

## NATIONAL BOARD OF ACCREDITATION

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

|  |  |
|--|--|
| <b>Program Name</b> : Mechanical Engineering | <b>Discipline</b> : Engineering & Technology |
| <b>Level</b> : Under Graduate                | <b>Tier</b> : 2                              |
| <b>Application No</b> : 11562                | <b>Date of Submission</b> : 28-01-2026       |

### PART A- Profile of the Institute

|   |  |
|---|--|
| <b>A1.Name of the Institute</b> : P.S.V.COLLEGE OF ENGINEERING AND TECHNOLOGY   |  |
| Year of Establishment : 2008  | Location of the Institute: Krishnagiri |
| <b>A2. Institute Address</b> :MITTAPALLI, BALINAYANAPALLI (POST), ELATHAGIRI (S.O), KRISHNAGIRI (DISTRICT) PIN CODE: 635 108., KRISHNAGIRI, KRISHNAGIRI, Tamil Nadu, 635108 |  |
| City:Dharmapuri   | State:Tamil Nadu                       |
| Pin Code:635108   | Website:www.psvcet.ac.in               |
| Email:principal@psvcet.ac.in  | Phone No(with STD Code):04343-268333   |
| <b>A3. Name and Address of the Affiliating University (if any):</b>   |  |
| Name of the University : ANNA UNIVERSITY  | City: Chennai                          |
| State : Tamil Nadu  | Pin Code: 600025                       |
| <b>A4. Type of the Institution</b> : Self-Supported Institute   |  |
| <b>A5. Ownership Status</b> : Self financing  |  |

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

- No. of UG programs: **9**
- No. of PG programs: **8**

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          | 2022          | --             | Artificial Intelligence and Data Science          |
| 2      | Engineering & Technology | UG               | Biomedical Engineering                            | 2022          | --             | Biomedical Engineering                            |
| 3      | Engineering & Technology | UG               | Civil Engineering                                 | 2010          | --             | Civil Engineering                                 |
| 4      | Engineering & Technology | UG               | Computer Science and Engineering                  | 2008          | --             | Computer Science and Engineering                  |
| 5      | Engineering & Technology | PG               | Computer Science and Engineering                  | 2011          | --             | Computer Science and Engineering                  |
| 6      | Engineering & Technology | UG               | Computer Science and Engineering (Cyber Security) | 2024          | --             | Computer Science and Engineering (Cyber Security) |
| 7      | Engineering & Technology | UG               | Electrical and Electronics Engineering            | 2008          | --             | Electrical and Electronics Engineering            |
| 8      | Engineering & Technology | UG               | ELECTRONICS AND COMMUNICATION ENGINEERING         | 2008          | --             | Electronics and Communication Engineering         |

|    |                          |    |                                   |      |      |  |
|----|--------------------------|----|-----------------------------------|------|------|--|
| 9  | Engineering & Technology | PG | Embedded Systems                  | 2012 | --   | Electrical and Electronics Engineering |
| 10 | Engineering & Technology | PG | Engineering Design                | 2013 | 2022 | Mechanical Engineering                 |
| 11 | Engineering & Technology | PG | Information Technology            | 2013 | 2022 | Information Technology                 |
| 12 | Engineering & Technology | UG | Information Technology            | 2008 | --   | Information Technology                 |
| 13 | Engineering & Technology | UG | Mechanical Engineering            | 2009 | --   | Mechanical Engineering                 |
| 14 | Engineering & Technology | PG | Power Electronics & Drives        | 2014 | 2020 | Electrical and Electronics Engineering |
| 15 | Engineering & Technology | PG | Power Systems Engineering         | 2012 | 2022 | Electrical and Electronics Engineering |
| 16 | Engineering & Technology | PG | Structural Engineering            | 2014 | --   | Civil Engineering                      |
| 17 | Management               | PG | Master of Business Administration | 2009 | --   | Management                             |

**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 |
|--|---------------------------|--|---------------|
| Electrical and Electronics Engineering | No                        | Electrical and Electronics Engineering | UG            |
| Civil Engineering                      | No                        | Civil Engineering                      | UG            |
| Mechanical Engineering                 | No                        | Mechanical Engineering                 | UG            |

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

|           |
|-----------|
| No Record |
|-----------|

## PART-B: Program information

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

Table No. B1: Program details.

A. List of the Programs Offered by the Department:

| SR.NO. | PROGRAM NAME           | PROGRAM APPLIED LEVEL | YEAR OF START / YEAR OF CLOSED | SANCTIONED INTAKE | INCREASE/DECREASE INTAKE (if any) | YEAR OF INCREASE/DECREASE | CURRENT INTAKE | YEAR OF AICTE APPROVAL | AICTE/COMPETENT AUTHORITY APPROVAL DETAILS | ACCREDITATION STATUS | FROM | TO | NO. OF TIMES PROGRAM ACCREDITED |
|--------|------------------------|-----------------------|--------------------------------|-------------------|-----------------------------------|---------------------------|----------------|------------------------|--|----------------------|------|----|---------------------------------|
| 1      | Mechanical Engineering | UG                    | 2009 / --                      | 60                | Yes                               | 2011                      | 60             | 2011                   | F. No. Southern/1-435557331/2011/EOA       | Applying first time  | --   | -- | 0                               |

| 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 APPROVAL DETAILS | ACCREDITATION STATUS | FROM | TO | NO. OF TIMES PROGRAM ACCREDITED |
|--------|--------------|-----------------------|--------------------------------|-------------------|-----------------------------------|---------------------------|----------------|------------------------|--|----------------------|------|----|---------------------------------|
|--------|--------------|-----------------------|--------------------------------|-------------------|-----------------------------------|---------------------------|----------------|------------------------|--|----------------------|------|----|---------------------------------|

| Sanctioned Intake for Last Five Years for the Mechanical Engineering |                   |
|--|-------------------|
| Academic Year  | Sanctioned Intake |
| 2025-26  | 60                |
| 2024-25  | 60                |
| 2023-24  | 60                |
| 2022-23  | 60                |
| 2021-22  | 120               |
| 2020-21  | 120               |

