

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 : 12097	Date of Submission : 25-08-2026

PART A- Profile of the Institute

A1.Name of the Institute : NAGESH KARAJAGI ORCHID COLLEGE OF ENGINEERING AND TECHNOLOGY SOLAPUR	
Year of Establishment : 2008	Location of the Institute: Solapur
A2. Institute Address :Gut No. 16, Solapur-Tuljapur Road, Tale Hipparaga, Solapur. Tahsil- North Solapur, Dist. Solapur. Pin Code- 413 002. Maharashtra.	
City:Sholapur	State:Maharashtra
Pin Code:413002	Website:www.orchidengg.ac.in
Email:office@orchidengg.ac.in	Phone No(with STD Code):0217-2990051
A3. Name and Address of the Affiliating University (if any):	
Name of the University : Dr Babasaheb Ambedkar Technological University	City: Raigad
State : Maharashtra	Pin Code: 402103
A4. Type of the Institution : Autonomous CAY(2024-25)	
A5. Ownership Status : Self financing	

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

- No. of UG programs: **6**
- No. of PG programs: **5**

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

Sr.No.	Discipline	Level of program	Name of the program	Year of Start	Year of Closed	Name of The Department
1	Engineering & Technology	UG	Artificial Intelligence and Data Science	2021	--	Computer Science and Engineering
2	Engineering & Technology	UG	Civil Engineering	2008	--	Civil Engineering
3	Engineering & Technology	PG	Computer Aided Structural Analysis & Design	2012	--	Civil Engineering
4	Engineering & Technology	PG	Computer Science and Engineering	2012	2022	Computer Science and Engineering
5	Engineering & Technology	UG	Computer Science and Engineering	2008	--	Computer Science and Engineering
6	Engineering & Technology	PG	Electric Vehicle Technology	2024	--	Mechanical Engineering
7	Engineering & Technology	UG	Electrical Engineering	2011	--	Electrical Engineering
8	Engineering & Technology	PG	Electronics and Telecommunication Engineering	2013	2022	Electronics and Telecommunication Engineering
9	Engineering & Technology	UG	Electronics and Telecommunication Engineering	2008	--	Electronics and Telecommunication Engineering

10	Engineering & Technology	UG	Mechanical Engineering	2008	--	Mechanical Engineering
11	Engineering & Technology	PG	Thermal Engineering	2013	--	Mechanical Engineering

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

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

Name of the Department	Having Allied Departments	Name of the Program	Program Level
Mechanical Engineering	No	Mechanical Engineering	UG

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

No Record

PART-B: Program information

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

Table No. B1: Program details.

A. List of the Programs Offered by the Department:

SR.NO.	PROGRAM NAME	PROGRAM APPLIED LEVEL	YEAR OF START / YEAR OF CLOSED	SANCTIONED INTAKE	INCREASE/ DECREASE INTAKE (if any)	YEAR OF INCREASE/ DECREASE	CURRENT INTAKE	YEAR OF AICTE APPROVAL	AICTE/COMPETENT AUTHORITY ARROVAL DETAILS	ACCREDITATION STATUS	FROM	TO	NO. OF TIMES PROGRAM ACCREDITED	PROGRAM DURATION
1	Mechanical Engineering	UG	2008 / --	60	Yes	2010	120	2010	Western Region, Maharashtra/1-2893356/2010/EOA August 23, 2010	Applying first time	--	--	0	4

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

List of the Allied Departments/Cluster and Programs:

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

A. Name of the HoD :	Dr. Kale S. S.
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)	120	120	120	120	120	120	120
N1=Total no. of students admitted in the 1st year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program	110	119	73	102	22	23	28
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	23	64	43	65	108	95
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	17	14	10	11	1	3	4
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	127	156	147	156	88	134	127

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)	120	110	17	105.83
2024-25 (CAYm1)	120	119	14	110.83
2023-24 (CAYm2)	120	73	10	69.17

Average [(ER1 + ER2 + ER3) / 3] = 95.28≡ 20.00

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

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

Item	(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).	132.00	132.00	132.00
B=No. of students who graduated from the program in the stipulated course duration	82.00	104.00	114.00
Success Rate (SR)= (B/A) * 100	62.12	78.79	86.36

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 75.76

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)	7.97	6.67	6.49
Y=Total no. of successful students	109.00	76.00	99.00

Z=Total no. of students appeared in the examination	133.00	83.00	113.00
API [X*(Y/Z)]	6.53	6.11	5.69

Average API[(AP1+AP2+AP3)/3] : 6.11

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)	6.94	6.80	6.48
Y=Total no. of successful students	125.00	132.00	85.00
Z=Total no. of students appeared in the examination	140.00	142.00	87.00
API [X * (Y/Z)]	6.20	6.32	6.33

Average API [(AP1 + AP2 + AP3)/3] : 6.28

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)	7.06	7.09	7.15
Y=Total no. of successful students	131.00	84.00	122.00
Z=Total no. of students appeared in the examination	132.00	85.00	128.00
API [X*(Y/Z)]:	7.01	7.01	6.81

Average API [(AP1 + AP2 + AP3)/3] : 6.94

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	132.00	134.00	132.00
X=No. of students placed	63.00	81.00	85.00
Y=No. of students admitted to higher studies	1.00	4.00	6.00
Z= No. of students taking up entrepreneurship	0.00	1.00	0.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	48.48	64.18	68.94

