

NATIONAL BOARD OF ACCREDITATION

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

PART-A: Profile of the Institute

Name of the Program Applied for: Mechanical Engineering Department

A1: 1. Name of the Institute: Sharad Institute of Technology, College of Engineering, Yadrav (Ichalkaranji)
Year of Establishment: 2009 Location of the Institute:

A2: Institute Address: - Near Onkareshwar Mandir, Yadrav (Ichalkaranji)
Tal-Shirol, Dist-Kolhapur
Maharashtra India
City: Yadrav (Ichalkaranji) State: Maharashtra
PinCode:416121 Website: www.sitcoe.ac.in
E-mail: contact@sitcoe.org.in Phone No. (with STD Code):02322253001/18

A3: Name and Address of the Affiliating University (If any): -

Name of the University: Dr. Babasaheb Ambedkar Technological University. Lonere, Tal-Mangaon, Dist- Raigad, Maharashtra (India).402103
City: Lonere
State: Maharashtra
Pin Code: 402103

A4: Type of the Institution :-(Tick the applicable choice)

Institute of National Importance	☐	Deemed University	☐
University	☐	Autonomous	☒
Non-Autonomous (Affiliated)	☐	Any Other (Please Specify)*	☐

***Provide Details: - N.F.22-1/2017 (AC) Dated- 22-December-20**

A5: Ownership Status :-(Tick the applicable choice)

Central Government	☐	State Government	☐
Government Aided	☐	Self-financing	☒
Any Other (Please specify) *	☐		



A6: Details of all Programs being Offered by the Institution: -❖ No. of UG programs: 08❖ No. of PG programs: 02**TableNo.A6.1:** List of all programs offered by the Institute.

S.N.	Level of program (UG/PG)	Name of the program	Year of Start	Year of close*	Name of the Department
1	UG	Mechanical Engineering	2009	-	Mechanical Engineering
2	UG	Civil Engineering	2009	-	Civil Engineering
3	UG	Electrical Engineering	2010	-	Electrical Engineering
4	UG	Electronics and Computer Engineering	2021	-	Electronics and Computer Engineering
5	UG	Computer Science Engineering	2009	-	Computer Science Engineering
6	UG	Artificial Intelligence and Data Science	2020	-	Artificial Intelligence and Data Science
7	UG	Mechatronics Engineering	2020	-	Mechatronics Engineering
8	UG	Automation and Robotics	2021	-	Automation and Robotics
9	PG	Artificial Intelligence and Data Science (PG)	2021	-	Artificial Intelligence and Data Science (PG)
10	PG	Mechatronics Engineering (PG)	2021	-	Mechatronics Engineering (PG)

A7: Programs to be considered for Accreditation vide this Application:**TableNo.A7.1:** List of programs to be considered for accreditation

Cluster ID.	Name of the Department	Name of the Program
1.	Mechanical Engineering	Mechanical Engineering

TableNo.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)
1.	---	---



PART-B: Program information

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

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

TableNo.B1: Program details.

S. N.	Program Name	Year of start	Sanctioned Intake	Increase/decrease in intake, if any	Year of increase/decrease	AICTE Approval Details	Accreditation Status*	No. of times program accredited
1.	Mechanical Engineering	2009	60	Yes	2021	F.No:Western /1-9321102721/2021/EOA	Granted accreditation for 3 years for the period	2

*Write applicable one:

- ❖ Granted accreditation for 2/3 years for the period (specify period): June 2022 to June 2025

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

A. Name of the HoD: Dr Sagar D. Patil

B. Nature of appointment: (Tick the applicable choice)

- ❖ Regular ☒
- ❖ Contract ☐
- ❖ Adhoc ☐

C. Qualification: (Tick the applicable choice)

- ❖ Ph.D. ☒
- ❖ ME/M.Tech ☐
- ❖ Any Other ☐

**Please provide details: University: Savitribai Phule Pune University, Pune
Year of Passing: 15.01.2021**



B3: Program Details

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

Item (Information is to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	CAY 2024-25	CAYm1 2023-24	CAY m2 2022- 23	CAYm3 2021-22	CAY m4 (LY G) 2020-21	CAY m5 (LY Gm1) 2019- 20	CAY m6 (LYG m2) 2018- 19
N= Sanctioned intake of the program (as per AICTE /Competent authority)	60	60	60	60	120	180	120
N1=Total no. of students admitted in the 1 st year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program	60	17	41	23	25	31	70
N2= Number of students admitted in 2 nd year in the same batch via lateral entry including leftover seats	-	52	29	36	92	134	64
N3= Separate division if any	NIL	NIL	NIL	NIL	NIL	NIL	NIL
N4= Total no. of students admitted in the 1 st year via all supernumerary quotas	06	09+02	05+02	05+01	10+08	04+04	06+02
Total number of students admitted in the program (N1+N2+N3+N4)-excluding those admitted through Multiple entry and exit points.	66	80	77	65	135	173	142



B4: Enrolment Ratio in the First Year**Table No. B4.1:** Student enrolment ratio in the 1st year.

Item (Students enrolled in the First Year on average over 3 academic years (CAY, CAYm1 and CAYm2))	CAY	CAYm1	CAYm2
N= Sanctioned intake of the program in the 1 st year (as per AICTE/Competent authority)	60	60	60
N1=Total no. of students admitted in the 1 st year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program	60	17	41
N4=Total no. of students admitted in the 1 st year via all supernumerary quotas	06	09	05
Enrolment Ratio (ER)=(N1+N4)/N	1.1	0.43	0.77
Average ER=(ER_1+ER_2+ER_3)/3	0.77		

B5: Success Rate of the Students in the Stipulated Period of the Program**Table No. B5.1:** The success rate in the stipulated period of a program.

