NATIONAL BOARD OF ACCREDITATION

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

| | |
|---|---|
| **Program Name** : Mechatronics Engineering | **Discipline**: Engineering & Technology |
| **Level** : Under Graduate | **Tier**: 2 |
| **Application No**: 11534 | **Date of Submission**: 26-02-2026 |

# PART A- Profile of the Institute

| | |
|---|---|
| **A1.Name of the Institute**: Marathwada Mitra Mandals Institute of Technology | |
| Year of Establishment : 2008 | Location of the Institute: Pune |
| **A2. Institute Address**:Lohgaon Pune | |
| City:Pune | State:Maharashtra |
| Pin Code:411047 | Website:www.mmit.edu.in |
| Email:principal@mmit.edu.in | Phone No(with STD Code):- |
| **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**: Non-Autonomous (Affiliated) | |
| **A5. Ownership Status**: Self financing | |

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

- No. of UG programs: **6**
- No. of PG programs: **2**

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

| Sr.No. | Discipline | Level of program | Name of the program | Year of Start | Year of Closed | Name of The Department |
|---|---|---|---|---|---|---|
| 1 | Engineering & Technology | UG | Artificial Intelligence and Data Science | 2021 | -- | Artificial Intelligence and Data Science |
| 2 | Engineering & Technology | UG | Civil Engineering | 2019 | -- | Civil Engineering |
| 3 | Engineering & Technology | UG | Computer Engineering | 2008 | -- | Computer Engineering |
| 4 | Engineering & Technology | PG | Computer Engineering | 2024 | -- | Computer Engineering |
| 5 | Engineering & Technology | UG | Mechanical Engineering | 2008 | -- | Mechanical Engineering |
| 6 | Engineering & Technology | UG | Mechatronics Engineering | 2020 | -- | Mechatronics Engineering |
| 7 | Engineering & Technology | PG | Robotics & Automation | 2024 | -- | Mechanical Engineering |
| 8 | Engineering & Technology | UG | Robotics and Artificial Intelligence | 2024 | -- | Robotics and Artificial Intelligence |

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

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

| Name of the Department | Having Allied Departments | Name of the Program | Program Level |
|---|---|---|---|
| Civil Engineering | No | Civil Engineering | UG |
| Mechatronics Engineering | Yes | Mechatronics Engineering | UG |
| Computer Engineering | Yes | Computer Engineering | UG |

| | | | |
|---|---|---|---|
| Mechanical Engineering | Yes | Mechanical Engineering | UG |

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

| Allied Department/Cluster Name | Program Name | Program Level |
|---|---|---|
| Mechanical Engineering | Robotics & Automation | PG |
| Mechanical Engineering | Mechanical Engineering | UG |
| Robotics and Artificial Intelligence | Robotics and Artificial Intelligence | UG |

# PART-B: Program information

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

Table No. B1: Program details.
A. List of the Programs Offered by the Department:

| SR.NO. | PROGRAM NAME | PROGRAM APPLIED LEVEL | YEAR OF START / YEAR OF CLOSED | SANCTIONED INTAKE | INCREASE/DECREASE INTAKE (if any) | YEAR OF INCREASE/DECREASE | CURRENT INTAKE | YEAR OF AICTE APPROVAL | AICTE/COMPETENT AUTHORITY ARROVAL DETAILS | ACCREDITATION STATUS | FROM | TO | NO. OF TIMES PROGRAM ACCREDITED | PROGRAM DURATION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Mechatronics Engineering | UG | 2020 / -- | 30 | Yes | 2023 | 60 | 2023 | . Western/1-36460607822/2023/EOA Dated 02.06.2023 | Applying first time | -- | -- | 0 | 4 |

| Sanctioned Intake for Last Five Years for the Mechatronics Engineering | |
|---|---|
| **Academic Year** | **Sanctioned Intake** |
| 2025-26 | 60 |
| 2024-25 | 60 |
| 2023-24 | 60 |
| 2022-23 | 30 |
| 2021-22 | 30 |
| 2020-21 | 30 |

List of the Allied Departments/Cluster and Programs:

| SR.NO. | ALLIED DEPARTMENT NAME | PROGRAM NAME | PROGRAM APPLIED LEVEL | YEAR OF START / YEAR OF CLOSED | SANCTIONED INTAKE | INCREASE/DECREASE INTAKE (if any) | YEAR OF INCREASE/DECREASE | CURRENT INTAKE | YEAR OF AICTE APPROVAL | AICTE/COMPETENT AUTHORITY ARROVAL DETAILS | ACCREDITATION STATUS | FROM | TO | NO. OF TIMES PROGRAM ACCREDITED | PROGRAM DURATION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Mechanical Engineering | Mechanical Engineering | UG | 2008 / -- | 60 | Yes | 2025 | 90 | 2025 | Western/1-44642705464/2025/EOA Dated 05.04.2025 | Applying first time | -- | -- | 0 | 4 |

| SR.NO. | ALLIED DEPARTMENT NAME | PROGRAM NAME | PROGRAM APPLIED LEVEL | YEAR OF START / YEAR OF CLOSED | SANCTIONED INTAKE | INCREASE/DECREASE INTAKE (if any) | YEAR OF INCREASE/DECREASE | CURRENT INTAKE | YEAR OF AICTE APPROVAL | AICTE/COMPETENT AUTHORITY ARROVAL DETAILS | ACCREDITATION STATUS | FROM | TO | NO. OF TIMES PROGRAM ACCREDITED | PROGRAM DURATION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sanctioned Intake for Last Five Years for the Mechanical Engineering** | | | | | | | | | | | | | | | |
| **Academic Year** | **Sanctioned Intake** | | | | | | | | | | | | | | |
| 2025-26 | 90 | | | | | | | | | | | | | | |
| 2024-25 | 60 | | | | | | | | | | | | | | |
| 2023-24 | 60 | | | | | | | | | | | | | | |
| 2022-23 | 60 | | | | | | | | | | | | | | |
| 2021-22 | 60 | | | | | | | | | | | | | | |
| 2020-21 | 90 | | | | | | | | | | | | | | |
| 2 | Mechanical Engineering | Robotics & Automation | PG | 2024 / -- | 6 | No | NA | 6 | 2024 | Western/1-43660085854/2024/EOA Dated 13.05.2024 | Not eligible for accreditation | -- | -- | 0 | 2 |
| | | | | | | | | | | | | | | | |
| 3 | Robotics and Artificial Intelligence | Robotics and Artificial Intelligence | UG | 2024 / -- | 60 | No | NA | 60 | 2024 | Western/1-43660085854/2024/EOA Dated 13.05.2024 | Not eligible for accreditation | -- | -- | 0 | 4 |
| | | | | | | | | | | | | | | | |

