Data Capturing Points of the Programrams

in

MECHANICAL ENGINEERING

Submitted by

Pimpri Chinchwad Education Trust's

PIMPRI CHINCHWAD COLLEGE OF ENGINEERING

Sector 26, Pradhikaran, Nigdi, Pune- 411044
Maharashtra, India.

To

NATIONAL BOARD
or ACCREDITATION

National Board of Accreditation
New Delhi, India.

CAY 2025-26

NATIONAL BOARD OF ACCREDITATION

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

PART-A: Profile of the Institute

Name of the Program Applied for: B.Tech Mechanical Engineering

A1: Name of the Institute: - Pimpri Chinchwad College of Engineering

Year of Establishment: 1999 Location of the Institute: Pradhikaran, Nigdi, Pune

A2: Institute Address: -

City: Pune State: Maharashtra

Pin Code: 411044 Website: www.pccoepune.com

E-mail: pccoeadmin@gmail.com Phone No (with STD Code): 020 27653168

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

Name of the University: Savitribai Phule Pune University City : Pune

State: Maharashtra Pin Code: 411007

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: Autonomous status to the institute is **granted in 2020** by the University Grants Commission (**UGC**) for **ten years from 2020-2021 to 2029-2030**.

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

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

Provide Details: Pimpri Chinchwad Education Trust owns the institute. The trust was established in 1990 under the **'Bombay Public Trust Act 1950'**. The registration number is **1379-Pune Date: 18/09/1990.**

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

- No. of UG programs: 07
- No. of PG programs: 09

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

Sr. No.	Level of program (UG/PG)	Name of the program	Year of Start	Year of Close	Name of the Department
1	UG	B. Tech. Civil Engineering	2012	NA	Civil Engineering
2	UG	B. Tech. Computer Engineering	2001	NA	Computer Engineering
3	UG	B. Tech. Computer Engineering (Regional Language)	2021	NA	Computer Engineering (Regional Language)
4	UG	B. Tech. Computer Science and Engineering (Artificial Intelligence & Machine Learning)	2021	NA	Computer Science and Engineering (Artificial Intelligence & Machine Learning)
5	UG	B. Tech. Electronics and Telecommunication Engineering	1999	NA	Electronics and Telecommunication Engineering
6	UG	B. Tech. Information Technology	2001	NA	Information Technology
7	UG	B. Tech. Mechanical Engineering	1999	NA	Mechanical Engineering
8	PG	M. Tech. Artificial Intelligence and Data Science	2022	NA	Information Technology
9	PG	M. Tech. Computational Mechanics (Mechanical Engineering)	2023	NA	Mechanical Engineering
10	PG	M. Tech. Computer Engineering	2011	NA	Computer Engineering
11	PG	M. Tech. Construction Management	2019	NA	Civil Engineering
12	PG	M. Tech. Mechanical Engineering Design	2012	NA	Mechanical Engineering
13	PG	M. Tech. VLSI & Embedded Systems	2012	NA	Electronics and Telecommunication Engineering

14	PG	Masters in Computer Applications	2008	NA	Masters in Computer Applications
15	PG	M. Tech. Heat Power Engineering	2012	2023	Mechanical Engineering
16	PG	M. Tech. Information Technology	2014	2022	Information Technology

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

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

Cluster ID.	Name of the Department	Name of the Program
1	Civil Engineering	B. Tech. Civil Engineering
2	Computer Engineering	B. Tech. Computer Engineering
3	Electronics and Telecommunication Engineering	B. Tech. Electronics and Telecommunication Engineering
4	Information Technology	B. Tech. Information Technology
5	Mechanical Engineering	B. Tech. Mechanical Engineering

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)
1	Civil Engineering	--
2	Computer Engineering	• Information Technology • Computer Engineering (Regional Language) • Computer Science and Engineering (Artificial Intelligence & Machine Learning)
3	Electronics and Telecommunication Engineering	1. --
4	Information Technology	• Computer Engineering • Computer Engineering (Regional Language) • Computer Science and Engineering (Artificial Intelligence & Machine Learning)
5	Mechanical Engineering	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: -

Table No. 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	B.Tech. Mechanical Engineering	1999-2000	180	Nil	NA	F.No. Western/1-4643559408/2025 EOA dated: 04-Jan-2025	Yes Accredited	4

* Write applicable one:

- ❖ Applying first time
- ✓ ❖ **Granted accreditation for 2/3 years for the period (2022-23 to 2024-25)**
- ❖ Granted accreditation for 5/6 years for the period (specify period)
- ❖ Not accredited (specify visit dates, year).
- ❖ Withdrawn (specify visit dates, year)
- ❖ Not eligible for accreditation.

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

A. Name of the HoD : Dr. Pravin R Kale

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

- ❖ **Regular** ☑
- ❖ **Contract** ☐
- ❖ **Ad hoc** ☐

C. Qualification: (Tick the applicable choice)

- ❖ **Ph.D.** ☑
- ❖ **ME/M.Tech** ☐
- ❖ **Any other*** ☐

Please provide details:

Dr. Pravin R Kale

Ph.D Completion Year and University: 2017, RGPV, Bhopal

Date of Appointment and post at the time of appointment: 05/7/2017 and Assistant Professor

Date of Appointment as Professor: 01/07/2019

Date of Appoint of HoD : 10/05/2024

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	CAYm1	CAYm2	CAYm3	CAYm 4 (LYG)	CAYm5 (LYGm1)	CAYm6 (LYGm2)
N= Sanctioned intake of the program (as per AICTE /Competent authority)	180	180	180	180	180	180	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	167	180	160	175	135	173	176
N2= Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	00	26	46	35	73	33	30
N3= Separate division if any	00	00	00	00	00	00	00
N4= Total no. of students admitted in the 1st year via all supernumerary quotas	22	27	25	26	22	25	24
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	189	233	231	236	230	231	230

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.