Average Placement Index = (P_1 + P_2 + P_3)/3: 60.53 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. Sonage B. K.	XXXXXXXX83A	Ph.D	NITK Surathkal	Mechanical	10/06/2008	18.2	Assistant Professor	Professor	01/08/2015	Regular	Yes		No
2	Dr. Metan S.S.	XXXXXXXX51E	Ph.D	NITK Surathkal	Mechanical	24/12/2008	17.8	Assistant Professor	Professor	01/07/2017	Regular	Yes		No
3	Dr. Kashid A. S.	XXXXXXXX00M	Ph.D	Sanjay Ghodawat University, Kolhapur	Mechanical	20/06/2008	18.2	Assistant Professor	Professor	01/07/2024	Regular	Yes		No
4	Dr. Patil N. R.	XXXXXXXX69R	Ph.D	NITK Surathkal	Mechanical	18/07/2009	17.1	Assistant Professor	Professor	03/06/2019	Regular	Yes		No
5	Dr. Kale S. S.	XXXXXXXX01D	Ph.D	Shivaji Univ. Kolhapur	Mechanical	21/06/2008	18.2	Assistant Professor	Associate Professor	01/06/2026	Regular	Yes		Yes
6	Mr . Patil Y. B.	XXXXXXXX46A	M.E.	PAH Solapur Univ. Solapur	MANUFACTURING	01/06/2010	16.2	Assistant Professor	Assistant Professor		Regular	Yes		No
7	Dr. Papade C. V.	XXXXXXXX18C	Ph.D	Savitribai Phule Pune University, Pune	Mechanical	01/07/2010	16.1	Assistant Professor	Associate Professor	01/01/2025	Regular	Yes		No
8	Mr. Khillare S. K.	XXXXXXXX89R	M.Tech	SRTM Univ. Nanded	CAD-CAM	12/08/2010	16	Assistant Professor	Assistant Professor		Regular	Yes		No
9	Mr. Birajdar B. R.	XXXXXXXX66K	M.E.	PAH Solapur Univ. Solapur	Design	01/06/2011	15.2	Assistant Professor	Assistant Professor		Regular	Yes		No
10	Mr. Awate M. B.	XXXXXXXX93Q	M.E.	PAH Solapur Univ. Solapur	Design	01/06/2011	15.2	Assistant Professor	Assistant Professor		Regular	Yes		No
11	Dr. Magar A. B.	XXXXXXXX87K	Ph.D	SVNIT Surat	Mechanical	04/07/2011	15.1	Assistant Professor	Associate Professor	03/10/2022	Regular	Yes		No
12	Mr. Kamble A.H.	XXXXXXXX45R	Ph.D	Shivaji Univ. Kolhapur	Production	18/12/2012	13.8	Assistant Professor	Assistant Professor		Regular	Yes		No
13	Mr. Bhoge D. D.	XXXXXXXX00H	M.E.	Shivaji Univ. Kolhapur	Heat Power Engg.	02/08/2010	16	Assistant Professor	Assistant Professor		Regular	Yes		No
14	Mr. Dhobale A. S.	XXXXXXXX02A	M.E.	Shivaji Univ. Kolhapur	CAD-CAM	02/07/2012	14.1	Assistant Professor	Assistant Professor		Regular	Yes		No
15	Mr. Shaikh K. A.	XXXXXXXX27M	M.E.	PAH Solapur Univ. Solapur	Design	11/03/2022	4.5	Assistant Professor	Assistant Professor		Regular	Yes		No

16	Mr. Gaikwad D. R.	XXXXXXXX47G	M.E.	PAH Solapur Univ. Solapur	Production	11/11/2022	3.9	Assistant Professor	Assistant Professor		Regular	Yes		No
17	Ms. Sanga R. V.	XXXXXXXX49F	M.Tech	PAH Solapur Univ. Solapur	Thermal Engg.	29/11/2022	3.8	Assistant Professor	Assistant Professor		Regular	Yes		No
18	Dr. Kulkarni M. B.	XXXXXXXX00Q	Ph.D	Savitribai Phule Pune University, Pune	Mechanical	24/07/2023	3	Associate Professor	Associate Professor	24/07/2023	Regular	Yes		No
19	Mr. Kalje A.M.	XXXXXXXX17H	M.E.	Shivaji Univ. Kolhapur	Production	01/08/2023	3	Assistant Professor	Assistant Professor		Regular	Yes		No
20	Mr. Deshpande M. S.	XXXXXXXX16A	M.E.	Shivaji Univ. Kolhapur	Production	01/01/2024	2.7	Assistant Professor	Assistant Professor		Regular	Yes		No
21	Mr. Gaikwad S. N.	XXXXXXXX80E	M.Tech	Savitribai Phule Pune University, Pune	Metallurgy process	08/06/2024	2.2	Assistant Professor	Assistant Professor		Regular	Yes		No
22	Mr. Sankul M.Y.	XXXXXXXX03R	M.Tech	Shivaji Univ. Kolhapur	Heat Power Engg.	15/07/2025	1.1	Assistant Professor	Assistant Professor		Regular	Yes		No
23	Mr. Utage S. M.	XXXXXXXX77B	M.Tech	Visvesvaraya Technological University, Karnataka	Production and Design	11/08/2025	1	Assistant Professor	Assistant Professor		Regular	Yes		No
24	Dr. Hiremath V. S.	XXXXXXXX52L	Ph.D	VIT Vellore	Mechanical	05/08/2024	1.4	Assistant Professor	Assistant Professor		Regular	No	30/12/2025	No
25	Mr. Garande T. A.	XXXXXXXX21J	M.E.	PAH Solapur Univ. Solapur	Design	28/07/2023	1.11	Assistant Professor	Assistant Professor		Regular	No	26/07/2025	No
26	Mr. Nimbalkar A. A.	XXXXXXXX62T	M.Tech	Mumbai Univ., Mumbai	Production	16/09/2022	1.9	Assistant Professor	Assistant Professor		Regular	No	11/07/2024	No
27	Dr. Kazi A.M.	XXXXXXXX76H	Ph.D	Visvesvaraya Technological University, Karnataka	Mechanical	06/04/2023	1.2	Assistant Professor	Assistant Professor		Regular	No	29/06/2024	No
28	Dr. Gudur S. E.	XXXXXXXX42N	Ph.D	IIT, Hyderabad	Mechanical	17/07/2023	0.8	Assistant Professor	Assistant Professor		Regular	No	18/03/2024	No
29	Dr. Biradar S. P.	XXXXXXXX75M	Ph.D	NITK Surathkal	Mechanical	10/03/2022	0.6	Assistant Professor	Assistant Professor		Regular	No	22/09/2022	No
30	Dr. Shinde M. S.	XXXXXXXX92A	Ph.D	VNIT Nagpur	Mechanical	01/02/2023	0.5	Assistant Professor	Assistant Professor		Regular	No	17/07/2023	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 Department2

