

## **NATIONAL BOARD OF ACCREDITATION**

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

#### **PART-A: Profile of the Institute**

**Name of the Program Applied for: B.E.Electrical and Electronics Engineering**

**A1: Name of the Institute: - M.I.E.T. Engineering College**

Year of Establishment: 1998

Location of the Institute: Rural

**A2: Institute Address: -**

City : Tiruchirappalli State: Tamil Nadu

Pin Code : 620007 Website: www.miet.edu

E-mail : contact@miet.edu Phone No (with STD Code): 0431-2660303

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

Name of the University : Anna University City : Chennai

State : Tamil Nadu Pin Code: 600025

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

Institute of National Importance

☐

Deemed University

☐

University

☐

Autonomous

☒

Non-Autonomous (Affiliated)

☐

Any other (Please specify) \*

☐

**\*Provide Details:** \_\_\_\_\_

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

Central Government

☐

State Government

☐

Government Aided

☐

Self-financing

☒

Any Other (Please specify) \*

☐

**\*Provide Details:** \_\_\_\_\_

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

❖ No. of UG programs: 8

❖ No. of PG programs: 6

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

| S.N. | Level of program (UG/PG) | Name of the program                              | Year of Start | Year close* | Name of the Department                    |
|------|--------------------------|--------------------------------------------------|---------------|-------------|-------------------------------------------|
| 1    | UG                       | B.E. Civil Engineering                           | 2006          | -           | Civil Engineering                         |
| 2    | UG                       | B.E. Mechanical Engineering                      | 1998          | -           | Mechanical Engineering                    |
| 3    | UG                       | B.E. Electrical and Electronics Engineering      | 1998          | -           | Electrical and Electronics Engineering    |
| 4    | UG                       | B.E. Electronics and Communication Engineering   | 2001          | -           | Electronics and Communication Engineering |
| 5    | UG                       | B.E. Computer Science and Engineering            | 1998          | -           | Computer Science and Engineering          |
| 6    | UG                       | B.E. Bio Medical Engineering                     | 2022          | -           | Electronics and Communication Engineering |
| 7    | UG                       | B.Tech. Artificial Intelligence and Data Science | 2022          | -           | Computer Science and Engineering          |
| 8    | UG                       | B.Tech. Information Technology                   | 2022          | -           | Computer Science and Engineering          |
| 9    | PG                       | M.E. Structural Engineering                      | 2011          | -           | Civil Engineering                         |
| 10   | PG                       | M.E. Manufacturing Engineering                   | 2006          | -           | Mechanical Engineering                    |
| 11   | PG                       | M.E. Power Electronics and Drives                | 2011          | -           | Electrical and Electronics Engineering    |
| 12   | PG                       | M.E. VLSI Design                                 | 2010          | -           | Electronics and Communication Engineering |
| 13   | PG                       | M.E. Computer Science and Engineering            | 2006          | -           | Computer Science and Engineering          |
| 14   | PG                       | MBA-Master of Business Administration            | 2009          | -           | Management Studies                        |

**A7: Programs to be considered for Accreditation vide this Application:****Table No. A7.1:** List of programs to be considered for accreditation.

| Cluster ID. | Name of the Department                 | Name of the Program                         |
|-------------|----------------------------------------|---------------------------------------------|
| 1.          | Computer Science and Engineering       | BE (Computer Science and Engineering)       |
| 2.          | Mechanical Engineering                 | BE (Mechanical Engineering)                 |
| 3.          | Electrical and Electronics Engineering | BE (Electrical and Electronics Engineering) |

**Table No. A7.2:** Allied Department(s) to the Department of the program considered for accreditation as above.

| Cluster ID. | Name of the Department (in table no. A7.1) | Name of allied Departments/Cluster (for table no. A7.1) |
|-------------|--------------------------------------------|---------------------------------------------------------|
| 1.          | Computer Science and Engineering           | Artificial Intelligence and Data Science                |
| 2.          | Computer Science and Engineering           | Information and Technology                              |