List of the Allied Departments/Cluster and Programs:

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

|                           |  |
|---------------------------|--|
| A. Name of the HoD :      |  |
| B. Nature of appointment: |  |
| C. Qualification:         |  |

**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              | 60              | 120             | 120             | 120             |
| N1=Total no. of students admitted in the 1st year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program | 60            | 32              | 46              | 25              | 26              | 20              | 42              |
| N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats  | 0             | 10              | 6               | 8               | 13              | 24              | 6               |
| 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             | 0               | 0               | 0               | 0               | 0               | 0               |
| Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.                                      | 63            | 42              | 52              | 33              | 39              | 44              | 48              |

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 | 60 | 3 | 105.00 |
| 2024-25 (CAYm1) | 60 | 32 | 0 | 53.33  |
| 2023-24 (CAYm2) | 60 | 46 | 0 | 76.67  |

Average  $[(ER1 + ER2 + ER3) / 3] = 78.33 \approx 14.00$

#### 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)<br>LYG | (2020-21)<br>LYGm1 | (2019-20)<br>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). | 133.00           | 144.00             | 126.00             |
| B=No. of students who graduated from the program in the stipulated course duration   | 8.00             | 7.00               | 24.00              |
| Success Rate (SR)= (B/A) * 100   | 6.02             | 4.86               | 19.05              |

Average SR of three batches  $((SR_1 + SR_2 + SR_3)/3)$ : 9.98

#### 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) | 7.17             | 6.11             | 7.80              |
| Y=Total no. of successful students                            | 29.00            | 35.00            | 21.00             |
| Z=Total no. of students appeared in the examination           | 32.00            | 46.00            | 26.00             |
| API $[X*(Y/Z)]$   | 6.50             | 4.65             | 6.30              |

Average API  $[(AP1+AP2+AP3)/3]$  : 5.82

#### 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 2nd year/10) | 7.27              | 6.97              | 7.48              |
| Y=Total no. of successful students   | 41.00             | 28.00             | 37.00             |
| Z=Total no. of students appeared in the examination  | 47.00             | 33.00             | 39.00             |
| API $[ X * (Y/Z) ]$  | 6.34              | 5.91              | 7.10              |

Average API  $[(AP1 + AP2 + AP3)/3]$  : 6.45

#### 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) | 7.43            | 7.25            | 7.04            |
| Y=Total no. of successful students   | 28.00           | 37.00           | 37.00           |
| Z=Total no. of students appeared in the examination  | 28.00           | 37.00           | 39.00           |

Average API  $[(AP1 + AP2 + AP3)/3]$  : 7.12

**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            | 133.00        | 144.00         | 126.00         |
| X=No. of students placed                        | 34.00         | 24.00          | 31.00          |
| Y=No. of students admitted to higher studies    | 0.00          | 0.00           | 3.00           |
| Z= No. of students taking up entrepreneurship   | 0.00          | 0.00           | 0.00           |
| Placement Index(P) = $((X + Y + Z)/FS) * 100$ : | 25.56         | 16.67          | 26.98          |

Average Placement Index =  $(P_1 + P_2 + P_3)/3$ : 23.07 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. Lawrence P        | XXXXXXXX02C | Ph.D           | Anna University      | Thermal Engineering       | 04/06/2015                          | 10.7                                     | Professor                                       | Professor           | 04/06/2015  | Regular   | Yes                        |                                | No      |
| 2     | Dr. Anandan K         | XXXXXXXX30L | Ph.D           | Anna University      | Engineering Design        | 06/05/2013                          | 12.8                                     | Associate Professor                             | Associate Professor | 06/05/2013  | Regular   | Yes                        |                                |         |
| 3     | Dr. Senthil Kumar M.P | XXXXXXXX54A | Ph.D           | Anna University      | Engineering Design        | 02/07/2012                          | 13.7                                     | Associate Professor                             | Associate Professor | 02/07/2012  | Regular   | Yes                        |                                |         |
| 4     | Mr.Saravanan D        | XXXXXXXX80N | M.E.           | Anna University      | Manufacturing Engineering | 03/07/2017                          | 8.6                                      | Assistant Professor                             | Assistant Professor |   | Regular   | Yes                        |                                |         |
| 5     | Mr. Suresh N          | XXXXXXXX29D | M.E.           | Anna University      | Engineering Design        | 15/06/2015                          | 10.7                                     | Assistant Professor                             | Assistant Professor |   | Regular   | Yes                        |                                |         |
| 6     | Mr. Arun kumar G      | XXXXXXXX70F | M.E.           | St Peters University | Engineering Design        | 15/06/2015                          | 10.7                                     | Assistant Professor                             | Assistant Professor |   | Regular   | Yes                        |                                |         |
| 7     | Mr.Ravichandran.R     | XXXXXXXX12B | M.E.           | Anna University      | Manufacturing Engineering | 01/08/2022                          | 3.5                                      | Assistant Professor                             | Assistant Professor |   | Regular   | Yes                        |                                |         |
| 8     | Mr.Manivannan.D       | XXXXXXXX98G | M.E.           | Anna University      | IC Engines                | 01/08/2022                          | 3.5                                      | Assistant Professor                             | Assistant Professor |   | Regular   | Yes                        |                                |         |
| 9     | Mr. Rajkumar. I       | XXXXXXXX20B | M.E.           | Annamalai University | Manufacturing Engineering | 07/07/2025                          | 0.6                                      | Assistant Professor                             | Assistant Professor |   | Regular   | Yes                        |                                |         |
| 10    | Mr. Sathish Kumar M   | XXXXXXXX59Q | M.E.           | Anna University      | Computer Aided Design     | 26/06/2024                          | 1.7                                      | Assistant Professor                             | Assistant Professor |   | Regular   | Yes                        |                                |         |