Item	LYG	LYGm1	LYGm2
A*= (No. of students admitted in the 1 st year of that batch and those actually admitted in the 2 nd 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).	135	173	142
B=No. of students who graduated from the program in the stipulated course duration	71	94	85
Success Rate(SR)=(B/A)* 100	52.59	54.33	59.86
Average SR of three batches((SR_1+SR_2+ SR_3)/3)	55.59		

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



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

Academic Performance	CAYm1	CAYm2	CAYm3
$X = (\text{Mean of 1}^{\text{st}} \text{ year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 1}^{\text{st}} \text{ year}/10)$	6.77	6.12	5.4
$Y = \text{Total no. of successful students}$	21	41	25
$Z = \text{Total no. of students appeared in the examination}$	26	46	28
$API = X * (Y/Z)$	5.47	5.45	4.82
Average API = $(AP1 + AP2 + AP3)/3$	5.25		

B7: Academic Performance of the Second Year Students of the Program**TableNo.B7.1:** Academic Performance of the Second Year Students of the Program.

Academic Performance	CAYm1	CAYm2	CAYm3
$X = (\text{Mean of 2}^{\text{nd}} \text{ year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 2}^{\text{rd}} \text{ year}/10)$	6.17	6.38	6.81
$Y = \text{Total no. of successful students}$	61	58	121
$Z = \text{Total no. of students appeared in the examination}$	68	60	130
$API = X * (Y/Z)$	5.53	6.17	6.34
Average API = $(AP1 + AP2 + AP3)/3$	6.01		



B8: Academic Performance of the Third Year Students of the Program**TableNo.B8.1:** Academic Performance of the Third Year Students of the Program

Academic Performance	CAYm1	CAYm2	CAYm3
$X = (\text{Mean of 3}^{\text{rd}} \text{ year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 3}^{\text{rd}} \text{ year}/10)$	6.47	6.66	7.58
$Y = \text{Total no. of successful students}$	49	112	128
$Z = \text{Total no. of students appeared in the examination}$	55	117	164
$API = X * (Y/Z)$	5.76	6.38	5.92
Average API $= (AP1 + AP2 + AP3)/3$	6.02		

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

Item	LYG	LYGm1	LYGm2
$FS^* = \text{Total no. of final year students}$	112	168	147
$X = \text{No. of students placed}$	80	127	139
$Y = \text{No. of students admitted to higher studies}$	0	2	1
$Z = \text{No. of students taking up entrepreneurship}$	1	0	1
$X + Y + Z =$	82	129	141
$\text{Placement Index}(P) = ((X + Y + Z)/FS) * 100$	73.21	76.78	95.91
Average placement index $= (P_1 + P_2 + P_3)/3$	81.96		

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



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

2024-25

S.N.	Name of the Faculty	PAN No.	APAR Faculty ID*(if any)	Highest degree	University	Area of Specialization	Date of Joining In this Institution	Experience in years in current institute	Designation at Time Joining in this Institution	Present Designation	The date on which Designated as Professor/Associate Professor if any	Nature of Association (Regular/Contract/Ad hoc)	If contractual mention Full time or Part time or hourly based)	Currently Associated(Y/N)	Date of Leaving if any(Incase Currently Associated is "No")
1	Dr. S A Khot	ABIPK8716C		PhD	Shivaji University	Heat Power Engineering	01/09/2012	13	Principal	Principal	01/09/2012	Regular	--	Yes	
2	Dr. P M Bhagwat	ABGPB5636G		PhD	Mewar University	Composite Materials	01/10/2018	7	Associate Professor	Associate Professor	01/10/2018	Regular	--	Yes	
3	Dr. V VPatil	BBWPP3809G		PhD	BITS, Pilani	Heat Power Engineering	26/07/2010	15	Assistant Professor	Associate Professor	19/12/2019	Regular	--	Yes	
4	Dr.S D Patil	BGPPP3895L		PhD	Pune University	Composite Materials	01/06/2013	12	Assistant Professor	Associate Professor	15/01/2021	Regular	--	Yes	
5	Dr.M M Khade	BDDPK2065A		PhD	Shivaji University	Design Engineering	17/07/2013	12	Assistant Professor	Associate Professor	01/07/2024	Regular	--	Yes	
6	Dr. S SPatil	BUTPP5420K		PhD	Pune University	Design Engineering	20/06/2015	10	Assistant Professor	Associate Professor	01/07/2024	Regular	--	Yes	
7	Dr. P A Bajakke	BFNPB3627M		PhD	VTU	Material Science	07/07/2024	0.5	Assistant Professor	Assistant Professor		Regular	--	Yes	
8	Mr.S M	AMLPG4375M		ME	Shivaji	CAD/CAM/CAPP	01/06/2012	13	Assistant	Assistant		Regular	--	Yes	



	Ghanvat				University					Professor	Professor					
9	Mr. ASN Husainy	AGPPH9062G	ME		Shivaji University	Heat Power Engineering	10/7/2012	13	Assistant Professor	Assistant Professor	Regular	--	Yes			
10	Dr. B B Sangame	CIBPS1231E	PhD		Pune University	Material Science & Manufacturing	2/6/2014	11	Assistant Professor	Assistant Professor	Regular	--	Yes			
11	Mr. S P Udgave	ACGPU4860Q	ME		Shivaji University	Product Design and Development	02/06/2014	10	Assistant Professor	Assistant Professor	Regular	--	Yes			
12	Mr. S B Kamble	CLLPK0914K	M.TECH		Shivaji University	Production Engineering	28/05/2018	6	Assistant Professor	Assistant Professor	Regular	--	Yes			
13	Mrs. V S Patil	DLOPP0471E	ME		Shivaji University	Design Engineering	1/2/2017	8	Assistant Professor	Assistant Professor	Regular	--	Yes			
14	Mrs. A A Zalake	AAYPZ9630M	ME		Shivaji University	Machine Design	10/12/2018	6	Assistant Professor	Assistant Professor	Regular	--	Yes			