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

| | |
|---|---|
| A. Name of the HoD : | Dr Sonali Shrikant Patil |
| B. Nature of appointment: | Regular |
| C. Qualification: | Ph.D |

**B3. Program Details**

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

| Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable) | 2025-26 (CAY) | 2024-25 (CAYm1) | 2023-24 (CAYm2) | 2022-23 (CAYm3) | 2021-22 (CAYm4) | 2020-21 (CAYm5) | 2019-20 (CAYm6) |
|---|---|---|---|---|---|---|---|
| N=Sanctioned intake of the program (as per AICTE /Competent authority) | 60 | 60 | 60 | 30 | 30 | 30 | 0 |
| 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 | 58 | 58 | 47 | 30 | 15 | 25 | 0 |
| N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats | 0 | 14 | 19 | 7 | 18 | 9 | 0 |
| N3=Separate division if any | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| N4=Total no. of students admitted in the 1st year via all supernumerary quotas | 3 | 6 | 6 | 4 | 4 | 3 | 0 |
| Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points. | 61 | 78 | 72 | 41 | 37 | 37 | 0 |

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

**B4. Enrolment Ratio in the First Year**

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

| Year of entry | N (From Table 4.1) | N1 (From Table 4.1) | N4 (From Table 4.1) | Enrollment Ratio [(N1/N)*100] |
|---|---|---|---|---|
| 2025-26 (CAY) | 60 | 58 | 3 | 101.67 |
| 2024-25 (CAYm1) | 60 | 58 | 6 | 106.67 |
| 2023-24 (CAYm2) | 60 | 47 | 6 | 88.33 |

Average [ (ER1 + ER2 + ER3) / 3 ] = 98.89≡ 20.00

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

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

| Item | (2021-22) LYG | (2020-21) LYGm1 | (2019-20) LYGm2 |
|---|---|---|---|
| A*= (No. of students admitted in the 1st year of that batch and those actually admitted in the 2nd year via lateral entry, plus the number of students admitted through multiple entry (if any) and separate division if applicable, minus the number of students who exited through multiple entry (if any). | 48.00 | 39.00 | 0.00 |
| B=No. of students who graduated from the program in the stipulated course duration | 24.00 | 34.00 | 0.00 |
| Success Rate (SR)= (B/A) * 100 | 50.00 | 87.18 | 0.00 |

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 68.59

**B6. Academic Performance of the First-Year Students of the Program**

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

| Academic Performance | CAYm1( 2024-25 ) | CAYm2( 2023-24 ) | CAYm3 ( 2022-23 ) |
|---|---|---|---|
| Mean of CGPA or mean percentage of all successful students(X) | 5.84 | 6.19 | 5.28 |
| Y=Total no. of successful students | 56.00 | 45.00 | 22.00 |
| Z=Total no. of students appeared in the examination | 63.00 | 52.00 | 32.00 |
| API [X*(Y/Z)] | 5.19 | 5.36 | 3.63 |

Average API[ (AP1+AP2+AP3)/3 ] : 4.73

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

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

| Academic Performance | CAYm1 ( 2024-25 ) | CAYm2 ( 2023-24 ) | CAYm3 ( 2022-23 ) |
|---|---|---|---|
| X=(Mean of 2nd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 2rd year/10) | 7.48 | 6.65 | 5.37 |
| Y=Total no. of successful students | 52.00 | 26.00 | 26.00 |
| Z=Total no. of students appeared in the examination | 64.00 | 29.00 | 37.00 |
| API [ X * (Y/Z) ] | 6.08 | 5.96 | 3.77 |

Average API [ (AP1 + AP2 + AP3)/3 ] : 5.27

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

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

| Academic Performance | CAYm1 (2024-25) | CAYm2 (2023-24) | CAYm3 (2022-23) |
|---|---|---|---|
| X=(Mean of 3rd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 3rd year/10) | 7.57 | 7.00 | 6.86 |
| Y=Total no. of successful students | 23.00 | 24.00 | 34.00 |
| Z=Total no. of students appeared in the examination | 26.00 | 26.00 | 37.00 |
| API [ X*(Y/Z) ]: | 6.70 | 6.46 | 6.30 |

Average API [ (AP1 + AP2 + AP3)/3 ] : 6.49

**B9. Placement, Higher Studies, and Entrepreneurship**

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

| Item | LYG (2021-22) | LYGm1(2020-21) | LYGm2(2019-20) |
|---|---|---|---|
| FS*=Total no. of final year students | 48.00 | 39.00 | 0.00 |
| X=No. of students placed | 19.00 | 23.00 | 0.00 |
| Y=No. of students admitted to higher studies | 0.00 | 2.00 | 0.00 |
| Z= No. of students taking up entrepreneurship | 0.00 | 0.00 | 0.00 |
| Placement Index(P) = (((X + Y + Z)/FS) * 100): | 39.58 | 64.10 | 0.00 |

Average Placement Index = (P_1 + P_2 + P_3)/3: 51.84 Placement Index Points:

# PART C: Faculty Details in Department and Allied Departments

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

**C1. Faculty details of Department and Allied Departments**

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

| Sr.No | Name of the Faculty | PAN No. | Highest degree | University | Area of Specialization | Date of Joining in this Institution | Experience in years in current institute | Designation at Time Joining in this Institution | Present Designation | The date on which Designated as Professor/ Associate Professor if any | Nature of Association (Regular/ Contract/ Ad hoc) | Currently Associated (Y/N) | In case of NO, Date of Leaving | IS HOD? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Dr Sonali Shrikant Patil | XXXXXXX80A | Ph.D | Savitribai Phule Pune University Pune | Design Engineering | 04/08/2022 | 3.6 | Assistant Professor | Associate Professor | 01/07/2025 | Regular | Yes | | Yes |
| 2 | Dr.Jayashree Deka | XXXXXXX84B | Ph.D | Assam Don Bosco University,Guwahati,Assam | Electronics Design & Technology | 14/06/2024 | 1.8 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 3 | Ms.Mayuri Sanjay Mhaske | XXXXXXX06R | M.E. | Savitribai Phule Pune University | Design Engineering | 14/06/2024 | 1.8 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 4 | Dr.Yogita Subhash Pimpale | XXXXXXX00R | Ph.D | Lovely Professional University | Instrumentation and control Engineering | 01/07/2024 | 1.7 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 5 | Mrs.Madhuri Pradip Shejal | XXXXXXX10C | M.E. | Savitribai Phule Pune University Pune | signal processing | 16/06/2025 | 0.8 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 6 | Mr.Akshay Ujjwal Padekar | XXXXXXX31F | M.Tech | National Institute of Technology Karnataka, Surathkal | Manufacturing Engineering | 16/06/2025 | 0.8 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 7 | Ms.Shital Raybhan Khande | XXXXXXX46B | M.E. | Savitribai Phule Pune University | VLSI & ES | 01/07/2025 | 0.7 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 8 | Mr.Atul Gorakhnath Karle | XXXXXXX50L | M.E. | Savitribai Phule Pune University | VLSI & ES | 01/07/2025 | 0.7 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | Ms.Apurva Rajiv Ulhe | XXXXXXX51Q | M.E. | Savitribai Phule Pune University Pune | Power Electronics and Drive | 04/10/2021 | 3.7 | Assistant Professor | Assistant Professor | | Regular | No | 30/05/2025 | No |
| 10 | Dr.Gargi Sanjeev Yadav | XXXXXXX67L | Ph.D | Indian Institute of Technology Delhi | Mechanical engineering | 01/07/2023 | 1.3 | Assistant Professor | Assistant Professor | | Regular | No | 23/10/2024 | No |
| 11 | Mr.Shashikant Vasant Golande | XXXXXXX71N | M.E. | Savitribai Phule Pune University | electrical power system | 01/06/2023 | 0.11 | Assistant Professor | Assistant Professor | | Regular | No | 30/05/2024 | No |
| 12 | Mr. Sanket Ichharam Barde | XXXXXXX75J | M.E. | Savitribai Phule Pune University | electrical power system | 16/01/2025 | 1.1 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 13 | Dr. Meghna Ranjit Yashwante | XXXXXXX13E | Ph.D | Savitribai Phule Pune University | Electrical | 01/06/2009 | 16.9 | Assistant Professor | Professor | 01/07/2025 | Regular | Yes | | No |
| 14 | Mr. Harshal Dattatray Vaidya | XXXXXXX42F | M.E. | Dr. Babasaheb Ambedkar Marathwada University,Aurangabad | Electrical Drives and Control | 01/07/2023 | 2.7 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 15 | Dr.Yogini Dilip Borole | XXXXXXX15D | Ph.D | Dr Babasaheb Ambedkar Marathwada University | Electronics VLSI | 10/07/2024 | 1.7 | Associate Professor | Professor | 01/07/2025 | Regular | Yes | | No |
| 16 | Mr Vishal Vishwas Kulkarni | XXXXXXX62R | M.E. | Savitribai Phule Pune University | Design Engineering | 06/06/2022 | 3.8 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 17 | Mr.Nilesh Chandrakant Dhobale | XXXXXXX05A | M.Tech | VIT Vellore | Mechatronics | 15/02/2024 | 2 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 18 | Dr Praful Kumar Ganti | XXXXXXX93K | Ph.D | National Institute of Technology Rourkela | Electrical | 15/06/2023 | 0.11 | Assistant Professor | Assistant Professor | | Regular | No | 30/05/2024 | No |
| 19 | Mrs. Pallavi Vivek Munde | XXXXXXX79M | M.E. | Shivaji University, Kolhapur | E & TC | 28/01/2026 | 0 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 20 | Dr.Mukesh Gitaram Ghogare | XXXXXXX01Q | Ph.D | Savitribai Phule Pune University, Pune | Instrumentation and Control Engineering | 01/07/2023 | 2 | Associate Professor | Associate Professor | | Regular | No | 30/06/2025 | No |

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

| Sr.No | Name of the Faculty | PAN No. | APAAR 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) | Currently Associated (Y/N) | In case of NO, Date of Leaving | IS HOD? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Dr. Anjali Jitendra Joshi | XXXXXXX24C | XXXXXXXXX516 | Ph.D | RTM Nagpur University | Machine Design | 29/04/2017 | 8.10 | Associate Professor | Professor | 01/07/2025 | Regular | Yes | | Yes |
| 2 | Dr. Girish L. Allampallewar | XXXXXXX92M | XXXXXXXXX266 | Ph.D | Sant Gadgebaba Amravati University, Amravati | CAD-CAM | 26/08/2011 | 14.6 | Assistant Professor | Associate Professor | 01/07/2023 | Regular | Yes | | No |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | Dr. Dayanand Pandurang Yesane | XXXXXXX85N | XXXXXXXXX411 | Ph.D | Savitribai Phule Pune University, Pune | Design Engineering | 11/05/2009 | 16.9 | Assistant Professor | Associate Professor | 01/01/2026 | Regular | Yes | | No |
| 4 | Mr. Eknath Dnyandeo Kurhe | XXXXXXX94F | XXXXXXXXX186 | M.E. | Savitribai Phule Pune University, Pune | Heat Power | 13/08/2008 | 17.6 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 5 | Mr. Naresh Bharateshwar Dhamane | XXXXXXX14G | XXXXXXXXX450 | M.E. | Savitribai Phule Pune University, Pune | Heat Power | 21/06/2012 | 13.8 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 6 | Dr. Sachin Vyasrao Mutalikdesai | XXXXXXX28R | XXXXXXXXX919 | Ph.D | Savitribai Phule Pune University, Pune | Heat Power | 06/06/2022 | 3.8 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 7 | Mr. Rajesh Pundlikrao Dharmale | XXXXXXX24L | XXXXXXXXX397 | M.E. | Savitribai Phule Pune University, Pune | Manufacturing and Automation | 06/07/2022 | 3.7 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 8 | Dr.Bhuvaneshwar Dnyandeo Patil | XXXXXXX44Q | XXXXXXXXX432 | Ph.D | SJJT University,Jhunjhunu, Rajasthan | Design Engineering | 30/12/2020 | 5.1 | Assistant Professor | Associate Professor | 01/07/2025 | Regular | Yes | | No |
| 9 | Mr. Hrishikesh Uttamrao Gadekar | XXXXXXX64Q | XXXXXXXXX041 | M.E. | Solapur University | Design Engineering | 16/06/2025 | 0.8 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 10 | Mr. Sudhir Sarjerao More | XXXXXXX10L | XXXXXXXXX771 | M.Tech | IIT Bombay | Manufacturing Engineering | 05/01/2012 | 14.1 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 11 | Dr.Rupesh V. Bhortake | XXXXXXX52J | NA | Ph.D | North Maharshtra University Jalgaon | Production Engineering | 01/12/2017 | 8.2 | Professor | Professor | | Regular | Yes | | No |
| 12 | Dr. Amol Sadashiv Bhanage | XXXXXXX55E | XXXXXXXXX484 | Ph.D | Vellore Institute of Technology, Vellore | Design, CAD/CAM | 08/07/2013 | 12.7 | Assistant Professor | Professor | 01/07/2025 | Regular | Yes | | No |
| 13 | Dr.Nilesh Nandkumar Satonkar | XXXXXXX23L | XXXXXXXXX859 | Ph.D | Vellore Institute of Technology, Chennai | CAD/CAM | 12/02/2024 | 2 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 14 | Ms. Shilpa Tambe | XXXXXXX91C | XXXXXXXXX952 | M.E. | Savitribai Phule Pune University, Pune | Design Engineering | 16/06/2025 | 0.8 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 15 | Mr.Dhananjay Manohar Bhoge | XXXXXXX00G | XXXXXXXXX076 | M.E. | Savitribai Phule Pune University, Pune | Design Engineering | 26/02/2011 | 15 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 16 | Mr. Rohit Purushottam Polas | XXXXXXX64H | XXXXXXXXX907 | M.Tech | Savitribai Phule Pune University, Pune | Thermal Engineering | 06/04/2017 | 8.10 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 17 | Mr.Shankar Dattatray Deshmukh | XXXXXXX49R | XXXXXXXXX150 | M.E. | University Of Mumbai | E&TC | 19/06/2025 | 0.8 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 18 | Mr. Martand Pandurang Pandagale | XXXXXXX67J | XXXXXXXXX849 | M.Tech | SRTMU Nanded | CAD CAM | 01/12/2025 | 0.2 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |

**C2. Student-Faculty Ratio (SFR)**

No. of UG(Engineering) programs in Department including allied departments/ clusters (UGn):
UG1=1st UG program
UGn=nth UG program

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

No. of UG Programs in the Department3 No. of PG Programs in the Department1

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

| **Description** | **CAY(2025-26)** | **CAYm1 (2024-25)** | **CAYm2 (2023-24)** |
|---|---|---|---|
| UG1.B | 66 | 66 | 33 |
| UG1.C | 66 | 33 | 33 |
| UG1.D | 33 | 33 | 33 |
| **UG1: Mechatronics Engineering** | **165** | **132** | **99** |
| UG2.B | 66 | 0 | 0 |
| UG2.C | 0 | 0 | 0 |
| UG2.D | 0 | 0 | 0 |
| **UG2: Robotics and Artificial Intelligence** | **66** | **0** | **0** |
| UG3.B | 66 | 66 | 66 |
| UG3.C | 66 | 66 | 66 |
| UG3.D | 66 | 66 | 99 |
| **UG3: Mechanical Engineering** | **198** | **198** | **231** |
| PG1.A | 6 | 6 | 0 |
| PG1.B | 6 | 0 | 0 |
| **PG1: Robotics & Automation** | **12** | **6** | **0** |
| DS=Total no. of students in all UG and PG programs in the Department | 165 | 132 | 99 |
| AS=Total no. of students of all UG and PG programs in allied departments | 276 | 204 | 231 |
| S=Total no. of students in the Department (DS) and allied departments (AS) | **S1=** 441 | **S2=** 336 | **S3=** 330 |
| DF=Total no. of faculty members in the Department | 14 | 11 | 9 |
| AF= Total no. of faculty members in the allied Departments | 17 | 14 | 13 |
| F=Total no. of faculty members in the Department (DF) and allied Departments (AF) | **F1=** 31 | **F2=** 25 | **F3=** 22 |
| FF=The faculty members in F who have a 100% teaching load in the first-year courses | 3 | 2 | 2 |
| Student Faculty Ratio (SFR)=S/(F-FF) | **SFR1= 15.75** | **SFR2= 14.61** | **SFR3= 16.50** |
| Average SFR for 3 years | **SFR= 15.62** | | |

**C3. Faculty Qualification**

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

Table No.C3.1: Faculty qualification.

| Year | X | Y | RF | FQ = 2.5 x [(10X + 4Y) / RF )] |
|---|---|---|---|---|
| 2025-26(CAY) | 12 | 19 | 22.00 | 22.27 |
| 2024-25(CAYm1) | 12 | 13 | 16.00 | 26.88 |
| 2023-24(CAYm2) | 9 | 13 | 16.00 | 22.19 |

**C4. Faculty Cadre Proportion**

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

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

| Year | Professors | | Associate Professors | | Assistant Professors | |
|---|---|---|---|---|---|---|
| | Required RF1 | Available AF1 | Required RF2 | Available AF1 | Required RF3 | Available AF3 |
| 2025-26 | 2.00 | 5.00 | 4.00 | 3.00 | 14.00 | 23.00 |
| 2024-25 | 1.00 | 1.00 | 3.00 | 6.00 | 11.00 | 18.00 |
| 2023-24 | 1.00 | 1.00 | 3.00 | 4.00 | 11.00 | 17.00 |
| Average | RF1=1.33 | AF1=2.33 | RF2=3.33 | AF2=4.33 | RF2=12.00 | AF2=19.33 |

**C5. Visiting/Adjunct Faculty/Professor of Practice**

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

**(CAYm1)**

| S.No | Name of the Person | Designation | Organization | Name of the Course | No. of hours handled |
|---|---|---|---|---|---|
| 1 | Mr.Ashish Shelake | Sr. Trainer | Graphix Technologies Pvt.Ltd Pune | Solid Works | 30.00 |
| 2 | Mr.Ketan Kadam | Sr. Trainer | Graphix Technologies Pvt.Ltd Pune | CATIA | 50.00 |

**(CAYm2)**

**(CAYm3)**

**C6. Academic Research**

Table No. C6.1: Faculty publication details.

| S.No. | Item | 2024-25 (CAYm1) | 2023-24 (CAYm2) | 2022-23 (CAYm3) |
|---|---|---|---|---|
| 1 | No. of peer reviewed journal papers published | 9 | 2 | 3 |

| | | | | |
|---|---|---|---|---|
| 2 | No. of peer reviewed conference papers published | 6 | 0 | 0 |
| 3 | No. of books/book chapters published | 3 | 0 | 0 |

**C7. Sponsored Research Project**

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

**(CAYm1)**

| PI Name | Co-PI names if any | Name of the Dept., where project is sanctioned | Project Title* | Name of the Funding agency | Duration of the project | Amount(Lacs) i.e. 15,25,000=15.25 |
|---|---|---|---|---|---|---|
| Dr. Yogini Borole | NA | Mechatronics | First International Conference on NEXT-GEN AIML | ANRF (Anusandhan National research Funding agency | 2 days | 1.50 |
| Dr. Yogini Borole | Dr. Girish Allampallewar | Mechatronics | ATV(BAJA) | RAMBAL, Chennai | 1 year | 5.00 |
| Dr. Yogini Borole | NA | Mechatronics | CEEE INAE | Infosys | 1 year | 0.50 |
| Dr. Yogini Borole | NA | Mechatronics | Paper Publication | Shibaura Institute of Technology, Tokyo, Japan | 1 year | 2.40 |
| Dr. Yogini Borole | NA | Mechatronics | Paper Publication | Shibaura Institute of Technology, Tokyo, Japan | 1 year | 3.60 |
| | | | | | | Amount received (Rs.):13.00 |

**(CAYm2)**

| PI Name | Co-PI names if any | Name of the Dept., where project is sanctioned | Project Title* | Name of the Funding agency | Duration of the project | Amount(Lacs) i.e. 15,25,000=15.25 |
|---|---|---|---|---|---|---|
| Nil | Nil | Nil | Nil | Nil | Nil | 0.00 |
| | | | | | | Amount received (Rs.):0.00 |

**(CAYm3)**

| PI Name | Co-PI names if any | Name of the Dept., where project is sanctioned | Project Title* | Name of the Funding agency | Duration of the project | Amount(Lacs) i.e. 15,25,000=15.25 |
|---|---|---|---|---|---|---|
| Nil | Nil | Nil | Nil | Nil | Nil | 0.00 |
| | | | | | | Amount received (Rs.):0.00 |

**Total Amount (Lacs) Received for the Past 3 Years: 13.00**

**Note*:**

- Only sponsored research projects will be considered. Infrastructure-based projects will not be considered here.