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	132
UG1: Mechanical Engineering	396	396	396
PG1.A	6	6	0
PG1.B	6	0	0
PG1: Electric Vehicle Technology	12	6	0
PG2.A	6	6	6
PG2.B	6	6	6
PG2: Thermal Engineering	12	12	12
DS=Total no. of students in all UG and PG programs in the Department	420	414	408
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= 420	S2= 414	S3= 408
DF=Total no. of faculty members in the Department	23	23	22
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= 23	F2= 23	F3= 22
FF=The faculty members in F who have a 100% teaching load in the first-year courses	3	3	3
Student Faculty Ratio (SFR)=S/(F-FF)	SFR1= 21.00	SFR2= 20.70	SFR3= 21.47
Average SFR for 3 years	SFR= 21.06		

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)	8	15	20.00	17.50
2024-25(CAYm1)	8	15	20.00	17.50
2023-24(CAYm2)	6	16	20.00	15.50

C4. Faculty Cadre Proportion

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

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

Year	Professors		Associate Professors		Assistant Professors	
	Required RF1	Available AF1	Required RF2	Available AF1	Required RF3	Available AF3
2025-26	2.00	4.00	5.00	3.00	14.00	16.00
2024-25	2.00	4.00	5.00	2.00	14.00	17.00
2023-24	2.00	3.00	5.00	2.00	14.00	17.00
Average	RF1=2.00	AF1=3.67	RF2=5.00	AF2=2.33	RF2=14.00	AF2=16.67

C5. Visiting/Adjunct Faculty/Professor of Practice

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

(CAYm1)						
S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled	
1	Prof. Dyaneshwar Thombare	Corporate Trainer	GIRI's Tech Hub, Pune	C Programming	66.00	
(CAYm2)						
S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled	
1	Prof. Dyaneshwar Thombare	Corporate Trainer	GIRI's Tech Hub, Pune	C Programming	66.00	
(CAYm3)						
S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled	
1	Mr. Akshay Khandekar	Corporate Trainer	Aptech Solutions, Kolhapur	Aptitude and Logical Skills	72.00	

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	9	12	3
2	No. of peer reviewed conference papers published	4	7	4
3	No. of books/book chapters published	1	2	5

C7. Sponsored Research Project

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

(CAYm1)						
PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr. S. S. Metan		Mechanical Engineering	Developing Floating Solar Power Plant- -Increase the capacity of the plant	La Fondation Dassault Systemes Pune	1 Year	1.00
Dr. S. S. Metan		Mechanical Engineering	Optimization of Solar Tree (Leaf Structure)	La Fondation Dassault Systemes Pune	1 Year	3.00
Dr. S. S. Metan		Mechanical Engineering	Design and 3-D Modeling of Solar Tree (Development of Sustainable System of Green Electricity Production on Photovoltaic Panel)	La Fondation Dassault Systemes Pune	4 Months	3.50
						Amount received (Rs.):7.50

(CAYm2)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr. B.K. Sonage	Prof. D. D. Bhoge	Mechanical Engineering	Smart Building Technologies for Decarbonaiztion	Dr. Babasaheb Ambedkar Technological University, Lonere	2 Years	1.50
Dr. S. S..Metan		Mechanical Engineering	Solar Tree Optimization	La Fondation Dassault Systemes Pune	2 Years	4.75
Dr. S. S..Metan		Mechanical Engineering	Solar Floating Power Plant as Micro Power Generation for Rural Ecosystem	La Fondation Dassault Systemes Pune	2 Years	5.00
Dr. S. S..Metan		Mechanical Engineering	Design of 4 kV Solar Tree Optimized for European Conditions Focusing on Efficiency and Resource Utilization	La Fondation Dassault Systemes Pune	3 Months	6.00
Dr. S. S..Metan	Dr. C. V. Papade	Mechanical Engineering	Projects Related to Solar Energy Utilization	La Fondation Dassault Systemes Pune	3 Weeks	3.00
						Amount received (Rs.):20.25