S.N.	Name of the Faculty	PAN No.	APAR faculty ID*(if any)	Highest degree	University	Area of Specialization	Date of Joining In this Institution	Experience in years in current institute	Designation at Time Joining in this Institution	Present Designation	The date on which Designated as Professor/Associate Professor if any	Nature of Association (Regular/Contract/Ad hoc)	If contractual mention Full time or Part time or hourly based)	Currently Associated(Y/N)	Date of Leaving if any(Incase Currently Associated is "No")
1	Dr. S A Khot	ABIPK8716C		PhD	Shivaji University	Heat Power Engineering	01/09/2012	12	Principal	Principal	01/09/2012	Regular	--	Yes	
2	Dr. P M Bhagwat	ABGPB5636G		PhD	Mewar University	Composite Materials	01/10/2018	06	Assistant Professor	Associate Professor	01/10/2018	Regular	--	Yes	
3	Dr. A M Takale	AHDPT3021A		PhD	Pune University	Product Design and Development	01/06/2013	11	Assistant Professor	Associate Professor	01/07/2019	Regular	--	No	15.11.2024
4	Dr. V VPatil	BBWPP3809G		PhD	BITS, Pilani	Heat Power Engineering	26/07/2010	14	Assistant Professor	Associate Professor	19/12/2019	Regular	--	Yes	
5	Dr. S D Patil	BGPPP3895L		PhD	Pune University	CAD/CAM/CAE	01/06/2013	11	Assistant Professor	Associate Professor	15/01/2021	Regular	--	Yes	
6	Dr. M M Khade	BDDPK2065A		PhD	Shivaji University	Design Engineering	17/07/2013	11	Assistant Professor	Assistant Professor		Regular	--	Yes	
7	Dr. S SPatil	BUTPP5420K		PhD	Pune University	Design Engineering	26/06/2015	09	Assistant Professor	Assistant Professor		Regular	--	Yes	
8	Mr. S M Ghanvat	AMLPG4375M		ME	Shivaji University	CAD/CAM/CAE	01/08/2012	12	Assistant Professor	Assistant Professor		Regular	--	Yes	
9	Mr. ASN	AGPPH9062G		ME	Shivaji	Heat Power		12	Assistant	Assistant		Regular	--	Yes	



Husainy			University	Engineering			Professor					
10 Mr. U S Patil	BOMPP4059M	M. Tech	VTU, Belgaum	Engineering Analysis and Design	1/11/2012	12	Assistant Professor		Regular	--	No	05.12.2024
11 Mr. B B Sangame	CIBPS1231E	ME	Shivaji University	Product Design and Development	2/6/2014	10	Assistant Professor		Regular	--	Yes	
12 Mr. S P Udgave	ACGPU4860Q	ME	Shivaji University	Product Design and Development	02/06/2014	10	Assistant Professor		Regular	--	Yes	
13 Mr. S B Kamble	CLLPK0914K	M.TECH	Shivaji University	Production Engineering	28/05/2018	6	Assistant Professor		Regular	--	Yes	
14 Mrs. V S Patil	DLOPP0471E	ME	Shivaji University	Design Engineering	1/2/2017	8	Assistant Professor		Regular	--	Yes	



S.N.	Name of the Faculty	PAN No.	APAR Faculty ID*(if any)	Highest degree	University	Area of Specialization	Date of Joining In this Institution	Experience in years in current institute	Designation at Time Joining in this Institution	Present Designation	The date on which Designated as Professor/Associate Professor if any	Nature of Association (Regular/Contract/Ad hoc)	If contractual mention Full time or(Part time or hourly based)	Currently Associated(Y/N)	Date of Leaving if any(Incase Currently Associated is "No")
1	Dr. S A Khot	ABIPK8716C		PhD	Shivaji University	Heat Power Engineering	01/09/2012	11	Principal	Principal	01/09/2012	Regular	--	Yes	
2	Dr. P M Bhagwat	ABGPB5636G		PhD	Mewar University	Composite Materials	01/10/2018	5	Assistant Professor	Associate Professor	01/10/2018	Regular	--	Yes	
3	Dr. A M Takale	AHDPT3021A		PhD	Pune University	Product Design and Development	01/06/2013	10	Assistant Professor	Associate Professor	01/07/2019	Regular	--	No	15.11.2024
4	Dr. V V Patil	BBWPP3809G		PhD	BITS, Pilani	Heat Power Engineering	26/07/2010	13	Assistant Professor	Associate Professor	19/12/2019	Regular	--	Yes	
5	Dr. S D Patil	BGPPP3895L		PhD	Pune University	CAD/CAM/CAE	01/06/2013	10	Assistant Professor	Associate Professor	15/01/2021	Regular	--	Yes	
6	Dr. M M Khade	BDDPK2065A		PhD	Shivaji University	Design Engineering	17/07/2013	10	Assistant Professor	Assistant Professor		Regular	--	Yes	
7	Dr. S S Patil	BUTPP5420K		PhD	Pune University	Design Engineering	26/06/2015	8	Assistant Professor	Assistant Professor		Regular	--	Yes	
8	Dr. P H	AFSPY0843		PhD	SVKM'S Deemed to be University	Heat Power	01/06/2013	10	Assistant	Assistant		Regular	--	No	13.07.



