	Rynor Gawain Pinto			
	4SO21ME070	Vion Lloyd Lobo			
4	4SO22ME429	Vinay Kumar D	Dr Vijay V S	Design of a water dispenser unit by utilizing waste heat recovery in a VCR system	Energy Conversion Lab Computerized VCR Diesel Engine Test Rig
	4SO22ME408	Krishna Prasad S Herala			
	4SO22ME417	Prasanna A Suvarna			
	4SO22ME427	Varsha M A			
5	4SO22ME421	Ranjith J Shetty	Dr Sushanth H G	Thermal behavior of silver oxide nanofluid in a concentric tube heat exchanger and effect of inserts on heat transfer enhancement	Heat Transfer Lab
	4SO22ME406	Gaurav			
	4SO22ME415	Newton Lawrence Lobo			
	4SO21ME073	Sinchana K C			
6	4SO21ME060	Shashanka Bhat M	Dr Pavana Kumara B	Inspection and cleaning of four inch pipe using robot	Computer aided modelling lab
	4SO22ME403	Ashitosh Patrekar			
	4SO22ME422	Shreyank Dinakar Gunagi			
	4SO22ME426	Tanojkumar Harijan			
7	4SO21ME069	Vinith	Mr Rajesh Belchada	Fluidic propulsion system	Machine shop, Workshop, Computer aided modelling lab.
	4SO22ME067	Thushar Kamath			
	4SO22ME410	Melber Stephen Sequeira			
	4SO22ME424	Srihari Rakshan Kottary			

8	4SO22ME402	Amosh	Mr Yathish Kumar	Design and development of smart mini gold fume extractor	Machine shop, Workshop, Computer aided modelling lab.
	4SO22ME400	Abhishek Ullas Naik			
	4SO22ME409	Manvith K J			
	4SO22ME412	Mevan Stephen Dsouza			
9	4SO21ME059	Sayed Sahil Ahamed	Dr Rolvin S D'Silva	Hybrid portable refrigeration	Workshop, Heat Transfer Lab
	4SO21ME063	Sheik Mohammed Safhan			
	4SO22ME411	Melron Arulu			
	4SO22ME431	Zeeshan Ul-Haque			
10	4SO21ME043	Muhammed Rihan	Ms Ramya M	Automated solar based road signal board cleaner using motors	Machine shop, Workshop
	4SO22ME419	Rahul Rajendra Pednekar			
	4SO22ME425	Sumanth Namdev Naik			
11	4SO21ME065	Sidharth E	Mr Prathviraj H	Pneumatic paper cutting machine with a proximity sensor based safety mechanism	Machine shop, Workshop, Computer aided modelling lab.
	4SO21ME004	Abhay L			
	4SO21ME047	Nirmal Venu			
	4SO22ME428	Varun Bhandary			
12	4SO21ME048	Nolan Aaron Pinto	Mr Abhijith S	Design and development of an automated 3 D Printed robotic arm with RFID based object sorting	Machine shop, Workshop, Computer aided modelling lab.
	4SO21ME025	HimanshuSaluja			
	4SO21ME050	Jeevaths P H			
	4SO22ME420	Ramesh Kashiram			
13	4SO21ME045	Nelson Sequeira	Dr Binu K G	Design, and analysis of polymer journal bearing	Computer aided modelling lab.
	4SO21ME027	Juvence Leon Lobo			
	4SO21ME055	Roydon Pinto			
	4SO21ME064	Sheikh Mohammed			
14	4SO21ME033	Mohammad Riyaz	Mr Poornesh M	Fabrication and Analysis of recyclable thermoplastic polymer Composite	Pin-on-Disc Wear Testing Machine with electronic weighing balance, Rockwell hardness tester, Furnace, UTM
	4SO21ME031	Mahmood Rifath			
	4SO21ME062	Sheik Mohammed Hilal			
	4SO21ME071	Zakir Hussain			
15	4SO21ME057	Sandesh Bekal	Dr Purushothama Chippar	Automated tire inflation and deflation system	Machine shop, Workshop, Computer aided modelling lab.
	4SO21ME007	Akash			
	4SO21ME053	Renish Joel Rebello			
	4SO21ME061	Shaun Clitus D'Sa			
	4SO21ME008	Akhil P B			Computer aided modelling lab.