**PART-B: Program information**

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

**B1: Provide the Required Information for the Program Applied For: -****Table No. B1:** Program details.

| S. N. | Program Name                                | Year of start | Sanctioned Intake | Increase/decrease in intake, if any | Year of increase / decrease | AICTE Approval Details                             | Accreditation Status*                                                                           | No. of times program accredited |
|-------|---------------------------------------------|---------------|-------------------|-------------------------------------|-----------------------------|----------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------------------------|
| 1.    | BE (Electrical and Electronics Engineering) | 1998          | 60                | 60                                  | -                           | F.No:730 – 52 – 300 (E)/ET / 97 (17.11.1997)       | Granted accreditation for 3 years for the period<br><br>2019-20 to 2021-22 & 2022-23 to 2024-25 | 2                               |
|       |                                             |               |                   | 40                                  | 2004-05                     | F.No:730 – 52 – 300 (E)/ET / 97 (17.11.2004)       |                                                                                                 |                                 |
|       |                                             |               |                   | 60                                  | 2005-06                     | F.No:730 – 52 – 300 (E)/ET / 97 (28.07.2005)       |                                                                                                 |                                 |
|       |                                             |               |                   | 120                                 | 2014-15                     | F.No:730 – 52 – 300 (E)/ET / 97 (04.06.2014)       |                                                                                                 |                                 |
|       |                                             |               |                   | 90                                  | 2019-20                     | F.No. Southern/1-4260676711/2019 /EOA (10.04.2019) |                                                                                                 |                                 |
|       |                                             |               |                   | 60                                  | 2020-21                     | F.No. Southern/1-7013058101/2020 /EOA (09.10.2020) |                                                                                                 |                                 |

\* Write applicable one:

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

**B2: Detail of Head of the Department for the program under consideration:****A. Name of the HoD : Dr.E.Muthukumaran****B. Nature of appointment: (Tick the applicable choice)**

- ❖ Regular ☒
- ❖ Contract ☐
- ❖ Ad hoc ☐

**C. Qualification: (Tick the applicable choice)**

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

**\*Please provide details:** \_\_\_\_\_

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

| Item (Information is to be provided cumulatively for all the shifts with explicit headings, wherever applicable)                                                                          | CAY | CAYm1 | CAYm2 | CAYm3 | CAYm4 (LYG) | CAYm5 (LYGm1) | CAYm6 (LYGm2) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-------|-------|-------|-------------|---------------|---------------|
| N= Sanctioned intake of the program (as per AICTE /Competent authority)                                                                                                                   | 60  | 60    | 60    | 60    | 60          | 60            | 90            |
| N1= Total no. of students admitted in the 1 <sup>st</sup> year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program | 28  | 20    | 26    | 24    | 21          | 20            | 31            |
| N2= Number of students admitted in 2 <sup>nd</sup> year in the same batch via lateral entry including leftover seats                                                                      | 5*  | 8     | 3     | 2     | 15          | 38            | 11            |
| N3= Separate division if any                                                                                                                                                              | 0   | 0     | 0     | 0     | 0           | 0             | 0             |
| N4= Total no. of students admitted in the 1 <sup>st</sup> year via all supernumerary quotas                                                                                               | 0   | 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.                                                   | 33  | 28    | 29    | 26    | 36          | 58            | 42            |

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.

\*Provisionally admitted till date

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

| Item (Students enrolled in the First Year on average over 3 academic years (CAY, CAYm1, and CAYm2))                                                                                       | CAY          | CAYm1 | CAYm2 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------|-------|
| N= Sanctioned intake of the program in the 1 <sup>st</sup> year (as per AICTE/Competent authority)                                                                                        | 60           | 60    | 60    |
| N1= Total no. of students admitted in the 1 <sup>st</sup> year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program | 28           | 20    | 26    |
| N4= Total no. of students admitted in the 1 <sup>st</sup> year via all supernumerary quotas                                                                                               | 0            | 0     | 0     |
| Enrolment Ratio (ER)= (N1+N4)/N                                                                                                                                                           | 46.67        | 33.33 | 43.33 |
| <b>Average ER= (ER_1+ ER_2+ ER_3)/3</b>                                                                                                                                                   | <b>41.11</b> |       |       |

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

| Item                                                                                                                                                                                                                                                                                                                                  | LYG   | LYGm1 | LYGm2 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|
| A*= (No. of students admitted in the 1 <sup>st</sup> year of that batch and those actually admitted in the 2 <sup>nd</sup> 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). | 35    | 58    | 42    |
| B=No. of students who graduated from the program in the stipulated course duration                                                                                                                                                                                                                                                    | 29    | 23    | 33    |
| Success Rate (SR)= (B/A)*100                                                                                                                                                                                                                                                                                                          | 82.86 | 39.66 | 78.58 |
| Average SR of three batches ((SR_1+SR_2+ SR_3)/3)                                                                                                                                                                                                                                                                                     | 67.03 |       |       |