|    |                         |             |      |                 |                                   |            |       |                     |                     |  |         |     |            |  |
|----|-------------------------|-------------|------|-----------------|-----------------------------------|------------|-------|---------------------|---------------------|--|---------|-----|------------|--|
| 11 | Mr Mylesamy B           | XXXXXXXX95N | M.E. | Anna University | Engineering Design                | 07/07/2025 | 0.6   | Assistant Professor | Assistant Professor |  | Regular | Yes |            |  |
| 12 | Mr. Jayasankar. N       | XXXXXXXX13L | M.E. | Anna University | Thermal Engineering               | 12/07/2017 | 8.6   | Assistant Professor | Assistant Professor |  | Regular | No  | 31/05/2025 |  |
| 13 | Mr. Palanivelan. D.R.   | XXXXXXXX75F | M.E. | Anna University | Engineering Design                | 02/07/2018 | 6.11  | Assistant Professor | Assistant Professor |  | Regular | No  | 31/05/2025 |  |
| 14 | Mr. Bhuvanesh kumar. T. | XXXXXXXX32H | M.E. | Anna University | Engineering Design                | 02/05/2011 | 14.1  | Assistant Professor | Assistant Professor |  | Regular | No  | 31/05/2025 |  |
| 15 | Mr. Poovannan. S        | XXXXXXXX02F | M.E. | Anna University | Engineering Design                | 01/05/2017 | 8.9   | Assistant Professor | Assistant Professor |  | Regular | Yes |            |  |
| 16 | Dr. Manigandan K        | XXXXXXXX83P | Ph.D | VIT University  | Engineering Design                | 26/06/2024 | 0.11  | Assistant Professor | Assistant Professor |  | Regular | No  | 31/05/2025 |  |
| 17 | Dr.Thirunavukkarasu.R   | XXXXXXXX18P | Ph.D | Anna University | Thermal Engineering               | 01/08/2022 | 1.9   | Assistant Professor | Assistant Professor |  | Regular | No  | 15/05/2024 |  |
| 18 | Mr. Jayakumar.V         | XXXXXXXX94F | M.E. | Anna University | Thermal Engineering               | 14/06/2018 | 5.11  | Assistant Professor | Assistant Professor |  | Regular | No  | 15/05/2024 |  |
| 19 | Mr. Balasundaram. V     | XXXXXXXX01E | M.E. | Anna University | Engineering Design                | 05/06/2013 | 10.11 | Assistant Professor | Assistant Professor |  | Regular | No  | 15/05/2024 |  |
| 20 | Mr.Venkathamuthu V P    | XXXXXXXX55D | M.E. | Anna University | Computer Integrated Manufacturing | 10/02/2012 | 12.3  | Assistant Professor | Assistant Professor |  | Regular | No  | 15/05/2024 |  |
| 21 | Mr. Chenguttuvan P      | XXXXXXXX46K | M.E. | Anna University | Engineering Design                | 15/12/2021 | 2.4   | Assistant Professor | Assistant Professor |  | Regular | No  | 15/05/2024 |  |
| 22 | Mr. Philips S           | XXXXXXXX41E | M.E. | Anna University | Engineering Design                | 30/11/2020 | 5.1   | Assistant Professor | Assistant Professor |  | Regular | Yes |            |  |

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

## C2. Student-Faculty Ratio (SFR)

No. of UG(Engineering) programs in Department including allied departments/ clusters (UGn):

UG1=1st UG program

UGn=nth UG program

**B**= No. of Students in UG 2nd year (ST)

**C**= No. of Students in UG 3rd year (ST)

**D**= No. of Students in UG 4th year (ST)

No. of PG (Engineering) programs in Department including allied departments/ clusters (PGm):

PG1=1st PG program.

PGm=mth PG program

**A**= No. of Students in PG 1st year

**B**= No. of Students in PG 2nd year

Student Faculty Ratio (**SFR**) = S/F

S= No. of students of all programs in the Department including all students of allied departments/clusters.

**No. of students (ST)**=Sanctioned Intake (SA)+ Actual admitted students via lateral entry including leftover seats (L) if any (limited to 10 % of SA)

Students who admitted under supernumerary quotas (SNQ, EWS, etc) will not be considered in calculating SFR value. Those students are exempted.

**F**=Total no. of regular or contractual faculty members (Full Time) in the Department, including allied departments/clusters (excluding first year faculty (The faculty members who have a 100% teaching load in the first-year courses)).