**C8. Consultancy Work**

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

**(CAYm1)**

| PI Name | Co-PI names if any | Name of the Dept., where project is sanctioned | Project Title* | Name of the Funding agency | Duration of the project | Amount(Lacs) i.e. 15,25,000=15.25 |
|---|---|---|---|---|---|---|
| Nil | Nil | Nil | Nil | Nil | Nil | 0.00 |
| | | | | | | Amount received (Rs.):0.00 |

**(CAYm2)**

| PI Name | Co-PI names if any | Name of the Dept., where project is sanctioned | Project Title* | Name of the Funding agency | Duration of the project | Amount(Lacs) i.e. 15,25,000=15.25 |
|---|---|---|---|---|---|---|
| Nil | Nil | Nil | Nil | Nil | Nil | 0.00 |
| | | | | | | Amount received (Rs.):0.00 |

**(CAYm3)**

| PI Name | Co-PI names if any | Name of the Dept., where project is sanctioned | Project Title* | Name of the Funding agency | Duration of the project | Amount(Lacs) i.e. 15,25,000=15.25 |
|---|---|---|---|---|---|---|
| Nil | Nil | Nil | Nil | Nil | Nil | 0.00 |
| | | | | | | Amount received (Rs.):0.00 |

**Total amount (Lacs) received for the past 3 years: 0.00**

**Note*:**

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

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

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

**(CAYm1)**

| Faculty name | Project title/ Support for Activity | Duration of the project | Amount(Lacs) i.e. 15,25,000=15.25 | Amount Utilized(Lacs) i.e. 15,25,000=15.25 | Outcomes of the project |
|---|---|---|---|---|---|
| Mr. Nilesh Dhobale | Lean Manufacturing Practices | 1 Year | 0.06 | 0.06 | Faculty certified in Lean Manufacturing Practices and Contributes to curriculum enrichment |
| Mr. Vishal Kulkarni | Edgeline Championship (Gokart) | 1 Year | 2.76 | 2.76 | Developed valuable hands-on experience in designing, fabricating, and testing Go-Karts |
| Mr. Vishal Kulkarni | Aravalli Terrain Vehicle Championship | 1 Year | 1.69 | 1.69 | Enabled students to enhance their practical knowledge in vehicle modification, testing, and performance evaluation |
| Dr. Sonali Patil | World Robotics Championship Technoxian 2024 | 1 Year | 0.14 | 0.14 | Enhanced knowledge in electric drives, battery systems, and control, along with improved technical, teamwork, and problem-solving skills |
| | | | Amount received (Rs.): 4.65 | | |

**(CAYm2)**

| Faculty name | Project title/ Support for Activity | Duration of the project | Amount(Lacs) i.e. 15,25,000=15.25 | Amount Utilized(Lacs) i.e. 15,25,000=15.25 | Outcomes of the project |
|---|---|---|---|---|---|
| Ms. Apurva ulhe | Faculty program on Gender Sensitization | 5 Days | 0.01 | 0.01 | Improved awareness of gender equality and inclusiveness |
| Mr. Vishal Kulkarni | Indian Superkarting Championship | 1 Year | 1.77 | 1.77 | Gained practical experience in Go-Kart design, fabrication, and performance testing |
| | | | Amount received (Rs.): 1.78 | | |

**(CAYm3)**

| Faculty name | Project title/ Support for Activity | Duration of the project | Amount(Lacs) i.e. 15,25,000=15.25 | Amount Utilized(Lacs) i.e. 15,25,000=15.25 | Outcomes of the project |
|---|---|---|---|---|---|
| Mr. Vishal Kulkarni | Aravalli Terrain vehicle Championship (2023) | 1 Year | 1.97 | 1.97 | Provided students with valuable hands-on experience in the design, fabrication, and testing of ATVs |
| Mr. Vishal Kulkarni | Auto India racing Championship (2023) | 1 Year | 0.56 | 0.56 | Developed problem-solving skills by addressing real-time challenges during fabrication and dynamic events |
| | | | Amount received (Rs.): 2.53 | | |

**Total amount (Lacs) received for the past 3 years : 8.96**

# PART D: Laboratory Infrastructure in the Department

## (Data to be filled in for the Department)

**D1. Adequate and Well-Equipped Laboratories, and Technical Manpower**

Table No.D1.1: List of laboratories and technical manpower.