Yadav	C			Vellor	Engineering			Professor				2023
9 Mr. S M Ghanvat	AMLPG4375M	ME		Shivaji University	CAD/CAM/CAE	01/06/2012	11	Assistant Professor		Regular	--	Yes
10 Mr. ASN Husainy	AGPPH9062G	ME		Shivaji University	Heat Power Engineering	10/8/2012	11	Assistant Professor		Regular	--	Yes
11 Mr. U S Patil	BOMPP4059M	M.Tech		VTU, Belgaum	Engineering Analysis and Design	1/11/2012	11	Assistant Professor		Regular	--	No 05.12.2024
12 Mr. B B Sangame	CIBPS1231E	ME		Shivaji University	Product Design and Development	2/6/2014	9	Assistant Professor		Regular	--	Yes
13 Mr. S P Udgave	ACGPU4860Q	ME		Shivaji University	Product Design and Development	02/06/2014	9	Assistant Professor		Regular	--	Yes
14 Mr. S B Kamble	CLLPK0914K	M.TECH		Shivaji University	Production Engineering	28/05/2018	5	Assistant Professor		Regular	--	Yes
15 Mrs. V S Patil	DLOPP0471E	ME		Shivaji University	Design Engineering	1/2/2017	6	Assistant Professor		Regular	--	Yes
16 Mrs. A A Zalake	AAYPZ9630M	ME		Shivaji University	Machine Design	10/12/2018	6	Assistant Professor		Regular	--	Yes
17 Mr. Sumit Gouthmachand Bardiya	AHXPB9952G	ME		Shivaji University	Heat Power Engineering	5/7/2013	10	Assistant Professor		Regular	--	No 31.10.2023



C2: Student-Faculty Ratio (SFR)**Table No. C2.1:** Student-faculty ratio.

Student	2024-25	2023-24	2022-23
UG1.B	66	66	66
UG1.C	66	66	132
UG1.D	66	132	198
UG1(UG-Engineering-Mechanical)	198	264	396
DS=Total no. of students in The Department (UG1)	198	264	396
S=Total no. of students in the Department (DS) and allied departments (AS)	198	264	396
DF=No. of faculty members in the Department	14	14	17
AF=No. of faculty members in the allied Departments	00	00	00
F=Total no. of faculty members in the Department(DF) and Allied Departments (AF)	F1=14	F2=14	F3=17
FF=The faculty members who Have a100% teaching load in the first-year courses	00	00	00
Student Faculty Ratio (SFR)=S/(F-FF)	SFR1=198/14 =14.14	SFR2=264/14 =18.85	SFR3=396/17 =23.29
Average SFR for 3years	Average SFR= (14.14+18.85+23.29)/3=18.76		

C3: Faculty Qualification**TableNo.C3.1:** Faculty qualification.

Year	X	Y	RF	FQI=2.5*[(10X+4Y)/RF]
CAY 2024-25	8	6	9.9	26.26
CAYm1 2023-24	7	7	13.2	18.56
CAYm2 2022-23	8	9	19.8	14.64
Average Assessment				19.82



C4: Faculty Cadre Proportion**TableNo.C4.1:** Faculty cadre proportion details.

Year	Professors		Associate Professors		Assistant Professors	
	Required Faculty (RF1)	Available Faculty (AF1)	Required Faculty (RF2)	Available Faculty (AF2)	Required Faculty (RF3)	Available Faculty (AF3)
CAY 2024-25	1.10	1	2.2	5	6.6	8
CAYm1 2023-24	1.46	1	2.93	4	8.8	9
CAYm2 2022-23	2.2	1	4.4	4	13.2	12
Average Numbers	RF1=1.58	AF1=1	RF2=3.17	AF2=4.33	RF3=9.53	AF3=9.66
Faculty Cadre Proportion Marks	23.11					

C5: Visiting/Adjunct Faculty/Professor of Practice**Table No.C5.1:** List of visiting/adjunct faculty/professor of practice and their teaching and practical loads.

S.N.	Name of the Person	Designation & Organization	Name of the Course	No. of hours handled
2023-24				
1	Mr. P S Telave	Proclick Technologies Pvt. Ltd.	Environmental Science	25
2	Mr. S K Kokate	Siddhanti Academy	Refrigeration and Air Conditioning	50
Total no. of hours:				75
2022-23				
1	Mr. P S Telave	Proclick Technologies Pvt. Ltd.	Industrial Safety (2 Division)	50
Total no. of hours:				50



C6: Academic Research**Table No. C6.1:** Faculty publication details.

S.N.	Item	2023-24	2022-23	2021-22
1	No. of peer reviewed journal papers published	18	23	14
2	No. of peer reviewed conference papers published	11	2	1
3	No. of books/book chapters published	15	2	2

C7: Sponsored Research Project**TableNo.C7.1:** List of sponsored research projects received from external agencies.