No. of UG Programs in the Department1 No. of PG Programs in the Department0

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

| Description   | CAY(2025-26)       | CAYm1 (2024-25)    | CAYm2 (2023-24)    |
|---|--------------------|--------------------|--------------------|
| UG1.B   | 66                 | 66                 | 66                 |
| UG1.C   | 66                 | 66                 | 132                |
| UG1.D   | 66                 | 132                | 126                |
| <b>UG1: Mechanical Engineering</b>  | <b>198</b>         | <b>264</b>         | <b>324</b>         |
| DS=Total no. of students in all UG and PG programs in the Department                | 198                | 264                | 324                |
| AS=Total no. of students of all UG and PG programs in allied departments            | 0                  | 0                  | 0                  |
| S=Total no. of students in the Department (DS) and allied departments (AS)          | <b>S1= 198</b>     | <b>S2= 264</b>     | <b>S3= 324</b>     |
| DF=Total no. of faculty members in the Department                                   | 13                 | 15                 | 18                 |
| AF= Total no. of faculty members in the allied Departments                          | 0                  | 0                  | 0                  |
| F=Total no. of faculty members in the Department (DF) and allied Departments (AF)   | <b>F1= 13</b>      | <b>F2= 15</b>      | <b>F3= 18</b>      |
| FF=The faculty members in F who have a 100% teaching load in the first-year courses | 2                  | 2                  | 1                  |
| Student Faculty Ratio (SFR)=S/(F-FF)  | <b>SFR1= 18.00</b> | <b>SFR2= 20.31</b> | <b>SFR3= 19.06</b> |
| Average SFR for 3 years   | <b>SFR= 19.12</b>  |                    |                    |

### C3. Faculty Qualification

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

Table No.C3.1: Faculty qualification.

| Year           | X | Y  | RF    | FQ = $2.5 \times [(10X + 4Y) / RF]$ |
|----------------|---|----|-------|-------------------------------------|
| 2025-26(CAY)   | 3 | 10 | 9.00  | 19.44                               |
| 2024-25(CAYm1) | 4 | 11 | 13.00 | 16.15                               |
| 2023-24(CAYm2) | 4 | 14 | 16.00 | 15.00                               |

### C4. Faculty Cadre Proportion

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

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

| Year    | Professors   |               | Associate Professors |               | Assistant Professors |               |
|---------|--------------|---------------|----------------------|---------------|----------------------|---------------|
|         | Required RF1 | Available AF1 | Required RF2         | Available AF1 | Required RF3         | Available AF3 |
| 2025-26 | 1.00         | 1.00          | 2.00                 | 2.00          | 6.00                 | 10.00         |
| 2024-25 | 1.00         | 1.00          | 2.00                 | 2.00          | 8.00                 | 12.00         |

|         |          |          |          |          |          |           |
|---------|----------|----------|----------|----------|----------|-----------|
| 2023-24 | 1.00     | 1.00     | 3.00     | 2.00     | 10.00    | 15.00     |
| Average | RF1=1.00 | AF1=1.00 | RF2=2.33 | AF2=2.00 | RF2=8.00 | AF2=12.33 |

#### 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. R. ANBARASU    | CHIEF MARKETING OFFICER | M/s. PENTACAD TECHNOLOGY Pvt Ltd., PENNAGARAM MAIN ROAD, SATHYA NAGAR DHARMAPURI - 636 809 | CNC PART PROGRAMMING | 51.00                |

(CAYm2)

| S.No | Name of the Person | Designation             | Organization   | Name of the Course   | No. of hours handled |
|------|--------------------|-------------------------|--|----------------------|----------------------|
| 1    | Mr. R. ANBARASU    | CHIEF MARKETING OFFICER | M/s. PENTACAD TECHNOLOGY Pvt Ltd., PENNAGARAM MAIN ROAD, SATHYA NAGAR DHARMAPURI - 636 809 | CNC PART PROGRAMMING | 50.00                |

(CAYm3)

| S.No | Name of the Person | Designation             | Organization   | Name of the Course   | No. of hours handled |
|------|--------------------|-------------------------|--|----------------------|----------------------|
| 1    | Mr. R. ANBARASU    | CHIEF MARKETING OFFICER | M/s. PENTACAD TECHNOLOGY Pvt Ltd., PENNAGARAM MAIN ROAD, SATHYA NAGAR DHARMAPURI - 636 809 | CNC PART PROGRAMMING | 50.00                |

#### C6. Academic Research

Table No. C6.1: Faculty publication details.

| S.No. | Item   | 2024-25 (CAYm1) | 2023-24 (CAYm2) | 2022-23 (CAYm3) |
|-------|--|-----------------|-----------------|-----------------|
| 1     | No. of peer reviewed journal papers published    | 1               | 7               | 1               |
| 2     | No. of peer reviewed conference papers published | 13              | 3               | 12              |
| 3     | No. of books/book chapters published             | 0               | 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 |
|---------|--------------------|--|----------------|----------------------------|-------------------------|-----------------------------------|
| -       | -                  | -  | -              | -                          | -                       | 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)<br>i.e. 15,25,000=15.25 |
|---------|--------------------|--|----------------|----------------------------|-------------------------|--------------------------------------|
| -       | -                  | -  | -              | -                          | -                       | 0.00                                 |
|         |                    |  |                |                            |                         | Amount received<br>(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)<br>i.e. 15,25,000=15.25 |
|---------|--------------------|--|----------------|----------------------------|-------------------------|--------------------------------------|
| -       | -                  | -  | -              | -                          | -                       | 0.00                                 |
|         |                    |  |                |                            |                         | Amount received<br>(Rs.):0.00        |

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

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)<br>i.e. 15,25,000=15.25 |
|--------------|--------------------|--|--|----------------------------|-------------------------|--------------------------------------|
| Dr.K.Anandan | -                  | Mechanical Engineering                         | Refurbishment of Semi-automatic Edge Polishing Machine | Sri Chennakesava Granites  | 10 Days                 | 0.40                                 |
|              |                    |  |  |                            |                         | Amount received<br>(Rs.):0.40        |