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

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

| Academic Performance                                                                                                                                                                            | CAYm1 | CAYm2 | CAYm3 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|
| X= (Mean of 1 <sup>st</sup> year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 1 <sup>st</sup> year/10) | 7.76  | 8.283 | 8.033 |
| Y= Total no. of successful students                                                                                                                                                             | 20    | 26    | 24    |
| Z = Total no. of students appeared in the examination                                                                                                                                           | 20    | 26    | 24    |
| API = X* (Y/Z)                                                                                                                                                                                  | 7.76  | 8.283 | 8.033 |
| Average API = ( API_1 + API_2 + API_3)/3                                                                                                                                                        | 8.025 |       |       |

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

| Academic Performance                                                                                                                                                                            | CAYm1 | CAYm2 | CAYm3 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|
| X= (Mean of 2 <sup>nd</sup> year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 2 <sup>rd</sup> year/10) | 7.64  | 7.73  | 7.32  |
| Y= Total no. of successful students                                                                                                                                                             | 27    | 26    | 36    |
| Z =Total no. of students appeared in the examination                                                                                                                                            | 27    | 26    | 36    |
| API = X* (Y/Z)                                                                                                                                                                                  | 7.64  | 7.73  | 7.32  |
| Average API = ( API_1 + API_2 + API_3)/3                                                                                                                                                        | 7.56  |       |       |

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

| Academic Performance                                                                                                                                                                            | CAYm1 | CAYm2 | CAYm3 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|
| X= (Mean of 3 <sup>rd</sup> year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 3 <sup>rd</sup> year/10) | 8.12  | 7.42  | 7.53  |
| Y= Total no. of successful students                                                                                                                                                             | 26    | 36    | 58    |
| Z= Total no. of students appeared in the examination                                                                                                                                            | 26    | 36    | 58    |
| API = X* (Y/Z)                                                                                                                                                                                  | 8.12  | 7.42  | 7.53  |
| Average API = (API_1 + API_2 + API_3)/3                                                                                                                                                         | 7.69  |       |       |

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

| Item                                           | LYG   | LYGm1 | LYGm2 |
|------------------------------------------------|-------|-------|-------|
| FS*=Total no. of final year students           | 35    | 59    | 42    |
| X= No. of students placed                      | 35    | 44    | 36    |
| Y= No. of students admitted to higher studies  | 0     | 2     | 6     |
| Z= No. of students taking up entrepreneurship  | 0     | 1     | 0     |
| X + Y + Z =                                    | 35    | 47    | 42    |
| Placement Index (P) = (((X + Y + Z)/FS) * 100) | 100   | 79.66 | 100   |
| Average placement index = (P_1 + P_2 + P_3)/3  | 93.22 |       |       |

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

**PART C: Faculty Details in Department and Allied Departments**

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

**C1. Faculty details of Department and Allied Departments****Table No.C1:** Faculty details in the Department for the past 3 years including CAY