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 1st year (as per AICTE/Competent authority)	180	180	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	167	180	160
N4= Total no. of students admitted in the 1st year via all supernumerary quotas	22	27	25
Enrolment Ratio (ER)= (N1+N4)/N	1	1	1
Average ER= (ER_1+ ER_2+ ER_3)/3	1		

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 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).	230	231	230
B=No. of students who graduated from the program in the stipulated course duration	202	210	218
Success Rate (SR)= (B/A)*100	87.82	90.90	94.78
Average SR of three batches ((SR_1+SR_2+ SR_3)/3)	91.17		

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= (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)	7.42	7.37	7.33
Y= Total no. of successful students	197	180	189
Z = Total no. of students appeared in the examination	202	190	199
API = X* (Y/Z)	7.23	6.98	6.96
Average API = (API_1 + API_2 + API_3)/3	7.05		

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	CAYm2	CAYm3
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)	7.3	7.21	7.25
Y= Total no. of successful students	223	210	209
Z =Total no. of students appeared in the examination	229	228	220
API = X* (Y/Z)	7.10	6.64	6.88
Average API = (API_1 + API_2 + API_3)/3	6.87		

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	CAYm2	CAYm3
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)	7.18	7.28	7.87
Y= Total no. of successful students	207	208	218
Z= Total no. of students appeared in the examination	214	209	222
API = X* (Y/Z)	6.94	7.24	7.72
Average API = (API_1 + API_2 + API_3)/3	7.3		

B9: Placement, Higher Studies, and Entrepreneurship

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

Item	LYG	LYGm1	LYGm2
FS*=Total no. of final year students	210	217	233
X= No. of students placed	128	125	157
Y= No. of students admitted to higher studies	6	5	10
Z= No. of students taking up entrepreneurship	0	0	1
X + Y + Z =	134	130	168
Placement Index (P) = (((X + Y + Z)/FS) * 100)	63.80	59.90	72.10
Average placement index = (P_1 + P_2 + P_3)/3	65.26		

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 leftover 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

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

S.No.	Name of the Faculty	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 (In case Currently Associated is "No")
1	Dr. P. R. Kale	ME/M Tech and PhD	RGPV, Bhopal	Design	05/7/ 2017	09	Assistant Professor	Professor	01/07/ 2019	Regular	NA	Y	No
2	Dr. P. A. Deshmukh	ME/M Tech and PhD	Dr. B. A. Marathwada University , Aurangabad	Heat Power	19/7/ 2016	14	Professor	Professor	19/07/ 2016	Regular	NA	Y	No
3	Dr. N. R. Deore	ME/M Tech and PhD	Indian Institute of Technology Bombay	CAD, CAM	26/9/ 2011	8	Professor	Professor	26/09/ 2011	Regular	NA	Y	No
4	Dr. U. G. Potdar	ME/M Tech and PhD	Indian Institute of Technology Bombay	Thermal	04/12/ 2008	25	Assistant Professor	Professor	01/07/ 2025	Regular	NA	Y	No
5	Mr. S. K. Bhoite	M.E/M Tech	Savitribai Phule Pune University , Pune	Metallurgy	02/9/ 2000	25	Assistant Professor	Associate Professor	02/07/ 2012	Regular	NA	Y	No

6	Mr. A. A. Panchwadkar	M.E/M Tech	Savitribai Phule Pune University , Pune	Design	02/9/ 2000	16	Assistant Professor	Associate Professor	01/07/ 2014	Regular	NA	Y	No
7	Dr. C. L. Ladekar	ME/M Tech and PhD	RTMNU, Govt. COE Amravati,	Thermal	24/8/ 2009	17	Assistant Professor	Associate Professor	01/07/ 2019	Regular	NA	Y	No
8	Dr. L.V. Awadhani	ME/M Tech and PhD	Savitribai Phule Pune University , Pune	Design	08/7/ 2010	15	Assistant Professor	Associate Professor	01/07/ 2016	Regular	NA	Y	No
9	Dr. S. B. Matekar	ME/M Tech and PhD	Savitribai Phule Pune University , Pune	Design	01/1/ 2002	23	Assistant Professor	Associate Professor	01/07/ 2016	Regular	NA	Y	No
10	Dr. S. P. Salve	ME/M Tech and PhD	Savitribai Phule Pune University , Pune	Heat Power	28/9/ 2004	21	Assistant Professor	Associate Professor	01/07/ 2016	Regular	NA	Y	No
11	Dr. N Vivekanandan	ME/M Tech and PhD	Savitribai Phule Pune University , Pune	Design and Ind. Safety Engg.	15/6/ 2009	16	Assistant Professor	Associate Professor	12/10/ 2022	Regular	NA	Y	No
12	Dr. Mrs. N. A. Mandhare	ME/M Tech and PhD	VIT Chennai	Heat Power	07/9/ 2011	14	Assistant Professor	Associate Professor	1/7/202 5	Regular	NA	Y	No
13	Dr. R. A. Gujar	ME/M Tech and PhD	Dr. B.A.T.U., Lonere	Design & Mechat ronics	01/2/ 2012	13	Assistant Professor	Associate Professor	1/7/202 5	Regular	NA	Y	No
14	Mr. U. I. Shaikh	M.E/M Tech	Dr. B.A.T.U., Lonere	Thermal	07/7/ 2008	17	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
15	Dr. S. R. Wankhede	ME/M Tech and PhD	Savitribai Phule Pune University , Pune	CAD, CAM	02/7/ 2008	17	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No

16	Mr. V K Aher	M.E/M Tech	Savitribai Phule Pune University, Pune	Auto. Engineering	15/6/2009	16	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
17	Dr. Mrs. R. S. Pimpalkar	M.E/M Tech and PhD	Savitribai Phule Pune University, Pune	Design	24/6/2009	16	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
18	Dr. A. N. Kore	ME/M. Tech and PhD	Savitribai Phule Pune University, Pune	Heat Power	30/8/2010	15	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
19	Dr. S. V. Patil	M.E/M Tech and PhD	Savitribai Phule Pune University, Pune	Heat Power	01/1/2011	14	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
20	Mrs. V. Y. Gaikhe	M.E/M Tech	Dr. B. A. T.U. Lonere, Raigad	Manufacturing	18/7/2011	14	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
21	Dr. Mrs. J. P. Wagh	M.E/M Tech and PhD	VTU, Belgavi	Design	21/7/2011	14	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
22	Dr. Mrs. G.V. Phadtare	M.E/M Tech and PhD	Savitribai Phule Pune University, Pune	Heat Power	06/1/2012	13	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
23	Mr. N. V. Gaikwad	M.E/M Tech	VNIT Nagpur	Heat Power	09/7/2012	13	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
24	Dr. G. G. Momin	M.E/M Tech and PhD	Poornima University, Jaipur, Rajsthan	Heat Power	21/6/2012	13	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
25	Dr. I. R. Sathone	M.E/M. Tech and PhD	Savitribai Phule Pune University, Pune	CAD/CAM	31/12/2012	13	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
26	Dr. Mrs. V. Y. Bhalerao	ME/M Tech and PhD	Savitribai Phule Pune University, Pune	Design	05/6/2014	11	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No