(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)<br>i.e. 15,25,000=15.25 |
|----------------|--------------------|--|--|----------------------------|-------------------------|--------------------------------------|
| Mr.S.Poovannan | -                  | Mechanical Engineering                         | Design and Development of Low-Cost Automation Systems for Productivity Enhancement | Lovelei Soft Drinks        | 10 Days                 | 0.35                                 |
|                |                    |  |  |                            |                         | Amount received<br>(Rs.):0.35        |

(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)<br>i.e. 15,25,000=15.25 |
|-----------------------|--------------------|--|--|----------------------------|-------------------------|--------------------------------------|
| Dr.R.Thirunavukkarasu | -                  | Mechanical Engineering                         | Improving Surface Finish and Dimensional Accuracy in Precision Turning | Jayam Tooling system       | 10 Days                 | 0.35                                 |
|                       |                    |  |  |                            |                         | Amount received<br>(Rs.):0.35        |

Total amount (Lacs) received for the past 3 years: 1.10

**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)<br>i.e. 15,25,000=15.25 | Amount Utilized(Lacs)<br>i.e. 15,25,000=15.25 | Outcomes of the project  |
|-------------------|---|-------------------------|--------------------------------------|---|--|
| Mr.G. Arun Kumar  | Hydrogen Addition with Watermelon Seed Biodiesel Blend as a Fuel In a Compression Ignition Engine | 6 Months                | 0.10                                 | 0.10  | Research paper published in SCI  |
| Mr.D.Saravanan    | Interdependence of Hydrogen Addition in Watermelon Seed Biodiesel– Fueled CI Engine               | 6 Months                | 0.10                                 | 0.10  | Research paper published in SCI  |
| Mr.D.Manivannan   | Energy Investigation of Combined Power Cooling and District Water Heating System                  | 6 Months                | 0.10                                 | 0.10  | Research paper published in Heat transer journal                                   |
| Mr.G. Arun Kumar  | Experimental Investigation of Hydrogen-Enriched Biodiesel for Diesel Engine Applications          | 12 Months               | 0.30                                 | 0.30  | Institutional support was provided to facilitate the faculty member's PhD research |
| Mr.D.Saravanan    | Experimental Study of Hydrogen-Enriched Non-Edible Oil–DME Fuel in a DI Diesel Engine             | 12 Months               | 0.30                                 | 0.30  | Institutional support was provided to facilitate the faculty member's PhD research |
| Mr.R.Ravichandran | Experimental Study on Corrosion Resistance of AZ31B Magnesium Alloy with Babbitt Coating          | 12 Months               | 0.30                                 | 0.30  | Institutional support was provided to facilitate the faculty member's PhD research |
|                   |   |                         | Amount received (Rs.):<br>1.20       |   |  |

(CAYm2)

| Faculty name           | Project title/ Support for Activity   | Duration of the project | Amount(Lacs)<br>i.e. 15,25,000=15.25 | Amount Utilized(Lacs)<br>i.e. 15,25,000=15.25 | Outcomes of the project  |
|------------------------|---|-------------------------|--------------------------------------|---|--|
| Dr. R. Thirunavukarasu | Experimental Optimization of Injection Parameters for Improved Combustion Using CE40 Fuel | 3 Months                | 0.10                                 | 0.10  | Research paper published in journal  |
| Dr. R. Thirunavukarasu | Exploratory of novel thermal barrier coating on diesel engine performance                 | 3 Months                | 0.10                                 | 0.10  | Research paper published in journal  |
| Dr. R. Thirunavukarasu | Mechanical Properties of E-Waste Composite Materials with Dual Glass Fiber Reinforcement  | 3 Months                | 0.10                                 | 0.10  | Research paper published in journal  |
| Mr.G. Arun Kumar       | Experimental Investigation of Hydrogen-Enriched Biodiesel for Diesel Engine Applications  | 12 Months               | 0.30                                 | 0.30  | Institutional support was provided to facilitate the faculty member's PhD research |
| Mr.D. Saravanan        | Experimental Study of Hydrogen-Enriched Non-Edible Oil–DME Fuel in a DI Diesel Engine     | 12 Months               | 0.30                                 | 0.30  | Institutional support was provided to facilitate the faculty member's PhD research |
| Mr.R. Ravichandran     | Experimental Study on Corrosion Resistance of AZ31B Magnesium Alloy with Babbitt Coating  | 12 Months               | 0.30                                 | 0.30  | Institutional support was provided to facilitate the faculty member's PhD research |
|                        |   |                         | Amount received (Rs.):<br>1.20       |   |  |

(CAYm3)

| Faculty name     | Project title/ Support for Activity  | Duration of the project | Amount(Lacs)<br>i.e. 15,25,000=15.25 | Amount Utilized(Lacs)<br>i.e. 15,25,000=15.25 | Outcomes of the project  |
|------------------|--|-------------------------|--------------------------------------|---|--|
| Mr.G. Arun Kumar | Experimental Investigation of Hydrogen-Enriched Biodiesel for Diesel Engine Applications | 12 Months               | 0.30                                 | 0.30  | Institutional support was provided to facilitate the faculty member's PhD research |
| Mr.D.Saravanan   | Experimental Study of Hydrogen-Enriched Non-Edible Oil–DME Fuel in a DI Diesel Engine    | 12 Months               | 0.30                                 | 0.30  | Institutional support was provided to facilitate the faculty member's PhD research |
|                  |  |                         | Amount received (Rs.):<br>0.60       |   |  |