| S. No. | Name of the Faculty | Highest degree | University                               | Area of Specialization       | Date of Joining in this Institution | Experience in years in current institute | Designation at Time Joining in this Institution | Present Designation | The date on which Designated as Professor/ Associate Professor if any | Nature of Association (Regular/ Contract/Ad hoc) | If contractual mention Fulltime or (Part time or Hourly based) | Currently Associated(Y/N) | Date of Leaving if any (In case Currently Associated is " No" ) |
|--------|---------------------|----------------|------------------------------------------|------------------------------|-------------------------------------|------------------------------------------|-------------------------------------------------|---------------------|-----------------------------------------------------------------------|--------------------------------------------------|----------------------------------------------------------------|---------------------------|-----------------------------------------------------------------|
| 1.     | Dr.U.Suresh Kumar   | Ph.D.          | Anna University                          | Applied Electronics          | 06-08-2018                          | 6.4                                      | Professor                                       | Professor           | -                                                                     | Permanent                                        | -                                                              | N                         | 17-12-2024                                                      |
| 2.     | Dr.R.Kayalvizhi     | Ph.D.          | Annamalai University                     | Power Electronics and Drives | 06-05-2024                          | 1.03                                     | Professor                                       | Professor           | -                                                                     | Permanent                                        | -                                                              | N                         | 21-08-2025                                                      |
| 3.     | Dr.E.Muthukumaran   | Ph.D.          | Anna University                          | Power Systems Engineering    | 04-07-2012                          | 13.03                                    | Assistant Professor                             | Associate Professor | 02-01-2023                                                            | Permanent                                        | -                                                              | Y                         | -                                                               |
| 4.     | Dr.S.Sarojini Mary  | Ph.D.          | National Institute of Technology, Trichy | Power Electronics and Drives | 01-06-2020                          | 5.04                                     | Assistant Professor                             | Associate Professor | 03-07-2020                                                            | Permanent                                        | -                                                              | Y                         | -                                                               |
| 5.     | Dr.V.Sivakami       | Ph.D.          | National Institute of Technology, Trichy | Power Electronics and Drives | 07-04-2022                          | 3.06                                     | Assistant Professor                             | Associate Professor | 02-01-2023                                                            | Permanent                                        | -                                                              | Y                         | -                                                               |
| 6.     | Mr.D.Tamil Selvan   | M.E.           | Anna University                          | Power Electronics and Drives | 20-05-2010                          | 15.04                                    | Assistant Professor                             | Assistant Professor | -                                                                     | Permanent                                        | -                                                              | Y                         | -                                                               |
| 7.     | Mr.S.Pandiarajan    | M.E.           | Anna University                          | Power Systems Engineering    | 12-01-2013                          | 12.08                                    | Assistant Professor                             | Assistant Professor | -                                                                     | Permanent                                        | -                                                              | Y                         | -                                                               |

|     |                    |         |                   |                              |            |       |                     |                     |   |           |   |   |   |
|-----|--------------------|---------|-------------------|------------------------------|------------|-------|---------------------|---------------------|---|-----------|---|---|---|
| 8.  | Mrs.B.Muthu Selvi  | M.E.    | Anna University   | Power Electronics and Drives | 15-06-2015 | 10.03 | Assistant Professor | Assistant Professor | - | Permanent | - | Y | - |
| 9.  | Mr.D.Jayaraj       | M.E.    | Anna University   | Power Electronics and Drives | 11-06-2015 | 10.03 | Assistant Professor | Assistant Professor | - | Permanent | - | Y | - |
| 10. | Mr.G.Karthik       | M.E.    | Anna University   | Power Electronics and Drives | 17-06-2019 | 6.03  | Assistant Professor | Assistant Professor | - | Permanent | - | Y | - |
| 11. | Mrs.K.Sarasvathi   | M.E.    | Anna University   | Power Electronics and Drives | 27-07-2022 | 3.04  | Assistant Professor | Assistant Professor | - | Permanent | - | Y | - |
| 12. | Mrs.T.Jayanthi     | M.E.    | Anna University   | Power Electronics and Drives | 27-07-2022 | 3.02  | Assistant Professor | Assistant Professor | - | Permanent | - | Y | - |
| 13. | Mrs.J.Sherrin Banu | M.E.    | Anna University   | Power Electronics and Drives | 02-05-2023 | 2.05  | Assistant Professor | Assistant Professor | - | Permanent | - | Y | - |
| 14. | Mr.S.Nirmal kumar  | M.E.    | Anna University   | Power Electronics and Drives | 26-07-2023 | 2.02  | Assistant Professor | Assistant Professor | - | Permanent | - | Y | - |
| 15. | Ms.K.Bhuvaneswari  | M.E.    | Anna University   | Power Electronics and Drives | 26-07-2023 | 2.02  | Assistant Professor | Assistant Professor | - | Permanent | - | Y | - |
| 16. | Ms.D.Akshayaa      | M.Tech. | Sastra University | Power and Energy Systems     | 29-07-2024 | 1.02  | Assistant Professor | Assistant Professor | - | Permanent | - | Y | - |