27	Mr. G. D. Kale	M.E/M Tech	NIT Warangal	CAD, CAM	25/6/ 2014	11	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
28	Mr. N. J. Surwade	M.E/M Tech	Sant Gadge Baba Amarawati University	Design, Mfg	12/6/ 2015	10	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
29	Mr. S. S. Shinde	M.E/M Tech	PAH, Solapur University	Design	13/6/ 2016	09	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
30	Mr. A. S. Kashid	M.E/M Tech	VIT, Vellore,	Design	13/6/ 2016	09	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
31	Mr. A V Suryavanshi	M.E/M Tech	VJTI, Mumbai	Automotive Engineering	08/08/ 2011	14	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
32	Dr. H H. Kadam	M.E/M Tech and PhD	Shivaji University, Kolhapur	Heat Power	07/01/ 2019	06	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
33	Mr. J D Ganeshkar	M.E/M Tech	DBAMU Aurangabad	CAD, CAM	19/01/ 2012	13	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
34	Mr. C R Ingole	M.E/M Tech	RTMNU, Nagpur	Production Engineering	31/05 /2012	13	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
35	Dr. Amrita Francis	ME/M Tech and PhD	IIT Madras	Design	11/08/ 2021	04	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
36	Dr. M. U. Madgule	ME/M Tech and PhD	VTU, Belagavi, Karnataka	Production	11/8/ 2021	04	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
37	Dr. A. B. Lingayat	ME/M. Tech and PhD	National Institute of Technology Warangal	Heat Power	08/11/ 2021	04	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No

38	Dr. M. R. Nukulwar	ME/M. Tech and PhD	SRTMU Nanded, MH	Design	15/11/2021	04	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
39	Dr. Mrs. J. S. Goyal	ME/M. Tech and PhD	Mumbai University	Design	01/12/2021	04	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
40	Dr. R B. Bhosale	ME/M. Tech and PhD	SRTMU, Nanded	CAD, CAM	22/08/2022	03	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
41	Dr. G S. Waghmare	ME/M. Tech and PhD	Savitribai Phule Pune University	Design	01/11/2022	03	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
42	Dr. U K. Maurya	ME/M. Tech and PhD	National Institute of Technology Warangal	Tribology	03/07/2023	02	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
43	Dr. Mrs. P. P. More	ME/M. Tech and PhD	Savitribai Phule Pune University, Pune	Production	03/07/2023	02	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
44	Dr. A D. Pingle	ME/M. Tech and PhD	BITS Pilani Rajasthan, India	Design	03/07/2023	02	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
45	Dr. R. A. Mali	ME/M. Tech and PhD	VNIT Nagpur	Production	10/07/2023	02	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No
46	Dr. J. S. Chordiya	ME/M. Tech and PhD	National Institute of Technology Jamshedpur, Jharkhand	CIDM	22/07/2023	02	Assistant Professor	Assistant Professor	--	Regular	NA	Y	No

47	Dr. A. Mathew	ME/M Tech and PhD	IIT Madras	Thermal	08/08/2022	0.6	Assistant Professor	Assistant Professor	--	Regular	NA	N	24/02/2023
48	Dr. R. B. Patil	ME/M Tech and PhD	Savitribai Phule Pune University, Pune	Design	17/05/2021	2.7	Assistant Professor	Assistant Professor	--	Regular	NA	N	20/12/2023
49	Dr. A. V. Borgaonkar	ME/M Tech and PhD	National Institute of Technology Warangal	Design	11/08/2021	3.1	Assistant Professor	Assistant Professor	--	Regular	NA	N	31/05/2024
50	Dr. S. M. Mulay	ME/M Tech and PhD	IIT Madras	CAD, CAM	11/10/2021	3.1	Assistant Professor	Assistant Professor	--	Regular	NA	N	31/01/2024
57	Mr. K. Malokar	M.E/M Tech	SPPU, Pune	Heat Power	12/01/2021	3.7	Assistant Professor	Assistant Professor	--	Regular	No	N	31/08/2024

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

S.No.	Name of the Faculty	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 (In case Currently Associated is "No")
Not Applicable													

C2: Student-Faculty Ratio (SFR)

- PG_1=1st PG program.
- PG_m=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)).

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

Year	**CAY**	**CAYm1**	**CAYm2**
UG_1. B // 2nd year students of UG_1 program	180+18=198	180+18=198	180+18=198
UG_1. C // 3nd year students of UG_1 program	180+18=198	180+18=198	180+18=198
UG_1. D // 4th year students of UG_1 program	180+18=198	180+18=198	180+18=198
UG_1 // Total no.of students(2nd, 3rd, 4th) in UG_1 program	UG_1.B+ UG_1.C+ UG_1.D=594	UG_1.B+ UG_1.C+ UG_1.D=594	UG_1.B+ UG_1.C+ UG_1.D=594
…			
UG_n. B // 2nd year students of UG_n program	0	0	0
UG_n. C // 3nd year students of UG_n program	0	0	0
UG_n. D // 4th year students of UG_n program	0	0	0
UG_n // Total no.of students(2nd, 3rd, 4th) in UG_n program	UG_n.B+UG_n.C+UG_n.D=0	UG_n.B+UG_n.C+UG_n.D=0	UG_n.B+UG_n.C+UG_n.D=0
PG_1. A // 1st year students of PG_1 program	18	18	18
PG_1. B // 2nd year students of PG_1 program	18	18	18
PG_1 // Total no.of students(1st, 2nd) in PG_1 program	PG_1.A+ PG_1.B=36	PG_1.A+ PG_1.B=36	PG_1.A+ PG_1.B=36
…..			
PG_m. A // 1st year students of PG_m program	18	18	18
PG_m. B // 2nd year students of PG_m program	18	18	18
PG_m // Total no.of students(1st, 2nd) in PG_m program	PG_m.A+ PG_m.B=36	PG_m.A+ PG_m.B=36	PG_m.A+ PG_m.B=36
DS=Total no. of students in all UG and PG programs in the Department	666	666	666
AS=Total no. of students of all UG and PG programs in allied departments	…..	…..	…..
S=Total no. of students in the Department (DS) and allied departments (AS)	S1=UG_1+UG_2+.. +UG_n+PG_1 + …PG_m=666	S2=UG_1+UG_2+.. +UG_n+PG_1 + …PG_m=666	S3=UG_1+UG_2+.. +UG_n+PG_1 + …PG_m=666
DF=Total no. of faculty members in the Department	46	46	48
AF= Total no. of faculty members in the allied Departments	…..	…..	…..
F=Total no. of faculty members in the Department (DF) and allied Departments (AF)	F1=46	F2=46	F3=48
FF=The faculty members in F who have a 100% teaching load in the first-year courses	FF1=04	FF2=04	FF3=04
Student Faculty Ratio (SFR)=S/(F-FF)	SFR1= S1/(F1-FF1)=15.857	SFR2=S2/(F2-FF2) =15.857	SFR3=S3/(F3-FF3)= 15.136
Average SFR for 3 years	Average SFR=(SFR1+SFR2+SFR3)/3= 15.615		