Total amount (Lacs) received for the past 3 years : 3.00

## 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      | Engineering Practices Laboratory                          | 30  | 1. Assorted components for plumbing consisting of metallic pipes, plastic pipes, flexible pipes, ... | 3 hours  | Mr.M.Sathiyamoorthi         | Lab Technician | Diploma in Mechanical E |
| 2      | Manufacturing Technology Laboratory                       | 30  | 1. Centre Lathes 7 nos 2. Horizontal Milling Machine 1 no 3. Vertical Milling Machine 1 no 4. ...    | 3 hours  | Mr.R.Balaji                 | Lab Technician | Diploma in Mechanical E |
| 3      | Strength of Materials and Fluid Machinery Laboratory      | 30  | 1. Universal Tensile Testing machine with double 1 shear attachment –40 Ton Capacity 2. ...          | 3 hours  | Mr.M.Sathiyamoorthi         | Lab Technician | Diploma in Mechanical E |
| 4      | Thermal Engineering Laboratory & Heat Transfer Laboratory | 30  | 1. I.C Engine – 2 stroke and 4 stroke model 2. Apparatus for Flash and Fire Point 3. 4-stroke ...    | 3 hours  | Mr.M.Sathiyamoorthi         | Lab Technician | Diploma in Mechanical E |
| 5      | Metrology Laboratory                                      | 30  | 1. Micrometer 2. Vernier Caliper 3. Vernier Height Gauge 4. Vernier depth Gauge 5. Slip ...          | 3 hours  | Mr.R.Balaji                 | Lab Technician | Diploma in Mechanical E |
| 6      | CAD/CAM Laboratory & Computer Aided Machine Drawing       | 30  | HARDWARE 1. Computer Server 2. Computer nodes or systems (High end CPU with atleast 1 GB ...)        | 3 hours  | Mr.K.Barath kumar           | Lab Technician | Diploma in Mechanical E |
| 7      | Mechatronics and IoT Laboratory                           | 30  | MECHATRONICS 1. Basic Pneumatic Trainer Kit with manual and electrical controls/ PLC Control ...     | 3 hours  | Mr.R.Balaji                 | Lab Technician | Diploma in Mechanical E |
| 8      | Kinematics and Dynamics Laboratory                        | 30  | Kinematics and Dynamics 1. Cam follower setup. 2. Motorised gyroscope. 3. Governor apparatus ...     | 3 hours  | Mr.M.Sathiyamoorthi         | Lab Technician | Diploma in Mechanical E |

### D2. Safety Measures in Laboratories

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

| Sr. No | Laboratory Name   | Safety Measures  |
|--------|---|--|
| 1      | Engineering Practices Laboratory                          | <p>Welding Safety Measures 1. Weld only in designated areas. 2. Only operate welding equipment you have been trained to use. 3. Know what the substance is that's being welded and any coating on it. 4. Wear protective clothing to cover all exposed areas of the body for protection sparks, hot spatter, and radiation. 5. Protective clothing should be dry and free of holes, grease, oil, and other substances which may burn. 6. Wear flameproof gauntlet gloves, a leather or asbestos apron, and high-top shoes to provide good protection against sparks and spatter. 7. Wear specifically designed, leak-proof helmets equipped with filter plates to protect against ultraviolet, infrared, and visible radiation. 8. Never look at a flash, even for an instant. 9. Keep your head away from the plume by staying back and to the side of the work. 10. Use your helmet and head position to minimize fume inhalation in your breathing zone. 11. Make sure there is good local exhaust ventilation to keep the air in your breathing zone clear. 12. Don't weld in a confined space without adequate ventilation and a NIOSH-approved respirator. 13. Don't weld in wet areas, wear wet or damp clothing or weld with wet hands. 14. Don't weld on containers which have held combustible materials or on drums, barrels or tanks until proper safety precautions have been taken to prevent explosions. 15. If others are working in the area be sure they are warned and protected against arcs, fumes, sparks, and other welding hazards. 16. Don't coil the electrode cable around your body. 17. Ground both the frame of the welding equipment and metal being welded. 18. Check for leaks in gas hoses using an inert gas. 19. Check area around you before welding to be sure no flammable material or degreasing solvents are in the welding area. 20. Keep a fire watch in the area during and after welding to be sure there are no smoldering materials, hot slag or live sparks which could start a fire. 21. Locate the nearest fire extinguisher before welding. 22. Deposit all scraps and electrode butts in proper waste container to avoid fire and toxic fumes</p> <p>Lathe Safety Measures 1. Always use the guard. 2. Wear goggles when drilling materials. 3. Clamp the materials down or use a machine vice. 4. Never hold materials by hand while drilling. 5. Always allow the 'chippings' to clear the drill by drilling a small amount at a time. 6. Follow all teacher instructions carefully.</p> |
| 2      | Manufacturing Technology Laboratory                       | <p>1. Check the tools before and after the work. 2. Learn the machine before the operation. 3. Double check that your work piece is securely held or not. 4. Keep the body parts away from the running machine. 5. Do not change the speed and measure the dimension when machine is running. 6. Do not remove the guards from the running machine. 7. Do not leave running machine unattended. 8. Ensure the cleanliness before and after the job. 9. Use proper lubricant while machining</p>  |
| 3      | Strength of Materials and Fluid Machinery Laboratory      | <p>1. Report any broken plugs or exposed electrical wires to your Lecturer/laboratory technician immediately 2. Laboratory uniform, shoes &amp; safety glasses are compulsory in the lab. 3. Please follow instructions precisely as instructed by your supervisor. Do not start the experiment unless your setup is verified &amp; approved by your supervisor. 4. If any part of the equipment fails while being used, report it immediately to your supervisor. Never try to fix the problem yourself because you could further damage the equipment and harm yourself and others in the lab. 5. Do not leave the experiments unattended while in progress. 6. Do not crowd around the equipments &amp; run inside the laboratory. 7. Please do take care of measuring instruments which you are handling. 8. Do not misplace the equipments. 9. Ensure the cleanliness before and after the job 10. All accidents, including minor injuries and all hazardous conditions are to be reported immediately to the Laboratory Staff.</p>   |
| 4      | Thermal Engineering Laboratory & Heat Transfer Laboratory | <p>1. Laboratory uniform, shoes &amp; safety glasses are compulsory in the lab. 2. Report any broken plugs or exposed electrical wires to laboratory technician immediately. 3. Report fires or accidents to your lecturer/laboratory technician immediately. 4. Do not crowd around the equipments &amp; run inside the laboratory. 5. If any part of the equipment fails while being used, report it immediately to your supervisor. Never try to fix the problem yourself because you could further damage the equipment and harm yourself and others in the lab. 6. Do not leave the experiments unattended while in progress. 7. Never allow a solvent to come in contact with your skin. Always use gloves. 8. Dispose of waste and broken glassware in proper containers.</p>   |
| 5      | Metrology Laboratory                                      | <p>1. Report any broken plugs or exposed electrical wires to your Lecturer/laboratory technician immediately 2. Laboratory uniform, shoes &amp; safety glasses are compulsory in the lab. 3. Please follow instructions precisely as instructed by your supervisor. Do not start the experiment unless your setup is verified &amp; approved by your supervisor. 4. If any part of the equipment fails while being used, report it immediately to your supervisor. Never try to fix the problem yourself because you could further damage the equipment and harm yourself and others in the lab. 5. Do not leave the experiments unattended while in progress. 6. Do not crowd around the equipments &amp; run inside the laboratory. 7. Please do take care of vernier calliper, sensor and transducers which your handling. 8. Do not misplace the equipments. 9. Ensure the cleanliness before and after the job. 10. All accidents, including minor injuries and all hazardous conditions are to be reported immediately to the Laboratory Staff or the Director. 11. Check the tools before and after the work 12. Learn the equipment before the operation</p>   |