## C2. Student-Faculty Ratio (SFR)

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

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

| Year                                                                                                                     | CAY   | CAYm1 | CAYm2 |
|--------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|
| UG <sub>1</sub> . B // 2 <sup>nd</sup> year students of UG <sub>1</sub> program                                          | 66    | 63    | 62    |
| UG <sub>1</sub> . C // 3 <sup>rd</sup> year students of UG <sub>1</sub> program                                          | 63    | 62    | 66    |
| UG <sub>1</sub> . D // 4 <sup>th</sup> year students of UG <sub>1</sub> program                                          | 62    | 66    | 66    |
| UG <sub>1</sub> // Total no.of students(2 <sup>nd</sup> , 3 <sup>rd</sup> , 4 <sup>th</sup> ) in UG <sub>1</sub> program | 191   | 191   | 194   |
| PG <sub>1</sub> . A // 1 <sup>st</sup> year students of PG <sub>1</sub> program                                          | 18    | 18    | 18    |
| PG <sub>1</sub> . B // 2 <sup>nd</sup> year students of PG <sub>1</sub> program                                          | 18    | 18    | 18    |
| PG <sub>1</sub> // Total no.of students(1 <sup>st</sup> , 2 <sup>nd</sup> ) in PG <sub>1</sub> program                   | 36    | 36    | 36    |
| DS=Total no. of students in all UG and PG programs in the Department                                                     | 227   | 227   | 230   |
| AS=Total no. of students of all UG and PG programs in allied departments                                                 | 0     | 0     | 0     |
| <b>S=Total no. of students in the Department (DS) and allied departments (AS)</b>                                        | 227   | 227   | 230   |
| DF=Total no. of faculty members in the Department                                                                        | 13    | 15    | 14    |
| 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)                                        | 13    | 15    | 14    |
| FF=The faculty members in F who have a 100% teaching load in the first-year courses                                      | 0     | 0     | 0     |
| <b>Student Faculty Ratio (SFR)=S/(F-FF)</b>                                                                              | 17.46 | 15.13 | 16.42 |
| Average SFR for 3 years                                                                                                  | 16.34 |       |       |

**C3: Faculty Qualification**

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

**Table No.C3.1:** Faculty qualification.

| Year  | X | Y  | RF | FQI= $2.5 * [(10X + 4Y)/RF]$ |
|-------|---|----|----|------------------------------|
| CAY   | 3 | 10 | 11 | 15.9                         |
| CAYm1 | 4 | 11 | 11 | 19.09                        |
| CAYm2 | 4 | 10 | 12 | 16.67                        |

**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 Faculty(RF1) | Available Faculty(AF1) | Required Faculty(RF2) | Available Faculty(AF2) | Required Faculty(RF3) | Available Faculty(AF3) |
| CAY             | 1                     | 0                      | 2                     | 3                      | 8                     | 10                     |
| CAYm1           | 1                     | 1                      | 2                     | 3                      | 8                     | 11                     |
| CAYm2           | 1                     | 1                      | 3                     | 3                      | 8                     | 10                     |
| Average Numbers | RF1=1                 | AF1=0.67               | RF2=2.33              | AF2=3                  | RF3=8                 | AF3=10.33              |

**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.

| S.N.                  | Name of the Person | Designation & Organization                                                     | Name of the Course                 | No. of hours handled |
|-----------------------|--------------------|--------------------------------------------------------------------------------|------------------------------------|----------------------|
| <b>CAYm1(2024-25)</b> |                    |                                                                                |                                    |                      |
| 1                     | Mrs.G.Thilagavathy | Former Technical Manager, Arise Engineering & Construction Pvt Ltd., Singapore | Power Electronics                  | 54                   |
| 2                     | Mrs.G.Thilagavathy | Former Technical Manager, Arise Engineering & Construction Pvt Ltd., Singapore | Disaster risk reduction Management | 32                   |

|                            |                                  |                                                                                         |                                                    |    |
|----------------------------|----------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------------|----|
| 3                          | Mrs.G.Thilagavathy               | Former Technical Manager,<br>Arise Engineering &<br>Construction Pvt Ltd.,<br>Singapore | Professional<br>Development                        | 30 |
| <b>Total no. of hours:</b> |                                  |                                                                                         |                                                    | 52 |
| <b>CAYm2(2023-24)</b>      |                                  |                                                                                         |                                                    |    |
| 1                          | Mrs.P.Magdelin<br>Jenifer Princy | Former Assistant Professor of<br>Saranathan College of<br>Engineering                   | Electrical<br>Machines II                          | 30 |
| 2                          | Mrs.P.Magdelin<br>Jenifer Princy | Former Assistant Professor of<br>Saranathan College of<br>Engineering                   | Basic Electrical<br>and Electronics<br>Engineering | 22 |
| <b>Total no. of hours:</b> |                                  |                                                                                         |                                                    | 52 |
| <b>CAYm3(2022-23)</b>      |                                  |                                                                                         |                                                    |    |
| 1                          | Mr.G.Gurumoorthy                 | Assistant Manager,<br>ESAF Trichy                                                       | Protection &<br>Switch gear                        | 30 |
| 2                          | Mr.G.Gurumoorthy                 | Assistant Manager,<br>ESAF Trichy                                                       | Special Electrical<br>Machines                     | 25 |
| <b>Total no. of hours:</b> |                                  |                                                                                         |                                                    | 53 |