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	FQI= 2.5 * [(10X +4Y)/RF]
CAY	33	13	34	28.09
CAYm1	27	19	34	25.44
CAYm2	26	22	34	25.59

C4: Faculty Cadre Proportion

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

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

Year	Professors		Associate Professors		Assistant Professors	
	Required Faculty(RF1)	Available Faculty(AF1)	Required Faculty(RF2)	Available Faculty(AF2)	Required Faculty(RF3)	Available Faculty(AF3)
CAY	3.7	4	7.4	7	22.2	30
CAYm1	3.7	3	7.4	6	22.2	31
CAYm2	3.7	3	7.4	5	22.2	32
Average Numbers	RF1=3.7	AF1=3.33	RF2=7.4	AF2=6	RF3=22.2	AF3=31

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
CAYm1				
1	Nil			
			Total no. of hours:	Nil
CAYm2				
1	Nil			
			Total no. of hours:	Nil

CAYm3				
1	Nil			
			Total no. of hours:	Nil

C6: Academic Research

Table No. C6.1: Faculty publication details.

S.N.	Item	CAYm1	CAYm2	CAYm3
1	No. of peer reviewed journal papers published	44	37	26
2	No. of peer reviewed conference papers published	2	7	37
3	No. of books/book chapters published	2	2	2

C7: Sponsored Research Project

Table No. 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 (Lacs)
CAYm1							
1	Mr. N V Gaikwad	Dr. N R Deore	Mechanical Engg	Design and Development of Ultrathin Vapour chamber for cooling of Microcontrollers/ Thyristors in HVAC applications	ISHRAE	6 months	0.5
2	Dr. A N Kore	–	Mechanical Engg	Design and Development of Innovative Technology for Sustainable Jaggery Manufacturing Using Thermic Fluid	ASPIRE Grant (SPPU)	2 Years	1
3	Mr. A V Suryavanshi	–	Mechanical Engg	Enhancement in Pool Boiling by using Hybrid nano fluids and environmentally acceptable Surfactant	ASPIRE Grant (SPPU)	2 Years	0.8
						Amount received (Rs.)	**2.3**
CAYm2							
1	Dr R B Patil	–	Mechanical Engg	Development of unmanned aerial vehicle (UAV) based fault detection and diagnosis system for solar photovoltaic panels	SIRO	1 Year	5
2	Dr Vivekanandan. N.	–	Mechanical Engg	An ubiquitous system for secure breast cancer detection using portable image acquisition and deep learning methods	SIRO	1 Year	5
						Amount received (Rs.)	**10**
CAYm3							
1	Dr. A B Lingayat, Dr. Jaya Goyal	–	Mechanical Engg	Design and development of a geothermal air conditioning test rig.	ISHRAE	1 Year	1
2	Dr. R B Patil, Mr Pramod Sonwane	–	Mechanical Engg	Development of reliability analysis model and fault detection and diagnosis system for maintainability optimization of solar photovoltaic plant	SIRO	1 Year	5
3	Mrs.S V Patil	–	Mechanical Engg	Modular development of conventional vehicle into electric vehicle	SIRO	1 Year	5
4	Dr. R B Patil, Mr Pramod Sonwane	–	Mechanical Engg	Development of unmanned aerial vehicle (UAV) based fault detection and diagnosis system for solar photovoltaic panels	SIRO	1 Year	5
						Amount received (Rs.)	**16**
						Total Amount (Lacs) Received for the Past 3 Years	**28.3**

C8: Consultancy Work

Table No. 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 (Lacs)
CAYm1							
1	Dr. Jaya Goyal	--	Mechanical Engg	Consultancy - Green Buildings	Meet Freespanz (OPC) Pvt. Ltd.	11/12/2024	0.5
					Amount received (Rs.)	**0.5**	
CAYm2							
1	Mechanical Faculty		Mechanical Engg	Training for Employee of AirtelNxtra	Airtel Nxtra Data Limited, Pune	05/02/2023 to 28/03/2023	0.34
					Amount received (Rs.)	**0.34**	
CAYm3							
1	Dr. Jaya Goyal	--	Mechanical Engg	Energy Audit at Chakan Municipal Corporation	Chakan Municipal Corporation	03/04/2023	0.28
2	Dr. Jaya Goyal	--	Mechanical Engg	Energy Audit at Vadgaon Maval Municipal Corporation	Maval Municipal Corporation	17/05/2023	0.30
					Amount received (Rs.)	**0.58**	
Total amount (Lacs) received for the past 3 years						**1.42**	

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.

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S.N.	Faculty name	Project title/ Support for Activity	Dura-tion	Amount (Lacs)	Amount Utilized (Lacs)	Outcomes of the project
CAYm1						
1	Dr. Abhay Lingayat	Enhancement of Electronic Cooling System Using Grooved Metal Fin Heat Sink	6	0.14	0.14	--
2	Dr. N. A. Mandhare	Reduction in Viscosity of Crude Oil using Agriculture Waste Material for Sustainable Development and Analysis of Rheological Properties	6	0.14	0.14	Paper publication
3	Dr. L.V. Awadhani	Development and Characterization of new Composite Material for Maximizing Tensile Strength	6	0.075	0	NA
4	Mrs. Rita Pimpalkar	Predictive maintenance and automatic cleaning of solar panels	6	0.14	0	New product development
5	Mr. Vikram Aher	Non-Contact Bending of Titanium Alloy Plate Using Laser Beam.	6	0.2	0.2	--
6	Prof. H. H. Kadam	Investigation of heat transfer enhancement by using nanofluids with Bio-Surfactant	6	0.3	0.3	Paper publication
7	Dr. Amrita Francis	Solar Panels That Cool Themselves: The Next Big Breakthrough?	6	0.15	0	NA