S.N.	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 (Lacks)
2023-24							
1	Dr. A M Takale	Nil	Mechanical	Implementing Poka-Yoka Automation for Variable Key Way Angle Laser Printing on Multi Use Components.	TATA Technology and GOSHIMA	23-24	Rs. 15000/-
2	Mr. A S N Husainy	Nil	Mechanical	Design and development of algae Bio-Panel for generating biomass, electricity and biofuel as a by-product.	TATA Technology and GOSHIMA	23-24	Rs. 15000/-
3	Mr. A S N Husainy	Nil	Mechanical	Designing & manufacturing of AAC block pushing mechanism	TATA Technology and GOSHIMA	23-24	Rs. 15000/-
4	Mr. S P Udgate	Nil	Mechanical	Experimental investigations of a PCM heat sink for electronic thermal management	TATA Technology and GOSHIMA	23-24	Rs. 15000/-
5	Mr. A S N Husainy	Nil	Mechanical	Active prosthetic ankle and adaptive equipment for bike riding in lower limb amputees	TATA Technology and GOSHIMA	23-24	Rs. 15000/-
6	Dr. A M Takale	Nil	Mechanical	Design and Development of Auto Turret, Auto Focus using AI for Micro-Vickers hardness	TATA Technology and GOSHIMA	23-24	Rs. 15000/-



				Tester			
7	Dr. S SPatil	Nil	Mechanical	Design and Development of a Mechanism for Pre-processing of Resins	TATA Technology and GOSHIMA	23-24	Rs. 15000/-
8	Mr. S P Udgave	Nil	Mechanical	Design & Development of Self Cleaning Mechanism for Membrane by using Ultrasonic and Vibrating Mechanism to Reduce Fouling	TATA Technology and GOSHIMA	23-24	Rs. 15000/-
9	Dr. S D Patil	Nil	Mechanical	Battery Thermal Management System Using Thermoelectric Generator	TATA Technology and GOSHIMA	23-24	Rs. 15000/-
10	Mr. A S N Husainy	Nil	Mechanical	Performance improvement of novel hybrid (solar + heat pump) assisted systems by using nano-particles.	ISHRAE	23-24	Rs.47000/-
11	Mr. A S N Husainy	Nil	Mechanical	Analyze and optimize the refrigeration system using machine learning algorithms.	ISHRAE	23-24	Rs.46000/-
12	Mr. A S N Husainy	Nil	Mechanical	Thermal management of electronic components by incorporation of phase change material: A need of HVAC.	ISHRAE	23-24	Rs.43500/-
13	Mr. A S N Husainy	Nil	Mechanical	Design and Development of smart algae bio panel for improving the IAQ of the railway rail stock Air conditioning	ISHRAE	23-24	Rs. 75000/-
Amount received (Rs.)							Rs. 3,46,500
2022-23							
1	Mr. S P Udgave	Nil	Mechanical	Seam welding wheel electronic metering of covered length by using metering and conversion on electronic meter	TATA Technology and GOSHIMA	22-23	Rs. 15000/-



2	Dr. A M Takale	Nil	Mechanical	Automatic Tool Pocket Gluing and Numbering On Drum Type Automatic Tool Changer used in vertical machining center (VMC)	TATA Technology and GOSHIMA	22-23	Rs. 15000/-
3	Ms. V S Patil	Nil	Mechanical	Design and Development of Prototype for Fruits and vegetables for Increasing their shelf life by using IOT based Hydro cooling Technology	TATA Technology and GOSHIMA	22-23	Rs. 15000/-
4	Mr. S P Udgate	Nil	Mechanical	Tool condition monitoring of WEDM through vision system	TATA Technology and GOSHIMA	22-23	Rs. 15000/-
5	Mr. S M Ghanvat	Nil	Mechanical	3D Reconstruction of Anatomical Structures from 2D X-ray Images	TATA Technology and GOSHIMA	22-23	Rs. 15000/-
6	Dr. S D Patil	Nil	Mechanical	Automatic Moisture Control system for Vermicomposting Beds	TATA Technology and GOSHIMA	22-23	Rs. 15000/-
7	Mr. P H Yadav	Nil	Mechanical	Development Eco-friendly E- Waste Composite Using Glass Fiber	TATA Technology and GOSHIMA	22-23	Rs. 15000/-
8	Mr. S P Udgate	Nil	Mechanical	Design and Development of Solar Assisted Thermoelectric Refrigeration system for Vaccine Storage by using Solar Energy	TATA Technology and GOSHIMA	22-23	Rs. 15000/-
9	Mr. P H Yadav	Nil	Mechanical	Fabrication and characterisation of hybrid composite using Natural fiber and E-Waste material	TATA Technology and GOSHIMA	22-23	Rs. 15000/-
10	Ms. A AZalake	Nil	Mechanical	Design and Development of automatic shots separating machine for foundry	TATA Technology and GOSHIMA	22-23	Rs. 15000/-



11	Mr. S P Udgave	Nil	Mechanical	Design and Development of Bed for Bedridden Patients	TATA Technology and GOSHIMA	22-23	Rs. 15000/-
12	Mr. S G Bardiya	Nil	Mechanical	Recycling Utilization of Waste Plastic	TATA Technology and GOSHIMA	22-23	Rs. 15000/-
13	Mr. A S N Husainy	Nil	Mechanical	Accelerator program funded amount on title Retrofit of Paralympic wheelchair to reduce pressure ulcers by application of heat pipe	TATA Technology and GOSHIMA	22-23	Rs. 50000/-
14	Mr. A S N Husainy	Nil	Mechanical	Retrofitting of Wheelchair for Sports person	National Level HVAC and Hackathon	22-23	Rs. 25000/-
15	Mr. A S N Husainy	Nil	Mechanical	Smart wheel chair	Smart India Hackathon-2022	22-23	Rs. 75000/-
Amount received (Rs.)							Rs.330000/-
2021-22							
1	Mr. A S N Husainy	Nil	Mechanical	Accelerator program funded amount on title IOT based vaccine storage system	TATA Technology and GOSHIMA	21-22	Rs. 50000/-
2	Mr. A S N Husainy	Nil	Mechanical	Design and Development of IOT based efficient vaccine storage and transportation system using PCM	IEEE Mumbai Chapter	21-22	Rs. 32500/-
Amount received (Rs.)							82500/-
Total Amount (Lacs) Received for the Past 3 Years							7,59,000/-



C8: Consultancy Work**TableNo.C8.1:** List of consultancy projects received from external agencies.