**C6: Academic Research**

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

| S.N. | Item                                             | CAYm1 | CAYm2 | CAYm3 |
|------|--------------------------------------------------|-------|-------|-------|
| 1    | No. of peer reviewed journal papers published    | 7     | 3     | -     |
| 2    | No. of peer reviewed conference papers published | 4     | 2     | 7     |
| 3    | No. of books/book chapters published             | 3     | -     | -     |

**C7: Sponsored Research Project**

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

| S.N.                     | PI<br>name         | Co-PI<br>name<br>if any | Name of the<br>Dept., where<br>project is<br>sanctioned | Project title*                                                                                                      | Name of<br>the<br>Funding<br>agency | Duration<br>of the<br>project | Amount<br>(Lacs) |
|--------------------------|--------------------|-------------------------|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------|------------------|
| <b>CAYm1 (2024-2025)</b> |                    |                         |                                                         |                                                                                                                     |                                     |                               |                  |
| 1                        | Mrs.J.Sherrin Banu | -                       | EEE                                                     | Neural Network<br>based Adaptive<br>power Management<br>system in IoT<br>Devices                                    | Marcello<br>Tech                    | 6 Months                      | 1.5              |
| 2                        | Mrs.J.Sherrin Banu | -                       | EEE                                                     | Solar Powered Multi<br>Stage Protection for<br>Electrical Yard or Panel<br>Room using<br>IOT-A low cost<br>solution | Sri Chellam<br>Industries           | 6 Months                      | 1.5              |
| <b>Amount Received</b>   |                    |                         |                                                         |                                                                                                                     |                                     |                               | <b>3.0</b>       |

| CAYm2 (2023-2024)                          |                  |   |     |                                                       |                                      |          |      |
|--------------------------------------------|------------------|---|-----|-------------------------------------------------------|--------------------------------------|----------|------|
| 3                                          | Dr.V.Sivakami    | - | EEE | Design of Solar Car with Battery and Real Time Access | Sri Chellam Industries               | 4 Months | 1.75 |
| 4                                          | Dr.V.Sivakami    | - | EEE | Design of Railway Platform for Accident Prevention    | AVM Engineering Industry, Coimbatore | 6 Months | 1.25 |
| Amount Received                            |                  |   |     |                                                       |                                      |          | 3.00 |
| CAYm3 (2022-2023)                          |                  |   |     |                                                       |                                      |          |      |
| 5                                          | Mrs.K.Sarasvathi | - | EEE | Modernized Rail Flaw Detection using Robot            | AVM Engineering Industry, Coimbatore | 6 Months | 2.00 |
| 6                                          | Dr.V.Sivakami    | - | EEE | IoT Based Energy Meter Reading for Auto Billing       | Sri Chellam Industries               | 6 Months | 1.00 |
| Amount Received                            |                  |   |     |                                                       |                                      |          | 3.00 |
| Total Amount received for the past 3 years |                  |   |     |                                                       |                                      |          | 9.00 |