(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. S. S. Kale		Mechanical Engineering	Integrated Electromotive Wheel Retrofit for BicycleElectrification	La Fondation Dassault Systemes Pune	2 Years	1.00
Dr. B. K. Sonage	Dr. A. S. Kashid	Mechanical Engineering	Biogas Generation from Agro-Waste (Waste Utilization)	Maharashtra Pollution Control Boards (MPCB), Mumbai	18 Months	4.30
						Amount received (Rs.):5.30

Total Amount (Lacs) Received for the Past 3 Years: 33.05**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
Prof. A. S. Dhobale		Mechanical Engineering	Conduction of Practical on CNC Lathe and CNC Milling Machine	SES Polytechnic, Solapur	1 Week	0.04
Dr. C. V. Papade		Mechanical Engineering	Solar Dryer for RSVC Centre Pabhal	dassault Systems La Fondation	1 Year	6.00
Prof. B. R. Birajdar	Prof. D. D. Bhoge	Mechanical Engineering	Design and Development of Formula Student car	Jalsamrudhi Agro Agencies Solapur	1 year	0.25
Dr. S. S. Metan	Dr. C. V. Papade	Mechanical Engineering Department	Special Internship for Emerging Technolgy for 04 French and 06 Indian Students	Dassault Systems La Fondation	1 Year	3.00
Dr. S. S. Metan		Mechanical Engineering Department	Industry Mentorship Program	Dassault Systems	1 Year	0.50
Prof. A. S. Dhobale		Mechanical Engineering Department	Industry Mentorship Program	Dassault Systems	1 Year	0.50
						Amount received (Rs.):10.29

(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. S. S. Metan	Dr. C. V. Papade	Mechanical Engineering Department	Special Internship for Emerging Technolgy for 03 French and 06 Indian Students	Dassault Systems La Fondation	1 Year	2.00
Dr. S. S. Metan		Mechanical Engineering Department	Industry Mentorship Program	Dassault Systems	1 Year	0.50
Prof. A. S. Dhobale		Mechanical Engineering Department	Industry Mentorship Program	Dassault Systems	1 Year	0.50
						Amount received (Rs.):3.00

(CAYm3)						
PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Prof. A. S. Dhobale		Mechanical Engineering Department	Consultancy Charges for Technical Book Translation English to Marathi – Engineering Graphics Book	AICTE	1 Year	1.00
						Amount received (Rs.):1.00

Total amount (Lacs) received for the past 3 years: 14.29

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
Prof. B. R. Birajdar	SUPRA Formula Car Project	1 Year	1.14	1.14	Students got skills in CAD design, vehicle dynamics, fabrication, and testing
Prof. B. R. Birajdar	SUPRA Formula Car Project	1 Year	1.01	1.01	Students got skills in CAD design, vehicle dynamics, fabrication, and testing
Prof. B. R. Birajdar	SUPRA Formula Car Project	1 Year	1.49	1.49	Students got skills in CAD design, vehicle dynamics, fabrication, and testing
Prof. B. R. Birajdar	SUPRA Formula Car Project	1 Year	0.13	0.13	Students got skills in CAD design, vehicle dynamics, fabrication, and testing
Dr. S. S. Metan	Design and Development of Drone (Team Pushpak)	1 Year	0.12	0.12	Students gained practical knowledge of aerodynamics, electronics, embedded systems, and control systems
Dr. V. S. Hiremath	Financial Support for Research Paper Publication	6 Months	0.04	0.04	Research paper published in Scopus-indexed journal.
Dr. V. S. Hiremath	Financial Support for Research Paper Publication	6 Months	0.03	0.03	Research paper published in Scopus-indexed journal.
Prof. B. R. Birajdar	Financial Support for Patent Filing	6 Months	0.12	0.12	Patent application filed; protection of intellectual property generated through research and promotion of innovation and technology development.
Dr. S. S. Kale	Financial Support for Patent Filing	6 Months	0.06	0.06	Patent application filed; protection of intellectual property generated through research and promotion of innovation and technology development.
Dr. S. S. Kale	Design and Development of Solar Grain Cleaning Machine	1 Year	0.08	0.08	B.Tech Students project
Dr. S. S. Metan	Solar Tree Optimization (Leaf Structure)	1 Year	0.50	0.50	Optimized solar tree design for improved solar energy harvesting and efficient land utilization
Dr. S. S. Metan	Solar Floating Power Plant (Capacity 6KW)	1 Year	2.50	2.50	Developed a prototype for floating solar power generation
Dr. C. V. Papade	Solar Dryer for RSVC Centre Pabhal	1 Year	1.00	1.00	Developed and installed solar dryer at RSVC Centre Pabhal
			Amount received (Rs.): 8.22		