S.N.	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 (Lacks)
2023-24							
1	Dr. S D Patil	---	Mechanical	Roti Machine development consulting charges	Blue star automobile, Ichalkaranji	2 months	55000/-
2	Dr. S SPatil	---	Mechanical	Mini flower kneader development consulting charges	Blue star automobile, Ichalkaranji	2 months	45000/-
3	Dr. A M Takale	---	Mechanical	Hydraulic fixture design for Bellow Housing	Shreeved Cad Solution	1 month	30000/-
4	Mr. S M Ghanvat	---	Mechanical	Hydraulic fixture design for brake drum	Shreeved Cad Solution	1 month	34000/-
5	Ms. V S Patil	---	Mechanical	Hydraulic fixture design for carrier	ShreevedCad Solution	1 month	36000/-
6	Mr. B BSangame	---	Mechanical	Casting simulation for angle plate 20130	S M Industries, Agar	1 month	52000/-
7	Dr. P M Bhagwat	---	Mechanical	Casting simulation for FA5	S M Industries, Agar	1 month	48000/-
Amount received (Rs.)							300000/-
2022-23							
1	Dr. A M Takale	---	Mechanical	Hydraulic fixture design for Injector Clamp	Shreeved Cad Solution	1 month	35000/-
2	Dr. S D Patil	---	Mechanical	Hydraulic fixture design for Bellow Housing	Shreeved Cad Solution	1 month	33000/-
3	Dr. P H Yadav	---	Mechanical	Hydraulic fixture design for TG Case	Shreeved Cad Solution	1 month	32000/-
4	Mr. B B Sangame	---	Mechanical	Casting simulation for swell housing LH	Techno craft Engineering	1 month	52000/-
5	Mr. V B	---	Mechanical	Casting simulation	Technocraft	1 month	45000/-



	Nalawade			for Mainfold FDD	Engineering		
6	Mr. U S Patil	---	Mechanical	Casting simulation for A129 housing	Technocraft Engineering	1 month	56000/-
7	Mr. S P Udgave	---	Mechanical	Casting simulation for front cover transmission	Technocraft Engineering	1 month	47000/-
Amount received (Rs.)							300000/-
2021-22							
1	Dr. M M Khade	----	Mechanical	Energy Audit	Ajara Nagar Panchayat	15 days	20000/-
2	Dr. M M Khade	----	Mechanical	Energy Audit	Gadhinglaj Nagar Parishad	15 days	50000/-
3	Dr. M M Khade	----	Mechanical	Energy Audit	Chandgad Nagar Panchayat	15 days	25000/-
4	Dr. M M Khade	----	Mechanical	Energy Audit	Hupari Nagar Parishad	15 days	25000/-
5	Dr. M M Khade	----	Mechanical	Energy Audit	Ichalkaranji Nagarpalika	15 days	105000/-
6	Dr. M M Khade	----	Mechanical	Energy Audit	Jaysingpur Nagar Parishad	15 days	40000/-
7	Dr. M M Khade	----	Mechanical	Energy Audit	Kagal Nagar Parishad	15 days	45000/-
8	Dr. M M Khade	----	Mechanical	Energy Audit	Kurundwad Nagar Parishad		30000/-
9	Dr. M M Khade	----	Mechanical	Energy Audit	Malakapur Nagar Parishad		25000/-
10	Dr. M M Khade	----	Mechanical	Energy Audit	Murgud Nagar Parishad		35000/-
11	Dr. M M Khade	----	Mechanical	Energy Audit	Panhala Nagar Parishad		40000/-
12	Dr. M M Khade	----	Mechanical	Energy Audit	Shirol Nagar Parishad		25000/-
13	Dr. M M Khade	----	Mechanical	Energy Audit	Vadgaon Nagar Parishad		55000/-
14	Dr. M M Khade	----	Mechanical	Energy Audit	Hatkanangale Nagar Parishad		25000/-



15	Dr. M M Khade	----	Mechanical	Energy Audit	Ashta Nagar Parishad	35000/-
16	Dr. M M Khade	----	Mechanical	Energy Audit	Jat Nagar Parishad	30000/-
17	Dr. M M Khade	----	Mechanical	Energy Audit	Palus Nagar Parishad	30000/-
18	Dr. M M Khade	----	Mechanical	Energy Audit	Shirala Nagar Parishad	20000/-
19	Dr. M M Khade	----	Mechanical	Energy Audit	Vita Nagar Parishad	40000/-
20	Dr. M M Khade	----	Mechanical	Energy Audit	Krantiagrani J. Bapu Lad College	15000/-
21	Dr. M M Khade	----	Mechanical	Energy Audit	Mohanrao Sahakari Sakhar Karkhana	50000/-
22	Dr. M M Khade	----	Mechanical	Energy Audit	Sharad Sahakari Sakhar Karkhana	185000/-
23	Dr. A M Takale	----	Mechanical	Material Testing	Sharad Sahakari Sakhar Karkhana	10700/-
Amount received (Rs.)						9,60,700/-
Total amount (Lacks) received for the past 3 years						15,60,700/-



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

TableNo.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
23-24						
1	Nil	Nil	Nil	Nil	Nil	Nil
Amount received (Rs.)						
22-23						
1	Nil	Nil	Nil	Nil	Nil	Nil
Amount received (Rs.)						
21-22						
1	Nil	Nil	Nil	Nil	Nil	Nil
Amount received (Rs.)						
Total amount (Lacks) received for the past 3 years						

PART-D: Laboratory Infrastructure in the Department

(Data to be filled in for the Department).