| Sr. No | Name of the Laboratory | Number of students per set up(Batch Size) | Name of the Important Equipment | Weekly utilization status(all the courses for which the lab is utilized) | Technical Manpower Support | | |
|---|---|---|---|---|---|---|---|
| | | | | | Name of the Technical staff | Designation | Qualification |
| 1 | Software Lab | 25 | PCs with specifications: Intel Core i3 (3.1 GHz) Processor, Intel DG 61 Motherboard, 2 GB DDR3 RAM, 250 GB SATA HDD, LG DVD Writer, ATX Cabinet with | 24 hours per w | Mrs. P. A. Patil | Lab Assistant | Diploma (E&TC) |
| 2 | Electrical Machines and Drives Lab | 25 | • 1 HP DC Shunt Motor (with mechanical loading arrangement) • 1 HP 3-Phase Induction Motor (with mechanical loading arrangement) • 3 HP AC | 12 hours per w | Mr. B. V. Kotgyale | Lab Assistant | B.E. |
| 3 | Embedded System Design Lab | 25 | • PIC Microcontroller Development Board 8051 • Microcontroller Development Board (with in-system programming facility) • OP AMP Circuit Kit (to measure | 16 hours per w | Mr. H. R. Mahadik | Lab Assistant | Graduate, Diploma in Hardw |
| 4 | Industrial Automation Lab | 25 | • Advanced PLC Programming Trainer Kit • HMI (Human Machine Interface) Module with Programming • SCADA Software • AC Servo Motor X-Y Coordinate | 06 hours per w | Mr. H. R. Mahadik | Lab Assistant | Graduate, Diploma in Hardw |
| 5 | Metrology Lab | 25 | • Optical Flat Monochromatic Light Unit • Auto-Collimator and Angle Decker • Tool Maker's Microscope • Profile Projector • Electronic Comparator (Twin | 06 hours per w | Mr. B. B. Khavale | Lab Assistant | ITI |
| 6 | Heat and Mass Transfer Lab | 25 | • Thermal Conductivity of Insulating Powder Apparatus • Thermal Conductivity of Metal Rod Apparatus • Natural Convection Apparatus • Forced Convection | 06 hours per w | Mr. B. B. Khavale | Lab Assistant | ITI |
| 7 | Engineering Metallurgy Lab/Solid Mechanics Lab (shared) | 25 | • Impact Testing Machine • Brinell Hardness Tester • Rockwell Hardness Tester • Universal Testing Machine (UTM) • Torsion Testing Machine | 12 hours per w | Mr. S. L. Adsure | Technical Assistant | Diploma (Mechanical) |
| 8 | Thermodynamics Lab/ Hydraulics and Pneumatics Lab (shared) | 25 | • Joule's Experiment Apparatus • Bomb Calorimeter • Junker's Gas Calorimeter • Hydraulic Circuit Trainer • Pneumatic Circuit Trainer • PLC based Pneumatic | 06 hours per w | Mr. P. S. Thombare | Technical Assistant | Diploma (Mechanical) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 9 | Dynamics Of Machinery Lab / Kinematics of Machinery Lab (shared) | 25 | • Shock Absorber Test Rig • Rion 2-Channel FFT Analyser • Motorised Gyroscope • Epicyclic Gear Train • | 12 hours per w | Mr. S. L. Adsure | Technical Assistant | Diploma (Mechanical) |
| 10 | Fluid Mechanics Lab (shared) | 25 | • Bernoulli's Apparatus • Major/Minor Loss Apparatus • Reynold's Apparatus • Venturimeter & Orificemeter • | 06 hours per w | Mr. S. L. Adsure | Technical Assistant | Diploma (Mechanical) |
| 11 | Workshop (shared) | 25 | • CNC Lathe Machine • Conventional Lathe Machines • Milling Machine • Radial Arm Drilling Machine • | 03 hours per w | Mr. B. B. Khavale | Lab Assistant | ITI |

**D2. Safety Measures in Laboratories**

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

| Sr. No | Laboratory Name | Safety Measures |
|---|---|---|
| 1 | Software Lab | Basic safety measures: • Fire extinguishers, water and sand buckets, and first aid box are available in the department for emergency response. • Electrical safety is ensured through proper earthing and protection devices such as MCB and fuses. • Safety instructions and Do's and Don'ts boards are displayed in laboratories for student awareness. • CCTV surveillance is provided in all laboratories for safety and monitoring. • Students must check equipment before use and report any defects to the laboratory instructor. • Student login–logout registers and laboratory stock registers are maintained for monitoring usage and equipment inventory. • Students must properly switch off computers before leaving the laboratory. Lab specific safety measures: • Only authorized students are allowed to access the computers and network resources in the software laboratory. • Students must not tamper with power connections, LAN cables, UPS systems, or internal computer hardware. • Installation of unauthorized software or modification of system settings is strictly prohibited. • External storage devices must be scanned for viruses before use to prevent malware infection. • Food and beverages are not permitted inside the laboratory to protect computer equipment. • Students must properly log out and shut down the systems after use and report any hardware or software malfunction to the laboratory instructor. |
| 2 | Electrical Machines and Drives Lab | Basic safety measures: • Fire extinguishers, water and sand buckets, and first aid box are available in the department for emergency response. • Electrical safety is ensured through proper earthing and protection devices such as MCB and fuses. • Safety instructions and Do's and Don'ts boards are displayed in laboratories for student awareness. • CCTV surveillance is provided in all laboratories for safety and monitoring. • Students must check equipment before use and report any defects to the laboratory instructor. • Student login–logout registers and laboratory stock registers are maintained for monitoring usage and equipment inventory. • Students must properly switch off equipment before leaving the laboratory. Lab-specific safety measures: • Electrical connections for DC motors, induction motors, synchronous motors, alternators, and transformers are verified by the laboratory instructor before switching ON the supply. • Proper fastening of mechanical loading arrangements and couplings is ensured before operating electrical machines. • Students must keep hands, loose clothing, and tools away from rotating shafts and moving parts during machine operation. • Rated voltage, current, and load limits of machines must not be exceeded during experiments. • Power supply must be switched OFF before making or modifying circuit connections. • Any abnormal noise, vibration, overheating, or sparking must be immediately reported to the laboratory instructor. |
| 3 | Embedded System Design Lab | Basic safety measures: • Fire extinguishers, water and sand buckets, and first aid box are available in the department for emergency response. • Electrical safety is ensured through proper earthing and protection devices such as MCB and fuses. • Safety instructions and Do's and Don'ts boards are displayed in laboratories for student awareness. • CCTV surveillance is provided in all laboratories for safety and monitoring. • Students must check equipment before use and report any defects to the laboratory instructor. • Student login–logout registers and laboratory stock registers are maintained for monitoring usage and equipment inventory. • Students must properly switch off equipment before leaving the laboratory. Lab specific safety measures: • Circuit connections for microcontroller development boards and electronic circuit kits are verified by the laboratory instructor before switching ON the power supply. • Power supply must be switched OFF before making or modifying circuit connections. • Proper polarity and rated voltage levels are maintained to prevent damage to ICs and circuit kits. • Students must avoid short circuits and improper wiring during experiments. • Microcontroller boards, ICs, and electronic components must be handled carefully to prevent damage. • Any overheating, malfunction, or burning smell must be immediately reported to the laboratory instructor. |
| 4 | Industrial Automation Lab | Basic safety measures: • Fire extinguishers, water and sand buckets, and first aid box are available in the department for emergency response. • Electrical safety is ensured through proper earthing and protection devices such as MCB and fuses. • Safety instructions and Do's and Don'ts boards are displayed in laboratories for student awareness. • CCTV surveillance is provided in all laboratories for safety and monitoring. • Students must check equipment before use and report any defects to the laboratory instructor. • Student login–logout registers and laboratory stock registers are maintained for monitoring usage and equipment inventory. • Students must properly switch off equipment before leaving the laboratory. Lab specific safety measures: • Connections for experiments must be verified by the laboratory instructor before switching ON the power supply. • Power supply must be switched OFF before making or modifying connections. • Proper wiring, rated voltage, and polarity must be ensured to prevent equipment damage. • Any malfunction, abnormal noise, or overheating must be immediately reported to the laboratory instructor |