8	Prof N. V. Gaikwad	Design and development of ultrathin vapor chamber for electronic cooling application	6	0.3	0.3	Paper publication
9	Prof. Ummid Shaikh	Design, development and optimization of hybrid battery thermal management system with thermoelectric and immersion liquid cooling	6	0.3	0.3	New product development
10	Prof. G. G. Momin	Design, Manufacturing and Analysis Chromatographic Ripeness Analyzer	6	0.12	0.12	Conference Paper
11	Prof. S. S. Shinde	Investigation of Aluminum Matrix Hybrid Nano Composites Produced by Modified Stir & Squeeze Casting for Aerospace Application	6	0.25	0.25	New material development
12	Dr. S. B. Matekar	Velomobile for delivery services	6	0.2	0.2	New product development
Amount received (Rs.)				**2.32**		
CAYm2						
1	Dr J S Chordiya	Design and development of a low-cost water heating solar concentration system using PCM-embedded spherical porous and volumetric receiver for residential and light- commercial applications	24	1.56	0.00	Prototype Development, Publication
2	Mr H H Kadam	Enhancement in flow boiling applications by using Nanofluids and surfactants	24	2.00	1.00	Set up Development, Publication
3	Mr. A. S. Kashid	Vision-based object sorting Robot Manipulator	6	0.50	0.50	Set up Development
4	Dr. S B Matekar	Development of Autonomous Foldable Railway Track Inspection Robot	6	0.70	0.70	Prototype Development
5	Mr. I R Sathone	Optimization of failure of LCP using Taguchi Method	6	0.25	0.25	Publication
6	Dr. A B Lingayat	Design and Development of Archimedes Spiral Wind Turbine for Urban Wind Harvesting and Sustainable Power Generation	6	0.25	0.25	Set up Development conference paper
7	Dr. Sanjay Salve	Experimental investigation to enhance the performance and Comfort of double tin made small house	6	0.20	0.20	–
8	Dr. M U Madgule	Investigative studies on incorporation of Al metal foam to improve the efficiency of battery thermal management system of EV	6	0.25	0.25	–
9	Mr. N V Gaikwad	Design and Development of Vapour Chamber for Laptop Cooling application	6	0.70	0.70	–
10	Mr. G G Momin	Experimental Investigation of VCR'S Diesel Engine for It's Performance and Emission Analysis and Durability Test Using Vegetable Oil	6	0.45	0.45	Experimental set-up, Publication
11	Dr. Vivekana ndan. N.	Replacing a contact type stylus with an electronically controlled noncontact type stylus and eventually generating a graphical output to predict required results	6	0.40	0.00	–
12	Dr. P A Deshmukh	Design and optimization of CFRP Anti-roll bar	6	0.18	0.18	–

13	Mr. S S Shinde	Investigation of Mechanical and Tribological Properties of Aluminum Matrix Hybrid Nano Composites	6	0.45	0.37	Publication
				Amount received (Rs.)	**7.89**	
CAYm3						
1	Mrs. S V Patil	Design and development of an efficient air-cooled battery thermal management system for four-wheeler electric vehicle	12	1.99	1.99	xperimental set-up
2	Mr. G G Momin	Design of multi pressure refrigeration system with 2 Evaporator individual expansion valve	6	0.45	0.45	xperimental set-up
3	Dr N A Mandhare	Comprehensive experimental investigation on influence of variation of pressure on coefficients of rolling resistance and friction	6	0.5	0.5	Experiment al set-up, Publication
4	Mr. N V aikwad	Design and Development of Vapour Chamber as Heat Spreader for Electronic Cooling Application	6	0.8	0.36	Product developme nt
5	Dr N A Mandhare	Experimental Investigation of Coefficient of impact of Micro Grooved Plates	6	0.5	0.5	Experimental set-up, Publication
6	Dr Vivekanandan. N.	Autonomous Agribot used for Weeding Purpose	6	1.3	1	Experiment al set-up, Publication
7	Mr. U I Shaikh	Development of the thermal management system for battery pack hybrid electric scooter	6	0.77	0.57	Experiment al set-up, Publication
8	Mrs. J P Wagh	Development and analysis of Green composite material	6	0.14	0.13	--
9	Dr. P. A. eshmukh	Design of Hybrid Composite Battery Box	6	0.37	0.37	--
10	Mrs. J P Wagh	Investigative Study and test of natural fiber hybrid composites bumper beam	6	0.52	0.46	Sustainable material development
11	Dr. A B Lingayat, Dr. Jaya Goyal	Experimental investigation on geothermal air- conditioning for the the sustainable cold storage system	6	0.51	0.51	Experiment al Set-up, Patent Under Process and paper Under review
				Amount received (Rs.)	**7.85**	
Total amount (Lacs) received for the past 3 years					**18.06**	

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.

S.N.	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	Computer Centre (9101LA)	1	1. Computer- HP Workstation Intel i7-10700 processor 16GB (2x8GB) DDR4 RAM 3200, 1TB HDD, Nvidia quadro P100 4GB Graphics, 21" LED Monitor, USB K/B, Optical Mouse (10) 2. Computer Lenovo Neo 50T Desktop 12th Gen intel Core i9 Processor, 2X16 GB DDR4 RAM, 1X256 GB SSD PCI 1 TB HDD, AMD Radeon RX6400 4 GB Graphics Card, Wi-Fi & Bluetooth, USB KB & Optical Mouse, Warranty 3 yr (15) 3. Ansys 25, 50 Academica Ver., 05 Research Ver.	Sem. I: 24 hrs./week Sem.II: 24 hrs./week	Mr. L. K. Raskar	Lab Assistant	B.E. (Computer), Diploma Computer Engineering, CCNA
2	Computer Application (9116LA)	1	➢ Computers-HP Elite 800 G9 intel core i9 - 12900 2.4 G 30 MB 16 core 65 Windows 11 Pro OS, 32 GB DDR-5	Sem. I: 30 hrs./week Sem.II: 24 hrs./week	Mr. A. S. Tapkir	Lab Assistant	Diploma Computer Engineering, CCNA, MCSA

			4400(16x2), 256 GB SSD, 1 TB 7200 SATA, 4 GB Nvidia graphics T400 with wifi, Bluetooth, USB K/B, Mouse, HP-21.5" Monitor, 3 Years warranty (25) ➢ Mathwork 2025 Product Matlab Suite, Campus wide License full with MAOTS Unlimited				
3	Computer Graphics (9115LA)	1	1. Computer i7 HP 280 G9 Desktop Small Form Factor Intel Core i7-12700 2.1OG 25MB 12 cores 65W Free DOS, 8GB DDR4-3200(1X8GB), 512 GB SSD, Wifi Bluetooth, USB KB and Mouse, HP 19.5" Monitor 3 year Warranty (25) 2. CATIA Education al ver V5 R23 (40 Users)	Sem. I: 24 hrs./week Sem.II: 24 hrs./week	Mr. A. S. Tapkir	Lab Assistant	Diploma Computer Engineering, CCNA, MCSA
4	Refrigeration & Air Conditioning Lab (9113LA)	4	➢ Air conditioning Test Rig. ➢ Refrigeration tutor. ➢ ICE Plant. ➢ Vapour Absorption Refrigeration Test Rig ➢ Heat Pump Test Rig.	Sem. I: 24 hrs./week Sem.II: 06 hrs./week	Mr. K. T. Mhaske	Lab Assistant	ITI, NCTVT
5	Heat Transfer (9112LA)	4	1. Thermal conductivity of	Sem. I: 24 hrs./week	Mr. K. T. Mhaske	Lab Assistant	ITI, NCTVT