**C8: Consultancy Work**

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

| S.N.                                              | PI name           | Co-PI names if any | Name of the Dept., where project is sanctioned | Project title*                                                           | Name of the Funding agency         | Duration of the project | Amount (Lacs) |
|---------------------------------------------------|-------------------|--------------------|------------------------------------------------|--------------------------------------------------------------------------|------------------------------------|-------------------------|---------------|
| CAYm1                                             |                   |                    |                                                |                                                                          |                                    |                         |               |
| 1                                                 | Dr.E.Muthukumaran | Mr.D.Tamilselvan   | EEE                                            | Electrification work & design of circuit systems in super market         | Kannan Super Market, Kallakurichi  | 1 year                  | 4.0           |
| 2                                                 | Dr.E.Muthukumaran | Mrs.B.Muthuselvi   | EEE                                            | Solar Power Irrigation System for Sustainable Agriculture                | Mr.Sivalingam Agriculturalist      | 6 Months                | 1.0           |
| Amount received (Rs.)                             |                   |                    |                                                |                                                                          |                                    |                         | 5.0           |
| CAYm2                                             |                   |                    |                                                |                                                                          |                                    |                         |               |
| 1                                                 | Dr.V.Sivakami     | Mrs.T.Jayanthi     | EEE                                            | Wiring and Installation                                                  | Sri Chellam Electrical Enterprises | 2 years                 | 4.0           |
| Amount received (Rs.)                             |                   |                    |                                                |                                                                          |                                    |                         | 4.0           |
| CAYm3                                             |                   |                    |                                                |                                                                          |                                    |                         |               |
| 1                                                 | Mr.D.Tamilselvan  | Mrs.T.Jayanthi     | EEE                                            | Efficient Pumping Solutions for Sustainable Water Management             | AVM Engineering Industries         | 1 year                  | 2.0           |
| 2                                                 | Dr.E.Muthukumaran | Mrs.J.Sherrin Banu | EEE                                            | High Reactive Power Compensation Accuracy for Cascaded H-Bridge Inverter | Marcello Tech                      | 3 years                 | 3.0           |
| Amount received (Rs.)                             |                   |                    |                                                |                                                                          |                                    |                         | 5.0           |
| Total amount (Lacs) received for the past 3 years |                   |                    |                                                |                                                                          |                                    |                         | 14.0          |

**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.

| S.N.                                                     | Faculty name       | Project title/ Support for Activity                                                 | Duration | Amount (Lacs)        | Amount Utilized (Lacs)   | Outcomes of the project      |
|----------------------------------------------------------|--------------------|-------------------------------------------------------------------------------------|----------|----------------------|--------------------------|------------------------------|
| <b>CAYm1</b>                                             |                    |                                                                                     |          |                      |                          |                              |
| 1                                                        | Mrs.J.Sherrin Banu | Electronic Medicine Dispenser                                                       | 6 months | 0.6<br>(Rs.60,000/-) | 0.5253<br>(Rs.52,530/-)  | Working Model                |
| 2                                                        | Mr.S.Pandiarajan   | Automatic Vehicle Control by Identifying Alcohol in a Motorists breath.             | 6 months | 0.5<br>(Rs.50,000/-) | 0.49<br>(Rs.49,900/-)    | Prototype                    |
| 3                                                        | Dr.S.Sarojini Mary | Enhanced Power Generation from Piezo electric Technology using DC-DC converter      | 6 months | 0.5<br>(Rs.50,000/-) | 0.4849<br>(Rs.48,490/-)  | Prototype                    |
| <b>Amount received (Rs.)</b>                             |                    |                                                                                     |          | <b>1.6</b>           | <b>1.5092</b>            |                              |
| <b>CAYm2</b>                                             |                    |                                                                                     |          |                      |                          |                              |
| 1                                                        | Mrs.B. Muthuslevi  | Design and Development of Writing Robot using Speech Process                        | 6 months | 0.5<br>(Rs.50,000/-) | 0.4654<br>(Rs.46,540/-)  | Working Model & Patent Filed |
| 2                                                        | Dr.E.Muthukumaran  | Hand Gesture Control Wheelchair with Obstacle and Fall Detection                    | 6 months | 0.5<br>(Rs.50,000/-) | 0.49841<br>(Rs.49,841/-) | Working Model & Patent Filed |
| 3                                                        | Mr.D.Tamilselvan   | Detachable Conversion Kit for Manual Wheel Chair to Electrical Trike                | 6 months | 0.5<br>(Rs.50,000/-) | 0.4961<br>(Rs.49,610/-)  | Working Model & Patent Filed |
| <b>Amount received (Rs.)</b>                             |                    |                                                                                     |          | <b>1.5</b>           | <b>1.45991</b>           |                              |
| <b>CAYm3</b>                                             |                    |                                                                                     |          |                      |                          |                              |
| 1                                                        | Mrs.B. Muthuslevi  | Self-Charging Electric Bike                                                         | 6 months | 0.8<br>(Rs.80,000/-) | 0.62305<br>(Rs.62,305/-) | Prototype                    |
| 2                                                        | Mr.D.Tamilselvan   | Solar Tree- Based Energy Harvesting, Tracking, and Fault Detection System using IoT | 6 months | 0.5<br>(Rs.50,000/-) | 0.47536<br>(Rs.47,536/-) | Prototype                    |
| 3                                                        | Dr.V.Sivakami      | IoT Based Energy Meter Reading for Auto Billing                                     | 6 months | 0.5<br>(Rs.50,000/-) | 0.49752<br>(Rs.49,752/-) | Working Model                |
| <b>Amount received (Rs.)</b>                             |                    |                                                                                     |          | <b>1.8</b>           | <b>1.59593</b>           | -                            |
| <b>Total amount (Lacs) received for the past 3 years</b> |                    |                                                                                     |          |                      | <b>4.56504</b>           | -                            |