|   |   |  |
|---|---|--|
| 6 | CAD/CAM Laboratory<br>&<br>Computer Aided Machine Drawing | 1. Report any broken plugs or exposed electrical wires to your Lecturer/laboratory technician immediately. 2. Avoid stepping on electrical wires or any other computer cables. 3. Do not open the system unit casing or monitor casing particularly when the power is turned on. 4. Do not insert metal objects such as clips, pins and needles into the computer casings. They may cause fire. 5. Do not remove anything from the computer laboratory without permission. 6. Do not plug in external devices without scanning them for computer viruses. 7. Turn off the computer when not in use. 8. Do not consume food or water near the computers.  |
| 7 | Mechatronics and IoT Laboratory                           | 1. Proper earthing and grounding of all electrical equipment and power supplies 2. Inspection of power cables, adapters, and extension boards for damage 3. Ensure power supply is switched OFF before circuit assembly or modification 4. Verification of safe handling of microcontrollers, sensors, actuators, and IoT kits 5. Proper storage and maintenance of soldering irons, tools, and testing instruments 6. Fire extinguisher availability and working condition 7. Availability of First Aid Kit and checking expiry of medical items 8. Computer systems updated with antivirus and secure network configuration 9. Proper cable management to avoid tripping hazards 10. Verification of proper ventilation and safe working environment in laboratory 11. Checking safe operation of robotic kits, motors, and moving mechanical parts 12. Ensuring students follow laboratory safety instructions and guidelines 13. Display of safety instructions, emergency contacts, and lab rules 14. Inspection and calibration of measuring instruments and IoT devices 15. Backup and security of project data and IoT device passwords  |
| 8 | Kinematics and Dynamics Laboratory                        | 1. Inspection of experimental setups such as governors, gyroscope, and balancing apparatus before operation 2. Ensure all rotating parts, belts, and pulleys have proper guards and covers 3. Check tightness of bolts, nuts, and fixtures in mechanisms and experimental rigs 4. Ensure proper lubrication of moving parts in mechanisms and machines 5. Electrical safety check for motor-driven experimental setups 6. Verification that students maintain safe distance from rotating components during experiments 7. Availability and inspection of First Aid Kit 8. Fire extinguisher availability and functional condition 9. Proper storage of weights, tools, and accessories after experiments 10. Ensure experimental apparatus are switched OFF after completion of experiments 11. Inspection of measuring instruments such as tachometers, stroboscopes, and stopwatches 12. Maintain clean laboratory floor and workspace to avoid slipping or tripping hazards 13. Display of laboratory safety instructions and operating procedures near equipment 14. Calibration check of instruments used for dynamic measurements 15. Verification of proper student supervision during experiments involving rotating mechanisms |

### D3. Project Laboratory/Research Laboratory

### 7.5 Project Laboratory/Research Laboratory /Centre of Excellence

The students of Mechanical engineering are also permitted to do their mini and major projects at the following laboratories besides regular project laboratory. The details of project laboratory facilities created are shown in table.

|  |  |
|--|--|
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|  |  |
|  |  |
|  |  |

#### 1. Laboratory Details

| Item                  | Details   |
|-----------------------|---|
| Laboratory Name       | Mechanical Engineering Project Laboratory   |
| Laboratory Area       | 120–150 sq.m (approx.)  |
| Location              | Mechanical Engineering Department   |
| Laboratory In-charge  | Faculty Member  |
| Supporting Staff      | Lab Technician  |
| Year of Establishment | <b>2022</b>   |
| Major Equipment       | Welding machine, drilling machine, bench vice, grinders, hand tools, measuring instruments, fabrication tools |