			insulating powder. 2. Metal rod apparatus. 3. Composite wall apparatus. 4. Pin-Fin losing heat in Natural Convection. 5. Natural convection heat transfer from a heated vertical cylinder. 6. Forced Convection Apparatus. 7. Emissivity apparatus. 8. Stefan - Boltzmann apparatus. 9. Critical Heat flux apparatus. 10. Parallel flow, Counterflow heat exchanger.	Sem.II: 24 hrs./week			
6	Metrology and Quality Control (9106LA)	4	1. Dial Gauge Calibration Tester (For Plunger / Lever-type Dial Gauges) 2. Profile Projector System (Screen 200 mm dia), Magnification: 10X, 20X 3. Tool Maker's Microscope 4. Portable Surface Roughness Tester 5. SPC / SQC Test Set up (APG / ARG / Height Gauge) - Baker Make 6. Calibration Grade - Slip Gauge Box (M 112) 7. Angle Gauge Kit (13 pieces) / Sine Centre (200 mm) 8. Electronic Comparator /	Sem. I: 24 hrs./week Sem.II: NIL	Mr. S. D. Narwade	Lab Assistant	B.Com, ITI, NCTVT

			Probe Set 9. Floating Carriage Micrometre with 3 wire sets, etc.				
7	Dynamics of Machinery (9218LA)	4	1. Multi-channel FFT Analyzer: 4 Channel FFT Analyzer, B&K Make Microphone Type 6Hz to 20kHz, Tri-Axial Accelerometer, Optical Tachometer. 2. Governor Apparatus 3. Motorised Gyroscope 4. A universal vibration test rig 5. Static and Dynamic Apparatus 6. Digital Stroboscope 7. Handheld Vibrometer 8. Shock Absorber Test Rig 9. Sound level meter	Sem. I: 24 hrs./week Sem.II: 24 hrs./week	Mr. M.N.Landge	Technical Assistant	Diploma in Auto. Engg.
8	Theory of Machines (9217LA)	4	1. A clutch friction test rig 2. Continuous variable transmission apparatus 3. Epicyclic gear train and Holding Torque Apparatus. 4. Generation of Involute Gear Tooth Profile.	Sem. I: Nill Sem.II: 24 hrs./week	Mr.B.D. Daundkar	Lab Assistant	Diploma in Mechanical Engineering
9	Material Science & Metallurgy Laboratory (9318LA)	4	1. Portable magnetic particle crack detector. 2. Converted Rockwell Hardness tester with Non-Standard Brinnel hardness tester 3. Digital Micro-	Sem. I: 24 hrs./week Sem.II: NIL	Mr. A. R. Kumkar	Lab Assistant	Diploma in Automobile Engineering, Bachelor of Arts

			Vickers Hardness Tester 4. Poldihardness tester 5. Muffle Furnace with Data Logger 6. Trinocular Metallurgical Microscope with camera and Software 7. Double Disc polisher 8. Abrasive cut-off wheel machine 9. Hot mounting machine 10. Halls flow meter 11. Form Lab 4 3D Printer. 12. Ultrasonic Flaw Detector				
10	Elements of Mechanical Engineering/ Mechanics of Composite Lab. (9316LA)	4	1. Actual cut-section model of a four-stroke multi-cylinder engine 2. Actual Cut section model of the Differential gearbox 3. Actual Cut section model of Synchromesh gearbox 4. An actual four-stroke multi-cylinder engine can be assembled and disassembled with a toolbox. 5. Motorized wall mounted display Boards: 6. Gear Drive: 7. Helical Bevel, Rack, and Pinion, 8. Worm Gear engine mechanism, 9. oscillating cylinder mechanism, 10. pendulum pump	Sem.I: 18 hrs./week Sem.II: 24 Hrs/week	Mr. B. D. Daundkar	Lab Assistant	Diploma in mechanical engineering

			mechanism, 11. Whitworth mechanism. 12. KALPAK Computerized Universal Testing Machine KIC-2-200-C (Capacity 20 KN), SR, NO. 240201				
11	Mechatronics and Automation Center (8203LA)	4	1. Temperature Measurement system with DAQ System. 2. Strain Gauge measurement system with DAQ System Automation Studio Educational complete package-10-user 3. LabVIEW Single User License (With all tool kit) 4. Simpleware scan IP software 5. PID control DC Implementation motor 6. Desktop Dell Vostro 3900 7. Hydraulic Trainer 8. Electro-Pneumatic Trainer 9. Testing Of Pressure Relief Valve Trainer 10. PLC & MI Training Kit. 11. Omega LVDT Sensor &NI 9232 Module. 12. Dell 4th Gen core i5,4GB single DDR 1TB monitor keyboard &mouse desktop Pc 10 Qty.	Sem. II: 24 hrs./week	Mr.M.S. More	Lab Assistant	Diploma in Automobile Engineering, B.Sc./MBA

12		4	❖ Pelton wheel	Sem.I:	Mr. R. S.	Lab	Diploma in

	Fluid Engineering Lab. (1E01LA)		turbine test rig. ❖ Multi-Speed centrifugal pump test rig. ❖ Francis turbine test rig. ❖ Kaplan turbine test rig. ❖ Apparatus for Demonstration Impact of jet ❖ Sprit-type Cut section of Centrifugal Pump-E ❖ Experimental & performance investigation of the centrifugal pump by nose cap-E ❖ Electromagnetic flowmeter- ❖ Multichannel data logging for the centrifugal pump test rig. ❖ Hydraulic Bench 1) Bernoulli's Apparatus 2)Venturimeter & orifice meter 3) Triangular Notch (V-Notch) 4)Reynolds's Apparatus ❖ Hale Shaw Apparatus ❖ Metacentric Height Apparatus. ❖ Design & Dev. of Exp. Setup of Measuring Major & Minor Losses ❖ Electrical Analogy	24 hrs./week Sem.II: 28 hrs./week	Gogawale	Assistant	Automobile Engineering

			Flow Below Weir-E				
13	IC Engine & Thermal Engineering lab. (101LA)	4	1. Two-stage air-cooled reciprocating air compressor. 2. Steam power plant with eddy current dynamometer & boiler. 3. Bomb calorimeter 4. Junkers Gas Calorimeter 5. OrsatAPP 6. Four-stroke single-cylinder Diesel Engine test rig. 7. 4-Stroke multi-cylinder petrol engine test rig. 8. Variable compression ratio research Engine test rig. 9. Electromagnetic flowmeter. 10. Cut-section of fuel injection pump of 4-cylinder diesel engine. 11. Smoke Meter Flow Switch 12. Exhaust Gas Analyser	Sem.II: 22 hrs./week	Mr. V.R.Kalbhor	Workshop Instructor	ITI, NCTVT