(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. S. S. Metan	Solar floating powerplant as micro power generation for rural ecosystem	1 Year	1.00	1.00	Developed a prototype for floating solar power generation
Prof. R. V. Sanga	Supra Vehicle Project	1 Year	0.10	0.10	Students got skills in CAD design, vehicle dynamics, fabrication, and testing
Prof. R. V. Sanga	Supra Vehicle Project	1 Year	0.27	0.27	Students got skills in CAD design, vehicle dynamics, fabrication, and testing
Prof. B. R. Birajdar	Supra Vehicle Project	1 Year	1.03	1.03	Students got skills in CAD design, vehicle dynamics, fabrication, and testing
Prof. A. H. Kamble	Smart Dustbin	1 Year	0.08	0.08	B.Tech Students Project
Dr. S. E. Gudur	Revolutionizing Wax Pattern Fabrication with Plastic Dies	1 Year	0.07	0.07	B.Tech Students Project
Prof. A. H. Kamble	Financial Support for Participation in AIMTDR-2023 at IIT Varanasi	4 Months	0.09	0.09	Research paper presented at the conference
Dr. A. S. Kashid	Financial Support for Participation in International Conference	4 Months	0.06	0.06	Research paper presented at the conference
Dr. S. S. Kale	Financial Support for Participation in International Conference	4 Months	0.06	0.06	Research paper presented at the conference
Prof. K. A. Shaikh	Financial Support for Participation in International Conference	4 Months	0.06	0.06	Research paper presented at the conference
Dr. A. M. Kazi	Financial Support for Research Paper Publication	4 Months	0.04	0.04	Research paper published in Scopus-indexed journal
Dr. A. S. Kashid	Financial Support for Research Paper Publication	4 Months	0.21	0.21	Research paper published in Scopus-indexed journal
Dr. S. S. Metan	Solar Tree Optimization (Leaf Structure)	1 Year	0.50	0.50	Optimized solar tree design for improved solar energy harvesting and efficient land utilization
			Amount received (Rs.): 3.57		

(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
Prof. B. R. Birajdar	Energy Generation using Roof Top Ventilator	1 Year	0.09	0.09	B.Tech. Students Project
Dr. C. V. Papade	Solapr Panel Laminating Machine	1 Year	0.18	0.18	B.Tech. Students Project
Dr. C. V. Papade	Solar Operated Self Balancing Vehicle	1 Year	0.18	0.18	B.Tech. Students Project
Prof. K. A. Shaikh	Peltier Effect based Air Cooler	1 Year	0.06	0.06	B.Tech. Students Project
Prof. D. D. Bhoge	Design and Development of Solar Thermoelectric Refrigerator	1 Year	0.05	0.05	B.Tech. Students Project
Prof. D. R. Gaikwad	Design and Analysis of Earth Air Tunnel Heat Exchanger System	1 Year	0.09	0.09	B.Tech. Students Project
Prof. S. K. Khillare	Digital Lathe Dimension Measurement System	1 Year	0.10	0.10	B.Tech. Students Project
Dr. S. S. Metan	Solar Operated Self Balancing Vehicle	1 Year	0.31	0.31	B.Tech. Students Project
Prof. B. R. Birajdar	Hybrid Energy Generation System through Solar and Moving Vehicle	1 Year	0.09	0.09	B.Tech. Students Project
Dr. N. R. Patil	Design and Development of Air Purifier and Humidifier	1 Year	0.11	0.11	B.Tech. Students Project
Dr. S. S. Kale	Integrated Electromotive Wheel Retrofit for Bicycle Electrification	1 Year	0.50	0.50	B.Tech. Students Project
Dr. C. V. Papade	Design and Development of Elliptical Movement Bicycle	1 Year	0.08	0.08	B.Tech. Students Project
Dr. S. S. Metan	Solar Operated Self-Balancing Vehicle	1 Year	0.31	0.31	Developed a Prototype
			Amount received (Rs.): 2.15		
Total amount (Lacs) received for the past 3 years : 13.94					

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	Mechatronics Lab	25	1.8085 Microprocessor with 16 x 2 line LCD Display, PC Keyboard and Power Supply XPO – 85. 2. 8051 Microcontroller with 40-pin LCD Display, PC Keyboard and Power Supply XPO – 85.	12 hrs Per Week	Mr. S. N. Birajdar	Lab Assistant	Diploma in Mechanical Engineering
2	Theory of Machine	25	1.Universal Governor Apparatus. 2. Cam Analysis Apparatus. 3. Motorized Gyroscope. 4.Whirling of Shafts Apparatus. 5. Universal Motion Picture Apparatus.	12 hrs Per Week	Ms. A. R. Mane	Lab Assistant	Diploma in Textile Engineering
3	Refrigeration and Air Conditioning Lab	25	1.Refrigeration Tutor. 2. Mechanical Heat Pump. 3. Air Conditioning Tutor. 4. Ice Plant Tutor. 5. Board made up of components to configuration and A/c	6 hrs Per Week	Mr. A. A. Shinde	Lab Assistant	Diploma in Mechanical Engineering
4	Heat and Mass Transfer Lab	25	1. Setup for determination of:1. Thermal conductivity of insulating powder. 2. Thermal conductivity of composite wall. 3. Stefan Boltzmann constant. 4.	12 hrs Per Week	Ms. A. R. Mane	Lab Assistant	Diploma in Textile Engineering