D1: Adequate and Well-Equipped Laboratories, and Technical Manpower

TableNo.D1.1: List of laboratories and technical man power.

Sr. No.	Name of the Laboratory	No. of students per setup (Batch Size)	Name of the Important equipment	Weekly utilization n status (all the courses for which the lab is utilized)	Technical Manpower support		
					Name of the technical staff	Designation	Qualification
1	Engineering Thermodynamics Lab (23ME2304)	Max. up to 25	1. Separating and throttling calorimeter 2. Flue gas analyzer 3. Steam boiler 4. Steam nozzle 5. steam condenser 6. Bomb Calorimeter	SE MECH [6Hr]	Mr. M. B. Nakkarchi	Technical Assistant	DME



2	Analysis of Mechanical Elements (23ME2305)	Max. up to 25	1. Universal Testing Machine 2. Torsional testing machine 3. Thermal stress measurement 4. Izod Charpy testing Machine	SE MECH [6Hr]	Mr. B M Choudhary	Technical Assistant	DME
3	Machine Drawing and CAD Lab (23ME2306)	Max. up to 25	1. 25 computers 2. AutoCAD software 3. Printer	SE MECH [6Hr]	Mr. A J Chougule	Technical Assistant	DME
4	Kinematics of Machines (23ME2404)	Max. up to 25	1. Links Models 2. Measurement of Slip 3. Epicyclic Gear Train	SE MECH [6Hr]	Mr. B M Choudhary	Technical Assistant	DME
5	Numerical Methods (23ME2405)	Max. up to 25	1. 25 computers 2. C, C++, MATLAB software 3. Printer	SE MECH [6Hr]	Mr. Rohan Kulkarni	Technical Assistant	B.Com, Interior Designer.
6	Fluid Mechanics and Hydraulic Machine (23ME2202)	Max. up to 25	1. Minor Losses In Pipe Fittings Apparatus 2. Bernoulli's Theorem Apparatus 3. Venturi meters / Orifice Apparatus 4. Pelton / Francis turbine 5. Centrifugal / Reciprocating Pump 6. Centrifugal Blower 7. Hydraulic ram System Apparatus	SE MECH [6Hr]	Mr. M. B. Nakkarchi	Technical Assistant	DME
7	Heat Transfer (ME505)	Max. up to 25	1. Thermal Conductivity of Insulating Powder 2. Emissivity Apparatus 3. Stefan Boltzmann Apparatus 4. Heat Exchanger 5. Natural	TE MECH [6Hr]	Mr. M. B. Nakkarchi	Technical Assistant	DME



			Convection Apparatus 6.Forced convection Apparatus 7.Critical Heat Flux (Pool Boiling) 8.Thermal Conductivity of Composite Wall 9.Heat Pipe 10.Thermal Conductivity of lagged pipe 11. Thermal Conductivity of Metal Rod				
8	Metrology & Quality Control (ME507)	Max. up to 25	1.Sine Bar 2. Optical Flat 3.Slip Gauge Box 4.Vernier Caliper 5.Micrometer 6.Vernier Height Gauge 7.Depth Gauge 8.Dial Gauge 9.Gear Tooth Vernier Caliper 10.Universal Bevel Protector 11.Floating Carriage Micrometer	TE MECH [6Hr]	Mr. B M Choudhary	Technical Assistant	DME
9	Turbo Machinery (ME508)	Max. up to 25	1.Pelton Turbine Test Rig 2. Centrifugal Pump Test Rig. 3. Centrifugal Blower Test Rig. 4. Francis Turbine Test Rig	TE MECH [6Hr]	Mr. B M Choudhary	Technical Assistant	DME
10	Automobile Engineering (ME509)	Max. up to 25	1. Single plate clutch model 2. Diaphragm Plate clutch model 3. Rack & Pinion Steering gear	TE MECH [6Hr]	Mr. A J Chougule	Technical Assistant	DME



			mechanism 4. Synchromesh Gear box 5. Differential Mechanism 6. Chassis layout working model				
11	Internal combustion Engine and Hybrid Vehicles(ME605)	Max. up to 25	1. Computerized, Variable Compression ratio, Single Cylinder Diesel Engine with eddy current dynamometer. 2. Muticylinder MPFI petrol engine. 3. Dismantling & Assembly setup of 4 stroke 4 cylinder MPFI Petrol engine 4. Dismantling & Assembly setup of 4 stroke 4 cylinder CRDi Engine	TE MECH [6Hr]	Mr. M. B. Nakkarchi	Technical Assistant	DME
12	CAD/CAM Laboratory (ME608)	Max. up to 25	25 Computers, Printer, Soft wares 1.Solidworks 2.AutoCAD 3.ANSYS 21R1	TE MECH [6Hr]	Mr. RohanKulkarni	Technical Assistant	B.Com, Interior Designer.
13	Refrigeration & Air Conditioning (ME705)	Max. up to 25	1.Ice Plant 2.Duct type Air Conditioning 3.Refrigeration Tutor 4.Heat Pump 5.Vapour Absorption System	BE MECH [6Hr]	Mr. M. B. Nakkarchi	Technical Assistant	DME
14	Simulation Lab(ME707)	Max. up to 25	1 Solid works 2.ANSYS 3.AUTOCAD	BE MECH [6Hr]	Mr. RohanKulkarni	Technical Assistant	B.Com, Interior Designer.
15.	Workshop	Max. up to 25	1.Wood Turning Lathe 2. Lathe Machine (40 centre& 2 All	SE MECH & TE MECH	Mr. P.D.Koli Mr. S. B.	Technical Assistants	ITI (Fitter) NCTVT, ITI(Welder)



		geared) 3. Hacksaw Cutting Machine 4. Bench Grinder 5. Drilling Machine 6. Milling Machine 7. Welding Machine 8. Shaping Machine 9. Surface Grinding Machine 10. Black Smithy shop, Tools and Vices		Pujari, Mr. P. S. Sawant Mr. Sharad Koli		NCTVT, ITI (Machinist) NCTVT. ITI (Plumbing)
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D2: Safety Measures in Laboratories