14	Drawing Hall (9401DH & 9402DH)	1	1. 3D wooden models of (Triangular, square, pentagonal, hexagonal) prisms and pyramids, 2. 3D wooden models of spheres and the the intersection of solids. 3. Wall charts of types of lines, projection of lines, plane, solid& orthographic, and isometrics projections. 4. Drawing tables and stools	Sem I: 36 Hrs/Week	Mr. S. D. Narwade	Lab Assistant	B.Com, ITI, NCTVT
15	System Engineering Lab (9404 LA)	1	1. Software New perpetual + SWMC for the first year of perpetual as per Q101843. 2. Data logger system	-	Mr. U. D. Sorte	Lab Assistant	Diploma in Mechanical Engineering
16	PG Computational Mechanics (9511LA)		1. HP- Intel (R) Xenon (R) Intel 3500 series Processor, RAM DDR4 16GB, 500 GB HDD, 19' LED Monitor, USB K/B, Optical Mouse. (10 PC) 2. Lenovo Thinkstation S30- Intel ® Xenon CPU ES-1620 v2 3.70GHz , RAM DDR3 32GB, 1TB HDD,18.5" LED	Sem. I: 16 hrs./week Sem.II: 10 hrs./week	Mr. Karan B. Khare	Lab Assistant	BE (Mechanical Engineering)

			Monitor,USB K/B, Optical Mouse, 2GB NVIDIA Quadro k200 card.(10 PC) 3. Computer System - Server (84715000) Hpe ML350 Gen10 4210R 1P, 8SFF Svr Part No-P21788-371 S.No-CN71021548, CN70421689 RAM 32GB 2Rx4,SSD 960GB,NVIDIA Quardo K2000 Graphics Card,Monitor 24" LED (02) 4. Ansys 25, 50 Academic Ver., 05 Research Ver.				
17	PG Design Engineering (9512LA)		1. Dell i5 vestro 3650 MT 1TB HDD, 8GB DDR3,19 Monitor, Bluetooth, Wi-Fi, USB, keyboard, Mouse (20 PC) 2. Computer Dell -Intel Core i3 4160, RAM DDR3 4GB, 500GB HDD, 18.5" LED Monitor, USB K/B, Optical Mouse (03 PC) 3. Workstation-Lenovo -Intel Core i5 3350, RAM DDR3 16GB, 2TB HDD,18.5" LED Monitor, USB K/B,	Sem. I: 12 hrs./week Sem.II: 10 hrs./week	Mr. Karan B. Khare	Lab Assistant	BE (Mechanical Engineering)

			Optical Mouse,1GB NVIDIA card. 4. Adams-University Structures+Motion Bundle - 50 User Bundle, MSC Fatigue Complete Package - - 50 User Bundle, MSC Nastran Aeroelasticity II - - 50 User Bundle, Patran CAE Solid Modeling - - 50 User Bundle, Simufact Forming University Bundle - 5 User, Simufact Welding University Bundle - 5 user, Simufact Additive University Bundle – 5 user, Digimat Academic Research (5 seats), Sc Tetra - Standard Set - 5 User Bundle. 5. Hyper Work FEA: Solver-Radiors Module Pre Process-Hyperwork Module Port-Hyperview Module Port-Hypergraph Module (25 Users). 6. Hyper Work Research Copy: Single node. 7. Ansys: AcademicResearch				

			Mechanical & CFD ….5 Task software to ANSYS Version 2021 R1 (Perpetual License)				
18	NVH Lab (G-005)		1. Electrodynamics Shaker. 2. Impact Hammer 3. 12"Diffused Research Polaris scope 4. Sound Calibrator 5. Uniaxial Accelerometer	Sem. I: 12 hrs./week Sem.II: 10 hrs./week	Mr. K. B. Khare	Lab Assistant	BE (Mechanical Engineering)
19	Central Workshop (8204LA)	1	❖ MIG Welding Machine (250 Amp.) ❖ Vertical machining center PX10 ❖ Dilip Brand Lathe Machine-011 ❖ Turner Brand Lathe Machine-04 ❖ Surface Grinding Machine-Kohinoor Make ❖ Radial Drilling M/c. ❖ Shaping Machine-Anup Make ❖ Band Saw Machine - Laxmi Make ❖ Woodturning Lathe - Jai Make ❖ Air Cooled welding Transformer 200 amp. ❖ Hina Universal Geared Milling Machine. ❖ Bench	Sem.I: 36 hrs./week Sem.II: 36 hrs./week	Mr. A. D. Gadekar,	Welding Instructor	HSC, ITI, NCTVT

			Grinder - 2. ❖ Power press machine - 5 Tonnage Capacity. ❖ Turner brand lathe machine-05. ❖ YSM 16 SS M1TR machine - 01. ❖ High-precision all-geared lathe machine-04. ❖ Pillar-type drill m/c-01. ❖ Laser cutting machine-01. ❖ Surface planer m/c.-01. ❖ Circular saw m/c-01 ❖ Lenovo Neo-50T Desktop 12th Gen core i5 poc 8gb ram 1TB HDD Nvidia GT730 Monitor Keyboard & mouse 13 qty.				

D2: `Safety Measures in Laboratories

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

S.N.	Name of the Laboratory	Safety measures
1	Workshop and Innovation Center	Operate machinery and power tools strictly under the supervision of workshop staff. Know the position of the emergency stop switches, press the emergency switch in case of an emergency. Keep hands away from moving/rotating parts. Don't leave sharp tools unattended. Welding goggles are compulsory while doing welding operations. Switch off the machine before adjusting or cleaning.

		Report every damage to the machine/equipment, as this could cause an accident.
2	Computer Application, Computer Graphics, Ph.D. Research Centre, PG Thermal Lab., System Engineering Lab	In case of fire, make use of a fire extinguisher. Any student or staff with a medical condition that may require special first aid treatment, e.g., a small wound or headache, may be made aware of this by first aiders kept in the department. Do not touch and operate the high-voltage electric plugs and cables. Do not use social networking portals and e-commerce portals to perform transactions. When using private storage devices, ensure they are virus-free.
3.	Refrigeration & Air Conditioning, Heat Transfer, Mechatronics, Hydraulics & Pneumatics Lab, ICE lab, Thermal lab	Electrical hazards: beware of electrical connections Controls are sensitive and operate slowly and carefully within the operating range. Don't operate equipment without proper instruction & permission Do not operate the high voltage electric, plug & cables In case of fire, make use of a fire extinguisher. Keep the working area ventilated.
4	Dynamics of Machinery, Theory of Machines	Keep a safe distance from the moving and rotating parts. Don't experiment in the absence of a lab assistant/Faculty member. Follow the operating procedure explained by the faculty member for performing experiments. Keep the Lab clean. Handle the instruments carefully. Switch off lights and fans before leaving the laboratory.
5	Fluid Engg. Lab. (Turbomachines & Fluid Mechanics)	Do not start the electric supply without ensuring proper wiring. Ensure that a sufficient quantity of water is available in the tank. Make sure that there is no water leakage from the pipes. Always operate the turbine with a load. Never switch off the supply pump set when the turbine is working under load. Before switching on the mains switch, ensure that the regular knob is at the minimum position.