#### 2. Facilities Details

| Sl.No | Name of the Facilities         | Equipment               | Utilization   |
|-------|--------------------------------|-------------------------|---|
| 1     | Project Laboratory(Designated) | ANSYS, CATIA, AUTO CAD, | UG/PG students, Research Scholars and Faculty members utilize these softwares for modeling and analysis of components in their projects |
| 2     | AICTE – IDEA LAB               | All the Machines        | UG/PG students, Research Scholars and Faculty members utilize these softwares for modeling and analysis of components in their projects |

### 3. Reason for Creating the Facility

| Sl.No | Description  |
|-------|--|
| 1     | To provide students with hands-on experience in designing and developing engineering projects. |
| 2     | To integrate theoretical knowledge with practical implementation.                              |
| 3     | To enhance students' skills in fabrication, assembly, testing, and troubleshooting.            |
| 4     | To encourage innovation, teamwork, and problem-solving abilities.                              |
| 5     | To support final year major projects and interdisciplinary engineering projects.               |

### 4. Utilization of the Laboratory

| Sl.No | Purpose of Utilization             |
|-------|------------------------------------|
| 1     | Final Year Major Projects          |
| 2     | Mini Projects                      |
| 3     | Prototype Development              |
| 4     | Product Design and Fabrication     |
| 5     | Research and Innovation Activities |
| 6     | Industry-Sponsored Projects        |

### 5. Student Learning Outcomes

| Sl.No | Student Learning Outcome   |
|-------|--|
| 1     | Apply engineering knowledge to design and develop mechanical systems.    |
| 2     | Identify and solve real-world engineering problems through project work. |

|   |   |
|---|---|
| 3 | Use modern engineering tools and equipment for fabrication and testing. |
| 4 | Work effectively in teams to complete engineering projects.             |
| 5 | Demonstrate project planning, documentation, and presentation skills    |

**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 $\frac{((NS1*0.8) + (NS2*0.2))}{(\text{No. of required faculty (RF4)})}$ ; Percentage= $\frac{((NS1*0.8) + (NS2*0.2))}{RF}$ |
|----------------|---|--------------------------------------|---|---|--|
| 2023-24(CAYm2) | 480                                       | 24                                   | 23  | 15  | 89   |
| 2024-25(CAYm1) | 600                                       | 30                                   | 28  | 17  | 86   |
| 2025-26(CAY)   | 720                                       | 36                                   | 36  | 18  | 90   |

**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                  | 2800000.00          | 3200800.00                      | 2400000.00          | 2672750.00                      | 2250000.00          | 2475750.00                      | 1850000.00          | 1772600.00                      |
| Library                                  | 1450000.00          | 1438500.00                      | 1250000.00          | 1220500.00                      | 1200000.00          | 1137500.00                      | 1000000.00          | 980300.00                       |
| Laboratory equipment                     | 3750000.00          | 3690800.00                      | 3600000.00          | 3462800.00                      | 3000000.00          | 2935000.00                      | 2750000.00          | 2690500.00                      |
| Teaching and non-teaching staff salary   | 60500000.00         | 60280500.00                     | 46000000.00         | 45175000.00                     | 37500000.00         | 37290400.00                     | 31500000.00         | 31050680.00                     |
| Outreach Programs                        | 275000.00           | 269500.00                       | 225000.00           | 240500.00                       | 200000.00           | 210500.00                       | 300000.00           | 330001.00                       |
| R&D                                      | 950000.00           | 944200.00                       | 900000.00           | 850600.00                       | 850000.00           | 845400.00                       | 732000.00           | 721442.00                       |
| Training, Placement and Industry linkage | 200000.00           | 193000.00                       | 170000.00           | 151360.00                       | 150000.00           | 140350.00                       | 125000.00           | 110723.00                       |

|                  |                     |                     |                    |                    |                    |                    |                    |                    |
|------------------|---------------------|---------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| SDGs             | 700000.00           | 687900.00           | 600000.00          | 610500.00          | 500000.00          | 490500.00          | 200000.00          | 220600.00          |
| Entrepreneurship | 400000.00           | 398500.00           | 350000.00          | 354200.00          | 300000.00          | 290800.00          | 100000.00          | 100100.00          |
| Others, specify  | 49060000.00         | 48444950.00         | 36915000.00        | 37304400.00        | 32945000.00        | 32267800.00        | 30308000.00        | 29814460.00        |
| <b>Total</b>     | <b>120085000.00</b> | <b>119548650.00</b> | <b>92410000.00</b> | <b>92042610.00</b> | <b>78895000.00</b> | <b>78084000.00</b> | <b>68865000.00</b> | <b>67791406.00</b> |

### 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                             | 230500              | 225000                          | 251000              | 247800                          | 325000              | 324800                          | 380000              | 353800                          |
| Software   | 46500               | 48500                           | 38000               | 38500                           | 30500               | 34700                           | 80000               | 85900                           |
| SDGs   | 30000               | 23500                           | 25000               | 22500                           | 20000               | 17500                           | 18000               | 17600                           |
| Support for faculty development                  | 45000               | 40500                           | 43500               | 41500                           | 38000               | 33800                           | 32000               | 26500                           |
| R & D  | 50000               | 48000                           | 45000               | 42000                           | 32000               | 29500                           | 28000               | 24500                           |
| Industrial Training, Industry expert, Internship | 35000               | 34700                           | 30000               | 28900                           | 27000               | 24500                           | 20000               | 18500                           |
| Miscellaneous Expenses*                          | 5000                | 4750                            | 7000                | 5900                            | 8000                | 8400                            | 10000               | 9500                            |
| <b>Total</b>                                     | <b>442000</b>       | <b>424950</b>                   | <b>439500</b>       | <b>427100</b>                   | <b>480500</b>       | <b>473200</b>                   | <b>568000</b>       | <b>536300</b>                   |