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

Sr. No.	Name of the Laboratory	Safety measures
1	Workshop	Helmets, Glasses, Hand gloves, Shoes are compulsory while coming for practical. Safety instruction charts, safety symbols related to electrical hazards. Fire Extinguishers, sand buckets, first aid box.
2	Fluid Mechanics and Hydraulic Machine	Safety instruction charts, safety symbols related to electrical hazards.
3	Engineering Thermodynamics Lab	Safety instruction charts, safety symbols related to fire hazards.
4	Turbo Machinery	Safety instruction charts, safety symbols related to electrical hazards.
5	CAD/CAM Laboratory	Safety instruction charts, safety symbols related to electrical hazards.
6	Heat Transfer	Safety instruction charts, safety symbols related to electrical and fire hazards.
7	Kinematics of machines	Safety instruction charts,
8	Metrology & Quality Control	Safety instruction charts,
9	Internal Combustion Engine and Hybrid Vehicle	Fire Extinguishers, Safety instruction charts, sand buckets, first aid box
10	Automobile Engineering	Fire Extinguishers, Safety instruction charts, sand buckets, first aid box
11	Refrigeration & Air Conditioning	Safety instruction charts

D3: Project Laboratory/ Research Laboratory

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

Sr. No.	Name of the Laboratory
1	Autodesk Lab
2	TATA Technologies – RE Lab
3	Project Lab



PARTE: 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: FY SFR 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
2024-25	690	34.5	22	22.25	$((22*0.8)+(22.25*0.2))/34.5$ $=(17.6+4.45)/34.5=22.05/34.5=63.9$ 1%
2023-24	660	33	22.5	17.75	$((22.5*0.8)+(17.75*0.2))/33$ $=(18+3.55)/33=21.55/33=65.30\%$
2022-23	660	33	20	15.25	$((20*0.8)+(15.25*0.2))/33$ $=(16+3.05)/33=19.45/33=57.72\%$
Average Percentage					62.31%



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

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

Items	Budgeted in CFY 21-22	Actual expenses in CFY 21-22	Budgeted in CFY 22-23	Actual expenses in CFY 22-23	Budgeted in CFY 23-24	Actual expenses in CFY 23-24	Budgeted in CFY 24-25	Unaudited Actual expenses in CFY 24-25	Budgeted in CFY 25-26
Infrastructure Built-Up	0	0	0	0	0	0	0	0	0
Library	600000	434769	500000	665977	765000	322725	525000	232754	525000
Laboratory equipment	1075000	15416110	14000000	23584868	18000000	16481718	17000000	27438539	29500000
Teaching and non-teaching staff salary	137500000	93644821	111500000	100767385	111000000	109295183	110500000	118680192	128025000
Outreach Programs	70000	56217	70000	0	5000	12775	30000	12954	25000
R&D	70000	21000	25000	720812	1000000	1866522	2450000	2553916	3000000
Training, Placement and Industry linkage	3035000	994012	1088500	3790490	4695000	2659354	3160000	8327890	9115000
SDGs	125000	108291	125000	740488	950000	902568	685000	629725	750000
Entrepreneurship		65000	75000	925993	1114000	933388	1205000	1916226	2025000
Others*, pl. specify	44920000	36995847.75	45348900	72472294.93	93522382	80407969	99180000	83099271	90440000
Total amount	192795000	147736067.8	172732400	203668307.9	231051382	212882202	234735000	242891467	263405000



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

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

Items	2021-2022		2022-2023		2023-2024		2024-2025	
	Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
Laboratory Equipments	4,92,433	5,00,000			1,48,562	1,50,000	3,96,480	4,00,000
Software	17,700	20,000	6,69,250	7,00,000	17,700	20,000	17,700	20,000
SDG			39,775	40,000			63,870	50,000
Support for faculty development	1,680	5,000	69,368	80,000	2,33,044	2,10,000	50,043	70,000
R & D			79,723	80,000	2,23,000	2,00,000	1,78,500	2,00,000
Industrial Training, Industry expert, Internship	77,000	80,000	83,327	1,00,000	71,052	80,000	64,700	60,000
Miscellaneous expenses*								
Postage	8,875	10,000	31,050	30,000	9,253	10,000	4,155	5,000
DAAB/BOS	8,000	10,000	49,000	50,000	38,000	40,000	30,000	30,000
Printing	8,968	10,000	2,800	2,000	92,630	1,00,000	16,000	20,000
Consumable			1,14,719	1,00,000	29,006	30,000	26,526	30,000
Maintenance & Spares	1,99,365	2,00,000	7,596	10,000	1,22,672	1,30,000	44,950	50,000
calibration			41,234	50,000	80,358	1,00,000	80,830	1,00,000
Other Contingency Fund	18,480	20,000	96,501	1,00,000	26,000	30,000	75,000	50,000
Total	8,32,501	8,55,000	12,84,343	13,42,000	10,91,277	11,00,000	10,48,754	10,85,000




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