| | | |
|---|---|---|
| 5 | Metrology Lab | Basic safety measures: • Fire extinguishers, water and sand buckets, and first aid box are available in the department for emergency response. • Electrical safety is ensured through proper earthing and protection devices such as MCB and fuses. • Safety instructions and Do's and Don'ts boards are displayed in laboratories for student awareness. • CCTV surveillance is provided in all laboratories for safety and monitoring. • Students must check equipment before use and report any defects to the laboratory instructor. • Student login–logout registers and laboratory stock registers are maintained for monitoring usage and equipment inventory. • Students must properly switch off equipment before leaving the laboratory. Lab specific safety measures: • Students must handle precision and basic measuring instruments carefully to prevent damage. • Proper calibration, rated limits and handling procedures must be followed while using all instruments. • Hands, tools, and loose objects must be kept away from sensitive surfaces and moving parts. • Connections and setup of all instruments must be verified by the laboratory instructor before switching ON the power supply. • Power supply must be switched OFF before making or modifying connections to any instrument. • Any malfunction, abnormal readings, or damage must be immediately reported to the laboratory instructor. |
| 6 | Heat and Mass Transfer Lab | Basic safety measures: • Fire extinguishers, water and sand buckets, and first aid box are available in the department for emergency response. • Electrical safety is ensured through proper earthing and protection devices such as MCB, RCBO, and fuses. • Safety instructions and Do's and Don'ts boards are displayed in laboratories for student awareness. • CCTV surveillance is provided in all laboratories for safety and monitoring. • Students must check equipment before use and report any defects to the laboratory instructor. • Student login–logout registers and laboratory stock registers are maintained for monitoring usage and equipment inventory. • Students must properly switch off equipment before leaving the laboratory. Lab specific safety measures: • Avoid touching heated surfaces during and immediately after experiments to prevent burns. • Ensure power controllers are at zero before switching ON or OFF, and increase voltage gradually during experiments. • Start airflow before heating and maintain it briefly after turning off the heater to protect heating elements. • Gradually reduce power and allow equipment to cool completely before switching off the main supply. • Handle delicate instruments carefully to avoid breakage or miscalibration. • Keep hands, tools, and loose objects away from heated or moving parts. • All electrical connections and setups must be verified by the laboratory instructor before energizing the equipment, and any malfunction, abnormal heating, or damage must be immediately reported. |
| 7 | Engineering Metallurgy Lab /Solid Mechanics Lab (shared) | Basic safety measures: • Fire extinguishers, water and sand buckets, and first aid box are available in the department for emergency response. • Electrical safety is ensured through proper earthing and protection devices such as MCB and fuses. • Safety instructions and Do's and Don'ts boards are displayed in laboratories for student awareness. • CCTV surveillance is provided in all laboratories for safety and monitoring. • Students must check equipment before use and report any defects to the laboratory instructor. • Student login–logout registers and laboratory stock registers are maintained for monitoring usage and equipment inventory. • Students must properly switch off equipment before leaving the laboratory. Lab specific safety measures: • Maintain a safe distance during impact and tensile testing, as specimens can shatter and eject metal fragments. • Ensure all specimens are securely clamped and safety guards are in place before applying load on the Universal Testing Machine or Torsion Testing Machine. • Keep hands and loose clothing clear of heavy weights, moving grips, and pinch points at all times. • Never exceed the maximum load capacity of any testing machine. • Report any hydraulic leaks or unusual mechanical noises to the instructor immediately. |
| 8 | Thermodynamics Lab/ Hydraulics and Pneumatics Lab (shared) | Basic safety measures: • Fire extinguishers, water and sand buckets, and first aid box are available in the department for emergency response. • Electrical safety is ensured through proper earthing and protection devices such as MCB and fuses. • Safety instructions and Do's and Don'ts boards are displayed in laboratories for student awareness. • CCTV surveillance is provided in all laboratories for safety and monitoring. • Students must check equipment before use and report any defects to the laboratory instructor. • Student login–logout registers and laboratory stock registers are maintained for monitoring usage and equipment inventory. • Students must properly switch off equipment before leaving the laboratory. Lab specific safety measures: • Handle pressurized vessels (such as the Bomb Calorimeter) with extreme care; ensure all seals and threads are perfectly secure before pressurizing with oxygen. • Follow strict safety protocols when handling combustible gases and ignition sources for the Junker's Gas Calorimeter, and ensure proper ventilation in the laboratory when burning fuels or releasing gases. • Keep clear of falling weights, moving pulleys, and mechanical parts when operating Joule's Experiment Apparatus, and avoid touching the calorimeter block during electrical heating. • Inspect all hoses, fittings, and couplings for leaks or wear before operating the Hydraulic Circuit Trainer, and never use your bare hands to check for high-pressure fluid leaks. • Ensure all air lines are securely fastened before turning on the main air supply for the Pneumatic Circuit Trainer, and never disconnect hoses while the system is under pressure. • Always isolate the power supply before making, altering, or troubleshooting electrical and data connections on the PLC based Pneumatic Circuit Trainer. • Always depressurize hydraulic and pneumatic systems completely before dismantling circuits, modifying setups, or leaving the workstation. • Continuously monitor temperature gauges, pressure dials, and fluid levels to prevent overheating, thermal hazards, and system overflows. • Allow heated thermodynamic apparatuses to cool completely before touching, cleaning, or disassembling them. |
| 9 | Dynamics of Machinery Lab / Kinematics of Machinery Lab (shared) | Basic safety measures: • Fire extinguishers, water and sand buckets, and first aid box are available in the department for emergency response. • Electrical safety is ensured through proper earthing and protection devices such as MCB and fuses. • Safety instructions and Do's and Don'ts boards are displayed in laboratories for student awareness. • CCTV surveillance is provided in all laboratories for safety and monitoring. • Students must check equipment before use and report any defects to the laboratory instructor. • Student login–logout registers and laboratory stock registers are maintained for monitoring usage and equipment inventory. • Students must properly switch off equipment before leaving the laboratory. Lab specific safety measures: • Ensure all safety guards are in place and mechanical linkages are fully secure before turning on motorized equipment. • Keep hands, hair, and loose clothing strictly away from fast-rotating parts, such as the motorized gyroscope, exposed gear trains, and cams. • Stand clear of test rigs during operation to avoid injury from vibrations, moving linkages, or unexpected component failure. • Do not alter the speed or load of the equipment beyond the prescribed experimental limits. • Ensure the power supply is switched OFF before adjusting belts, gears, or linkages. |