6	Material Sicence & Metallurgy Laboratory, Elements of Mechanical Engg. Lab., Metrology and Quality Control	Do not experiment in the absence of a lab assistant/Faculty. Handle the instrument carefully. Switch the lights and fans before leaving the lab. Keep lab areas clean and tidy, and use dustbins to put the waste. In case of fire, make use of a fire extinguisher. Eatables are not allowed in labs.
7	Testing of Materials Lab	Do not attempt to operate any electrical equipment without an instructor. Always keep a safe distance while performing a load test on materials.
8	Automation Center/Mechatronics lab	Do not put your fingers in hot water while performing experiments related to temperature measurement. Do not disturb any equipment settings without prior permission during practical performance. Be sure that the equipment is switched off after use. Report any hazardous conditions(electrical, trip hazards, etc) observed during practical. Put the tool/material/equipment in the appropriate place after the performance. After the use of the lab computer, it should be shut down properly Clean spilt oil immediately and dispose of the cotton waste properly. Always keep the lab clean & tidy.
9	IC Engine & Thermal Engineering Laboratory	1. Always wear shoes in the lab. 2. Keep a safe distance from the moving and hot parts of the engine and boiler. 3. Don't perform the experiments in the absence of a lab assistant/lab in charge. 4. Follow the general operating procedure when performing experiments. 5. Avoid spillage of petrol/diesel/oil. 6. Keep the floor dry and clean. 7. Do not change any equipment settings.

D3: Project Laboratory/Research Laboratory

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

S.N.	Name of the Laboratory
1.	Project Laboratory (Ground Floor)
2.	Research Centre/ Centre with Computational Facility (9214LA)
3.	Product Design and Development Lab (9416LA)
4.	Model-Based System Engineering Laboratory (MBSE Lab-Fourth Floor)
5	Battery Testing Lab (9413LA)
6	Reliability & Adhesive Technology Lab By Henkel LTD

PART E: Fist 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
CAY 25-26	960	48	40	19	74.58
CAY 24-25	960	48	41	21	77.08
CAY1 23-24	900	45	40	21	80.44

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

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

Sr. No.	Items	Budget in CFY (2025-26)	Actual expenses in CFY till 30/11/2025	Budgeted in CFYm1 (2024-25)	Actual Expenses in CFYm1 (2024-25)	Budgeted in CFYm2 (2023-24)	Actual Expenses in CFYm2 (2023-24)	Budgeted in CFYm3 (2022-23)	Actual Expenses in CFYm3 (2022-23)
1	**Infrastructure Built-Up**	13,01,82,505	7,40,00,000			-	-		-
2	**Library**	85,00,000	32,35,328	70,00,000	57,55,350	70,00,000	71,79,028	60,00,000	66,39,366
3	**Laboratory Equipument**	3,80,00,000	2,79,01,700	2,20,00,000	2,43,25,788	3,60,00,000	3,87,22,259	4,25,00,000	4,04,01,258
4	**Teaching & Non -Teaching Staff Salary**	52,08,38,794	34,74,33,396	47,70,00,000	47,65,47,172	43,05,00,000	44,86,20,831	36,75,00,000	36,99,01,701
5	**Outreach Program**	15,00,000	3,03,443	-	-	-	-	-	-
6	**R&D**	85,00,000	42,65,814	95,00,000	73,24,744	80,00,000	79,53,865	80,00,000	79,36,727
7	**SDG**	20,00,000	90,377						
8	**Entrepreneurship**	15,00,000	11,88,045						
9	**Training, Placement and Industry linkage**	35,00,000	10,53,227	30,00,000	31,29,631	30,00,000	24,12,094	25,00,000	21,11,428
10	**Others**								
	Staff Actvities & welfare (FDW)	30,00,000	18,23,407	35,00,000	28,33,969	30,00,000	32,37,665	30,00,000	33,22,104
	Student Actvities & Welfare Expenses (SDW)	2,40,00,000	82,75,651	2,50,00,000	2,11,12,703	1,90,00,000	1,56,47,243	1,95,00,000	1,77,64,257
	Repair & Maintenance	1,25,00,000	48,98,560	1,35,00,000	70,98,493	70,00,000	50,41,530	1,00,00,000	2,67,51,825
	Consumable Expenses					50,00,000	33,24,726	40,00,000	56,25,753

	Furniture, Electrification, Electricity & Fuel Expenses, Communication Expenses, Establishment Expenses, Affiliation Expenses, Municipal Taxes & Water Charges, Building Usage Charges	5,12,00,000	2,84,64,056	15,24,79,456	11,44,82,126	9,95,20,447	9,70,27,495	11,97,89,225	13,79,40,142
	Total	**80,52,21,299**	**50,29,33,004**	**69,09,79,456**	**45,57,43,194**	**61,80,20,447**	**62,91,66,736**	**58,27,89,225**	**61,83,94,561**

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 CFY in Rs. (2025-26)	Actual expenses in CFY (till 30.11.25	Budgeted in CFYm1 (2024-25)	Actual Expenses in CFYm1 (2024-25	Budgeted in CFYm2 (2023-24)	Actual Expenses in CFYm2 (2023-24)	Budgeted in CFYm3 (2023-22)	Actual Expenses in CFYm3 (2023-22)
Laboratory equipment	2275000	1519000	2552850	2023071				
Software	2710112	4017430	4026000	3945782	4740000	4874008	6130000	7213457
SDGs	404494	18278.5	-	-	-	-	-	-
Support for faculty development	606742	340679	-	-	-	-	-	-
R & D	1719101	2025447	1564650	1580218	1150000	1595641	1260000	881610
Industrial Training, Industry expert, Internship	437500	195782	576450	579645	390000	393862	420000	748354
Student activity and welfare	4369000	3540741	4117500	4049048	2280000	2162580	2140000	4298603
Miscellaneous expenses *	6694843	5906867	6258600	6208911	3820000	4152083	3820000	5928567
Total amount	**18779292**	**17368442.5**	**19096050**	**18386675**	**12380000**	**13178174**	**13770000**	**19070591**