5	Workshop and Manufacturing Lab (Machine Shop, Welding Shop,	25	1.Heavy Duty Lathe Machine. 2. Medium Duty Lathe Machine. 3. Radial Drilling Machine. 4. Grinding Machine. 5. Shaper Machine. 6. Pillar Type Drill Press. 7. Planer Machine. 8. Slotting Machine. 9. Boring Machine. 10. Turret Lathe Machine. 11. Turret Boring Machine. 12. Turret Planer Machine. 13. Turret Slotting Machine. 14. Turret Boring Machine. 15. Turret Planer Machine. 16. Turret Slotting Machine. 17. Turret Boring Machine. 18. Turret Planer Machine. 19. Turret Slotting Machine. 20. Turret Boring Machine. 21. Turret Planer Machine. 22. Turret Slotting Machine. 23. Turret Boring Machine. 24. Turret Planer Machine. 25. Turret Slotting Machine.	36 hrs Per Week	Mr. A. M. Metkari	Workshop Instructor	Diploma in Mechanical Engineering
6	CAD/CAM Lab	25	1. Dell Optiplex 360 desktop. 2. HP plotter DNJ N 110+. 3. 6KVA Libert online UPS with 20 min battery. 4. Software: CAD/CAM Software. 5. Software: CAD/CAM Software. 6. Software: CAD/CAM Software. 7. Software: CAD/CAM Software. 8. Software: CAD/CAM Software. 9. Software: CAD/CAM Software. 10. Software: CAD/CAM Software. 11. Software: CAD/CAM Software. 12. Software: CAD/CAM Software. 13. Software: CAD/CAM Software. 14. Software: CAD/CAM Software. 15. Software: CAD/CAM Software. 16. Software: CAD/CAM Software. 17. Software: CAD/CAM Software. 18. Software: CAD/CAM Software. 19. Software: CAD/CAM Software. 20. Software: CAD/CAM Software. 21. Software: CAD/CAM Software. 22. Software: CAD/CAM Software. 23. Software: CAD/CAM Software. 24. Software: CAD/CAM Software. 25. Software: CAD/CAM Software.	36 hrs Per Week	Mr. A. A. Shinde	Lab Assistant	Diploma in Mechanical Engineering
7	Computational Lab	25	1. Solidworks 2024 Perpetual EDU. 2. 3D Experience Product. 3. AMC of Solid Works EDU. 4. 3D Experience Product. 5. Dell Optiplex 360 desktop. 6. HP plotter DNJ N 110+. 7. 6KVA Libert online UPS with 20 min battery. 8. Software: CAD/CAM Software. 9. Software: CAD/CAM Software. 10. Software: CAD/CAM Software. 11. Software: CAD/CAM Software. 12. Software: CAD/CAM Software. 13. Software: CAD/CAM Software. 14. Software: CAD/CAM Software. 15. Software: CAD/CAM Software. 16. Software: CAD/CAM Software. 17. Software: CAD/CAM Software. 18. Software: CAD/CAM Software. 19. Software: CAD/CAM Software. 20. Software: CAD/CAM Software. 21. Software: CAD/CAM Software. 22. Software: CAD/CAM Software. 23. Software: CAD/CAM Software. 24. Software: CAD/CAM Software. 25. Software: CAD/CAM Software.	36 hrs Per Week	Mr. S. N. Birajdar	Lab Assistant	Diploma in Mechanical Engineering
8	Engineering Metallurgy Lab	25	1. Double Disc Polishing Machine. 2. Binocular Metal Microscope. 3. Trinocular Metallurgical Microscope. 4. Test Rig for Corrosion Test. 5. Test Rig for Corrosion Test. 6. Test Rig for Corrosion Test. 7. Test Rig for Corrosion Test. 8. Test Rig for Corrosion Test. 9. Test Rig for Corrosion Test. 10. Test Rig for Corrosion Test. 11. Test Rig for Corrosion Test. 12. Test Rig for Corrosion Test. 13. Test Rig for Corrosion Test. 14. Test Rig for Corrosion Test. 15. Test Rig for Corrosion Test. 16. Test Rig for Corrosion Test. 17. Test Rig for Corrosion Test. 18. Test Rig for Corrosion Test. 19. Test Rig for Corrosion Test. 20. Test Rig for Corrosion Test. 21. Test Rig for Corrosion Test. 22. Test Rig for Corrosion Test. 23. Test Rig for Corrosion Test. 24. Test Rig for Corrosion Test. 25. Test Rig for Corrosion Test.	12 hrs Per Week	Mr. A. A. Shinde	Lab Assistant	Diploma in Mechanical Engineering
9	Thermodynamics Lab	25	1. Bomb Calorimeter. 2. Model of Cochran Boiler. 3. Model of Babcock and Wilcox Boiler. 4. Redwood Viscosity Tester. 5. Redwood Viscosity Tester. 6. Redwood Viscosity Tester. 7. Redwood Viscosity Tester. 8. Redwood Viscosity Tester. 9. Redwood Viscosity Tester. 10. Redwood Viscosity Tester. 11. Redwood Viscosity Tester. 12. Redwood Viscosity Tester. 13. Redwood Viscosity Tester. 14. Redwood Viscosity Tester. 15. Redwood Viscosity Tester. 16. Redwood Viscosity Tester. 17. Redwood Viscosity Tester. 18. Redwood Viscosity Tester. 19. Redwood Viscosity Tester. 20. Redwood Viscosity Tester. 21. Redwood Viscosity Tester. 22. Redwood Viscosity Tester. 23. Redwood Viscosity Tester. 24. Redwood Viscosity Tester. 25. Redwood Viscosity Tester.	12 hrs Per Week	Mr. S. B. Lokhande	General Technical Assistant	ITI Motor Mechanic
10	I. C. Engine Lab	25	1. Computerized VCR Engine Test Setup. 2. Petrol Engine Test Setup (231H). 3. Cut section Model of Engine. 4. Cut section Model of Engine. 5. Cut section Model of Engine. 6. Cut section Model of Engine. 7. Cut section Model of Engine. 8. Cut section Model of Engine. 9. Cut section Model of Engine. 10. Cut section Model of Engine. 11. Cut section Model of Engine. 12. Cut section Model of Engine. 13. Cut section Model of Engine. 14. Cut section Model of Engine. 15. Cut section Model of Engine. 16. Cut section Model of Engine. 17. Cut section Model of Engine. 18. Cut section Model of Engine. 19. Cut section Model of Engine. 20. Cut section Model of Engine. 21. Cut section Model of Engine. 22. Cut section Model of Engine. 23. Cut section Model of Engine. 24. Cut section Model of Engine. 25. Cut section Model of Engine.	12 hrs Per Week	Mr. S. B. Lokhande	General Technical Assistant	ITI Motor Mechanic
11	Basic Mechanical Engineering Lab	25	1. Set up for Study of Velocity Ratio. 2. Gas Turbine Model. 3. All Gear kit containing 4 types of Gear. 4. Window Air Conditioning Model (O.D.A.C). 5. Window Air Conditioning Model (O.D.A.C). 6. Window Air Conditioning Model (O.D.A.C). 7. Window Air Conditioning Model (O.D.A.C). 8. Window Air Conditioning Model (O.D.A.C). 9. Window Air Conditioning Model (O.D.A.C). 10. Window Air Conditioning Model (O.D.A.C). 11. Window Air Conditioning Model (O.D.A.C). 12. Window Air Conditioning Model (O.D.A.C). 13. Window Air Conditioning Model (O.D.A.C). 14. Window Air Conditioning Model (O.D.A.C). 15. Window Air Conditioning Model (O.D.A.C). 16. Window Air Conditioning Model (O.D.A.C). 17. Window Air Conditioning Model (O.D.A.C). 18. Window Air Conditioning Model (O.D.A.C). 19. Window Air Conditioning Model (O.D.A.C). 20. Window Air Conditioning Model (O.D.A.C). 21. Window Air Conditioning Model (O.D.A.C). 22. Window Air Conditioning Model (O.D.A.C). 23. Window Air Conditioning Model (O.D.A.C). 24. Window Air Conditioning Model (O.D.A.C). 25. Window Air Conditioning Model (O.D.A.C).	24 hrs Per Week	Mr. P. V. Patil	General Technical Assistant	ITI Motor Mechanic
12	Drawing Hall (Total 3)	25	1. Engineering. Drawing Charts. 2. Perfecta Drawing Instruments. 3. Engineering Graphics Learning Materials (Teacher Module CD). 4. Computerized Drawing Software. 5. Computerized Drawing Software. 6. Computerized Drawing Software. 7. Computerized Drawing Software. 8. Computerized Drawing Software. 9. Computerized Drawing Software. 10. Computerized Drawing Software. 11. Computerized Drawing Software. 12. Computerized Drawing Software. 13. Computerized Drawing Software. 14. Computerized Drawing Software. 15. Computerized Drawing Software. 16. Computerized Drawing Software. 17. Computerized Drawing Software. 18. Computerized Drawing Software. 19. Computerized Drawing Software. 20. Computerized Drawing Software. 21. Computerized Drawing Software. 22. Computerized Drawing Software. 23. Computerized Drawing Software. 24. Computerized Drawing Software. 25. Computerized Drawing Software.	24 hrs Per Week	Mr. P. V. Patil	General Technical Assistant	ITI Motor Mechanic