| | | |
|---|---|---|
| 10 | Fluid Mechanics Lab (shared) | Basic safety measures: • Fire extinguishers, water and sand buckets, and first aid box are available in the department for emergency response. • Electrical safety is ensured through proper earthing and protection devices such as MCB and fuses. • Safety instructions and Do's and Don'ts boards are displayed in laboratories for student awareness. • CCTV surveillance is provided in all laboratories for safety and monitoring. • Students must check equipment before use and report any defects to the laboratory instructor. • Student login–logout registers and laboratory stock registers are maintained for monitoring usage and equipment inventory. • Students must properly switch off equipment before leaving the laboratory. Lab specific safety measures: • Ensure all electrical pumps, switches, and connections are properly grounded and kept safely away from water sources. • Handle delicate glass components (such as manometer tubes and rotameters) carefully to avoid breakage. • Open and close hydraulic valves gradually to prevent water hammer, which can damage the pipe networks and gauges. • Exercise high caution when handling and heating oil in the Redwood Viscometer to avoid severe burns and fire hazards. |
| 11 | Workshop (shared) | Basic safety measures: • Fire extinguishers, water and sand buckets, and first aid box are available in the department for emergency response. • Electrical safety is ensured through proper earthing and protection devices such as MCB and fuses. • Safety instructions and Do's and Don'ts boards are displayed in laboratories for student awareness. • CCTV surveillance is provided in all laboratories for safety and monitoring. • Students must check equipment before use and report any defects to the laboratory instructor. • Student login–logout registers and laboratory stock registers are maintained for monitoring usage and equipment inventory. • Students must properly switch off machines before leaving the workshop. Lab specific safety measures: • Mandatory use of closed-toe safety shoes, safety glasses, and proper workshop attire (no loose clothing, ties, or hanging jewelry). • Always use appropriate welding shields, heavy-duty gloves, and protective aprons during arc welding to protect against UV radiation and hot sparks; ensure adequate workspace ventilation. • Never leave a running machine unattended; always power off before making adjustments, measuring workpieces, or cleaning. • Always remove chuck keys and wrenches immediately after securing the workpiece on lathes and drilling machines. • Do not clear sharp metal chips with bare hands; always use a brush or specifically designed tool to avoid severe cuts. |

**D3. Project Laboratory/Research Laboratory**

# PART E: First Year faculty and financial Resources

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

**E1. First Year Student-Faculty Ratio (FYSFR)**

Table No. E1.1: FYSFR details.

| Year | Sanctioned intake of all UG programs (S4) | No. of required faculty (RF4= S4/20) | No. of faculty members in Basic Science Courses & Humanities and Social Sciences including Management courses (NS1) | No. of faculty members in Engineering Science Courses (NS2) | Percentage= No. of faculty members ((NS1*0.8) + (NS2*0.2))/(No. of required faculty (RF4)); Percentage= ((NS1*0.8) +(NS2*0.2))/RF |
|---|---|---|---|---|---|
| 2023-24(CAYm2) | 360 | 18 | 10 | 0 | 44 |
| 2024-25(CAYm1) | 420 | 21 | 10 | 0 | 38 |
| 2025-26(CAY) | 510 | 26 | 13 | 0 | 40 |

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

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

| Items | Budgeted in 2025-26 | Actual Expenses in 2025-26 till | Budgeted in 2024-25 | Actual Expenses in 2024-25 till | Budgeted in 2023-24 | Actual Expenses in 2023-24 till | Budgeted in 2022-23 | Actual Expenses in 2022-23 till |
|---|---|---|---|---|---|---|---|---|
| Infrastructure Built-Up | 0 | 183168.00 | 0 | 0 | 0 | 0 | 0 | 0 |
| Library | 500000.00 | 200216.88 | 100000.00 | 449707.00 | 500000.00 | 465599.00 | 230000.00 | 0 |
| Laboratory equipment | 8600000.00 | 13836259.29 | 5986000.00 | 5446620.81 | 24435000.00 | 26806716.53 | 7446000.00 | 7030831.38 |
| Teaching and non-teaching staff salary | 118946085.90 | 115225042.00 | 86364310.00 | 101411795.00 | 74300480.00 | 78215634.00 | 57229560.00 | 62022284.00 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Outreach Programs | 150000.00 | 130628.32 | 150000.00 | 66658.00 | 125000.00 | 51667.88 | 200000.00 | 81585.09 |
| R&D | 350000.00 | 510602.28 | 910000.00 | 778880.40 | 505000.00 | 588291.62 | 575000.00 | 431249.59 |
| Training, Placement and Industry linkage | 50000.00 | 332593.14 | 100000.00 | 507679.00 | 705000.00 | 82605.58 | 300000.00 | 70587.84 |
| SDGs | 2435000.00 | 3365430.12 | 1800000.00 | 2616788.67 | 5675000.00 | 2989077.00 | 5260000.00 | 4297680.00 |
| Entrepreneurship | 103000.00 | 15500.00 | 75000.00 | 29000.00 | 85000.00 | 18500.00 | 0 | 0 |
| Others, specify | 45337000.00 | 40805641.28 | 33142000.00 | 35750305.61 | 37760600.00 | 31130104.74 | 22812001.00 | 35284284.807 |
| **Total** | **176471085.90** | **174605081.31** | **128627310.00** | **147057434.49** | **144091080.00** | **140348196.35** | **94052561.00** | **109218502.707** |

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

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

| **Items** | **Budgeted in 2025-26** | **Actual Expenses in 2025-26 till** | **Budgeted in 2024-25** | **Actual Expenses in 2024-25 till** | **Budgeted in 2023-24** | **Actual Expenses in 2023-24 till** | **Budgeted in 2022-23** | **Actual Expenses in 2022-23 till** |
|---|---|---|---|---|---|---|---|---|
| Laboratory equipment | 520000.00 | 286268.00 | 1400000.00 | 1350346.00 | 1150000.00 | 727470.00 | 1020000.00 | 896368.00 |
| Software | 0 | 0 | 0 | 0 | 15000.00 | 0 | 0 | 0 |
| SDGs | 100000.00 | 276466.00 | 0 | 212718.00 | 200000.00 | 190574.00 | 225000.00 | 106745.00 |
| Support for faculty development | 75000.00 | 5000.00 | 30000.00 | 0 | 5000.00 | 4535.00 | 0 | 0 |
| R & D | 10000.00 | 0 | 10000.00 | 13820.00 | 10000.00 | 0 | 10000.00 | 0 |
| Industrial Training, Industry expert, Internship | 15000.00 | 10000.00 | 10000.00 | 8750.00 | 10000.00 | 8000.00 | 5000.00 | 4500.00 |
| Miscellaneous Expenses* | 1187000.00 | 1300187.00 | 547500.00 | 1367266 | 1268500.00 | 1170635.00 | 990000.00 | 812921.00 |
| **Total** | **1907000.00** | **1877921.00** | **1997500.00** | **2952900.00** | **2658500.00** | **2101214.00** | **2250000.00** | **1820534.00** |