16	4SO21ME016	Brayan John D'Souza	Mr.Vinoothan Kaliveer	Characterization studies on Nickel coating on stainless steel for hydrogen evolution reaction	
	4SO21ME054	Renol D'Souza			
	4SO22ME401	Alwyn Lobo			
17	4SO21ME021	Denwil Brynoth Fernandes	Dr Sudheer M	Fabrication and Analysis of mechanical properties of epoxy Composite with hollow glass-microspheres	Material Testing Lab -electronic weighing balance, Rockwell hardness tester, Furnace, Universal testing machine
	4SO21ME022	Hadef Ibrahim			
	4SO21ME038	Mohammed Asmaan			
	4SO21ME049	P D ShreyasKsheersagar			
18	4SO21ME009	Akshay P Nair	Dr Ravikanth Prabhu	Fabrication and analysis of forged flax fibre composites	Pin-on-Disc Wear Testing Machine with electronic weighing balance, Rockwell hardness tester, Furnace, UTM
	4SO21ME013	Anujna M			
	4SO21ME028	Kausha lManoj			
	4SO21ME035	Mohd. Afrad Aboobaker			
19	4SO21ME030	M Santhosh Prabhu	Dr Raju K	Design and fabrication of power operated decorticator for black pepper	Machine sop, Workshop, Computer aided modelling lab.
	4SO21ME006	Adithya S Shetty			
	4SO21ME017	Chethan S Shetty			
	4SO21ME018	Daniel Anthony Fernandes			
20	4SO21ME052	Prathik S Rao	Mr Joel A D'Mello	Design and fabrication of Casket lowering mechanism	Machine shop, Workshop, Computer aided modelling lab.
	4SO21ME029	Kiran Godfrey Pinto			
	4SO21ME051	Prathamesh P Acharya			
	4SO21ME068	Vaibhava K			
21	4SO21ME032	Mayur	Mr Ashwin Shetty	Advanced fabrication for high performance power lift system	Machine shop, Workshop, Computer aided modelling lab.
	4SO21ME010	Alden Mark Alvares			
	4SO21ME012	Anson Fernandes			
	4SO21ME046	Nihal R K			
22	4SO21ME036	Mohammed Amaan	Dr Raju K	Design and fabrication cost effective battery powered wheel chair	Machine shop, Workshop, Computer aided modelling lab.
	4SO21ME001	Abdul Hasan Rilwan			
	4SO21ME002	Abdul Khadar Sanooh			
	4SO21ME019	Davood Hakeem			
23	4SO21ME026	Ismail Raheez	Dr Sharun Mendonca	Mechanical behavior of e-glass/coir epoxy reinforced hybrid composite	Material Testing Lab (Pin-on-Disc weighing balance, Rockwell hardness tester, Furnace, UTM)
	4SO21ME003	Abdul Mehazir			
	4SO21ME005	Aboobakker Siddiq Sahood			
	4SO21ME015	Ayaan Mohammed			
	4SO21ME039	Mohammed Eyad	Mr Noel Deepak Shiri		

24	4SO21ME040	Mohammed Muthasib Baji		Design and fabrication of chamber for carbon mineralization of industrial residue for enhanced concrete	Machine shop, Workshop, Computer aided modelling lab.
	4SO21ME041	Mohammed Rehan			
	4SO21ME042	Mohammed Zaid			
	4SO21ME011	Ameen Ahsan			
	4SO21ME014	Aqeel Ahmed Sajid			
	4SO21ME023	Hasan Ahmed Razi			

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 member's in Basic Science Courses & Humanities and Social Sciences Including Management Courses (NS1)	No. of Faculty members in Engineering Science Courses (NS2)	Percentage= $\frac{\text{No. of faculty members } ((NS1*0.8) + (NS2*0.2))}{(\text{No. of required faculty } (RF4))}$. Percentage= $\frac{((NS1*0.8) + (NS2*0.2))}{RF}$
2025-26	840	42	24.61	15.08	54.05
2024-25	780	39	35.95	11.27	79.52
2023-24	780	39	32.69	10.64	72.51
Average Percentage					68.69

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

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

Items	Budgeted	Actuals	Budgeted	Actuals	Budgeted	Actuals	Budgeted	Actuals
	2025-26	2025-26	2024-25	2024-25	2023-24	2023-24	2022-23	2022-23
Infrastructure Build-Up	9,82,50,000	2,21,74,435	4,02,00,000	4,02,02,708	4,77,50,000	25,87,465	11,05,00,000	0
Library - Books and Journals	60,90,000	52,09,620	51,80,000	51,30,342	57,20,000	44,91,845	40,05,000	36,56,963
Laboratory equipment	2,75,00,000	1,91,04,274	3,68,25,000	2,42,54,802	2,80,00,000	2,82,77,859	2,60,84,000	1,82,72,736
Teaching-Non-Teaching Staff Salary	26,94,02,000	25,92,99,278	21,46,94,000	21,69,32,815	19,30,18,000	18,84,87,743	15,56,00,000	16,94,16,458
Outreach Programs	4,00,000	22,191	1,33,000	25,479	5,00,000	75,089	5,00,000	10,634
R & D	1,04,86,000	49,47,109	1,07,91,000	59,13,387	98,16,000	26,86,421	62,78,500	35,02,518
Training, Placement and Industry linkage	27,00,000	13,14,737	18,81,000	25,17,801	18,48,000	17,90,301	11,00,000	2689745
SDGs	15,00,000	1,62,687	12,00,000	4,56,070	52,00,000	17,32,223	0	0
Skill training expenses	1,54,63,000	93,32,378	1,88,95,000	1,66,57,044	1,37,50,000	1,26,64,348	1,30,00,000	1,17,38,042
Others, specify (Laboratory Consumables, Maintenance and Spares, Staff Benefits, Internet Charges, Extracurricular Expenses, University Payments, Miscellaneous Assets)	21,67,49,000	19,60,93,503	19,89,95,000	19,44,60,681	13,68,11,000	16,39,30,327	12,28,66,000	13,95,03,057
Total	64,85,40,000	51,76,60,212	52,87,94,000	50,65,51,129	44,24,13,000	40,67,23,621	43,99,33,500	34,87,90,153

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	Budgeted in 2023-2024	Actual Expenses in 2023-2024	Budgeted in 2022-2023	Actual Expenses in 2022-2023	Budgeted in 2021-2022	Actual Expenses in 2021-2022
Laboratory equipment	2,42,250	1,68,150	2,87,000	24,072	2,20,850	10,57,044	13,57,500	76,55,091
Software	0	0	0	0	0	0	0	0
SDGs	0	0	0	0	0	0	0	0
Support for faculty development	2,00,000	71,522	2,50,000	3,000	2,50,000	3,38,414	2,50,000	1,00,701
R & D	8,00,000	12,30,454	7,00,000	6,93,194	10,00,000	5,53,510	2,00,000	7,98,501

Industrial Training, Industry expert, Internship	25,90,000	23,369	0	32,792	0	57,927	0	0
Miscellaneous Expenses*	0	0	0	0	0	0	0	0
Total	60,12,500	30,06,845	12,37,000	7,53,058	34,58,500	20,06,895	18,07,500	85,54,293