D2. Safety Measures in Laboratories

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

Sr. No	Laboratory Name	Safety Measures
1	Mechatronics Lab.	a) Basic Safety Features: Fire extinguishers, first-aid facility, proper electrical wiring and earthing, safety signage, adequate ventilation, housekeeping, and emergency contacts. b) Lab-specific Safety Features: Emergency stop switches, machine guards, electrical safety devices, proper grounding, protective covers, and safety arrangements for pneumatic/hydraulic and automation systems.
2	Theory of Machines Lab.	a) Basic Safety Features: Fire extinguishers, first-aid facility, safety signage, proper electrical wiring and earthing, ventilation, and housekeeping. b) Lab Safety Features: Protective covers on rotating and moving parts, machine guarding, warning signage, emergency stop arrangements, and secure mounting of mechanical models.
3	Refrigeration & Air Conditioning Lab.	a) Basic Safety Features: Fire extinguishers, first-aid facility, proper electrical wiring and earthing, safety signage, ventilation, and housekeeping. b) Lab Safety Features: Pressure relief devices, refrigerant leak detection, proper ventilation, insulated pipelines, electrical safety devices, and emergency shutdown arrangements.
4	Heat and Mass Transfer Lab.	a) Basic Safety Features: Fire extinguishers, first-aid facility, safety signage, proper electrical wiring and earthing, ventilation, and housekeeping. b) Lab Safety Features: Heat-resistant gloves, insulated equipment and piping, temperature monitoring devices, thermal guards, warning signs, and emergency shutdown arrangements.
5	Workshop & Manufacturing Lab. (Machine Shop, Welding Shop, Carpentry Shop)	a) Basic Safety Features: Fire extinguishers, first-aid facility, emergency exits, safety signage, proper ventilation, electrical safety arrangements, and housekeeping. b) Lab Safety Features: PPE including safety shoes, gloves, goggles, helmets, welding shields and aprons; machine guards, emergency stops, welding screens, and safe material-handling arrangements.

6	CAD/CAM Lab.	a) Basic Safety Features: Fire extinguishers, first-aid facility, proper electrical wiring, MCB protection, earthing, UPS backup, ventilation, safety signage, and housekeeping. b) Lab Safety Features: Computer and CNC equipment protection, machine guards, emergency stop switches, electrical protection, proper cable management, and safe operating procedures.
7	Computational Lab.	a) Basic Safety Features: Fire extinguishers, first-aid facility, proper electrical wiring, MCB protection, earthing, UPS backup, ventilation, safety signage, and housekeeping. b) Lab Safety Features: CAD/CAM and CNC interface equipment with electrical protection, proper cable management, equipment guarding, emergency shutdown arrangements, and safe operating procedures.
8	Engineering Metallurgy Lab.	a) Basic Safety Features: Fire extinguishers, first-aid facility, safety signage, proper electrical wiring and earthing, ventilation, and housekeeping. b) Lab Safety Features: Heat-resistant gloves, tongs, face shields, furnace safety systems, insulated surfaces, temperature monitoring, and ventilation for high-temperature operations.
9	Thermodynamics Lab.	a) Basic Safety Features: Fire extinguishers, first-aid facility, safety signage, proper electrical wiring and earthing, ventilation, and emergency shutdown arrangements. b) Lab Safety Features: Pressure relief valves, insulated piping, heat-resistant gloves, temperature and pressure monitoring devices, insulated surfaces, and emergency shutdown systems.
10	I. C. Engine Lab.	a) Basic Safety Features: Fire extinguishers, first-aid facility, safety signage, proper electrical wiring and earthing, ventilation, and emergency shutdown facilities. b) Lab Safety Features: Exhaust ventilation, fuel storage and handling safety, heat-resistant gloves, engine guards, emergency stop switches, and fire protection systems.
11	Basic Mechanical Engineering Lab.	a) Basic Safety Features: Fire extinguishers, first-aid facility, safety signage, proper electrical wiring and earthing, ventilation, and housekeeping. b) Lab Safety Features: Machine safety guards, electrical safety provisions, emergency shutdown systems, PPE, safe material handling, and appropriate operating procedures.
12	Drawing Hall (Total 3)	a) Basic Safety Features: Fire extinguishers, first-aid facilities, safe electrical wiring with proper earthing, adequate lighting and ventilation, clear gangways, safety signage, and housekeeping. b) Lab Safety Features: Proper arrangement of drawing tables and equipment, safe storage of instruments, adequate workspace, unobstructed movement areas, ergonomic seating, and regular inspection of electrical and furniture facilities.

D3. Project Laboratory/Research Laboratory

Table No. 7.5: List of Project laboratory/research Laboratory/Center of Excellence

Sr. No.	Project Laboratory / Research Laboratory / Centre of Excellence	Major Activities
1	Solar Research Center	Development of solar vehicles, electric vehicles, energy systems and other sponsored research projects
2	Automotive & Electric Vehicle Project Laboratory	Design, fabrication, assembly, testing and development of automotive, electric and solar vehicle projects.
3	Areospace and Drone Project Laboratory	Design, fabrication, programming, testing and development of RC aircraft, UAVs, drones and VTOL systems

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)	540	27	13	7	44
2024-25(CAYm1)	540	27	15	7	50
2025-26(CAY)	540	27	19	7	61

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

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

Items	Budgeted in 2025-26	Actual Expenses in 2025-26 till	Budgeted in 2024-25	Actual Expenses in 2024-25 till	Budgeted in 2023-24	Actual Expenses in 2023-24 till	Budgeted in 2022-23	Actual Expenses in 2022-23 till
Infrastructure Built-Up	44396000	29243550	24292000	14857138	68719000	59469871	24814000	18779528
Library	660000	12535	750000	387101	785000	300059	1000000	302080
Laboratory equipment	23847000	960438	18686000	2500361	20155000	15520993	20189000	16473208
Teaching and non-teaching staff salary	184155000	194811273	163346000	157441427	128516000	153093586	112404000	120984638

Outreach Programs	1186000	1420298	1430000	1682194	1338000	1742393	1112000	1688446
R&D	3970000	6276330	2839000	7226737	2458000	5163598	1796000	3663333
Training, Placement and Industry linkage	2430000	2339801	2430000	1000067	2480000	935538	2374000	2824714
SDGs	3500000	3342544	2500000	2316422	1500000	1524302	2500000	2525711
Entrepreneurship	600000	519948	600000	553860	50000	36642	50000	68218
Other Secify	40167000	30959517	33584000	25318398	43581000	37734958	26806000	34183335
Total	304911000	269886234	250457000	213283705	269582000	275521940	193045000	201493211

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

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

Items	Budgeted in 2025-26	Actual Expenses in 2025-26 till	Budgeted in 2024-25	Actual Expenses in 2024-25 till	Budgeted in 2023-24	Actual Expenses in 2023-24 till	Budgeted in 2022-23	Actual Expenses in 2022-23 till
Laboratory equipment	7516500	521675	6819500	1187516	3027500	1615949	1765000	1792538
Software	600000	80280	121240	200600	249000	48982	221000	0
SDGs	500000	441671	500000	592307	500000	371959	500000	755461
Support for faculty development	400000	1430769	700000	1340556	380000	434190	817000	984208
R & D	1500000	1638346	820000	2716532	800000	930158	296000	305552
Industrial Training, Industry expert, Internship	2000000	1177688	1133000	1722162	1150000	1449852	837000	646483
Laboratory Repairs and Consumables	360000	173392	171000	30115	130000	101143	262000	144009
Total	12876500	5463821	10264740	7789788	6236500	4952233	4698000	4628251