**PART-D: Laboratory Infrastructure in the Department**

(Data to be filled in for the Department).

**D1: Adequate and Well-Equipped Laboratories, and Technical Manpower****Table No.D1.1:** List of laboratories and technical manpower.

| S.N. | Name of the Laboratory  | No. of students per setup (Batch Size) | Name of the major equipment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Weekly utilization status (all the courses for which the lab is utilized) | Technical Manpower support  |                     |               |
|------|-------------------------|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------|---------------------|---------------|
|      |                         |                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                           | Name of the technical staff | Designation         | Qualification |
| 1.   | Electrical Machines Lab | 30                                     | <ul style="list-style-type: none"> <li>❖ DC Shunt Motor with Loading Arrangement</li> <li>❖ DC Shunt Motor Coupled with Three phase Alternator</li> <li>❖ DC Series Motor with Loading Arrangement</li> <li>❖ DC Compound motor with loading arrangement</li> <li>❖ DC Shunt Motor Coupled With DC Compound Generator</li> <li>❖ DC Shunt Motor Coupled with DC Shunt Generator</li> <li>❖ DC Shunt Motor Coupled with Three Phase Salient Pole Alternator</li> <li>❖ DC Shunt Motor Coupled with Three phase non-salient pole Alternator</li> <li>❖ DC Shunt Motor Coupled with Three phase Slip ring Induction motor</li> <li>❖ Three Phase Induction Motor with Loading Arrangement</li> <li>❖ Single Phase Induction Motor with Loading</li> </ul> | 12                                                                        | A.Mohamed Iliyas            | Technical Assistant | Diploma       |
| 2    | Power System Laboratory | 30                                     | <ul style="list-style-type: none"> <li>❖ Personal Computers (Intel Core i3, 500 GB HDD, 8 GB RAM)</li> <li>❖ Server (Intel Core i3, 1 TB, 8 GB RAM or higher) (High Speed Processor)</li> <li>❖ <b>Licensed Software:</b> MIPOWER</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 30                                                                        | A.Aalvin                    | Technical Assistant | Diploma       |

|   |                              |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |    |              |                     |         |
|---|------------------------------|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|--------------|---------------------|---------|
| 3 | Power Electronics Laboratory | 30 | <ul style="list-style-type: none"> <li>❖ Single phase Semi converter</li> <li>❖ Single phase Full converter</li> <li>❖ Step down chopper</li> <li>❖ Step up chopper</li> <li>❖ Single phase PWM Inverter</li> <li>❖ Three phase PWM Inverter</li> <li>❖ AC Voltage Controller</li> <li>❖ V-I Characteristics of SCR</li> <li>❖ V-I Characteristics of TRIAC.</li> <li>❖ V-I Characteristics of MOSFET</li> <li>❖ V-I Characteristics of IGBT</li> <li>❖ Temperature Measurement</li> <li>❖ Trainer using RTD</li> <li>❖ Dual regulated DC power supply</li> <li>❖ Single phase SCR Converter</li> <li>❖ Single phase SCR Converter</li> <li>❖ IC trainer kits</li> <li>❖ Trainer Kit</li> <li>❖ SCR phase control kit</li> <li>❖ Triac phase control Kit</li> <li>❖ SCR Three phase control kit</li> <li>❖ SCR three phase cyclo converter kit</li> <li>❖ IGBT chopper Kit</li> <li>❖ Series inverter kit</li> <li>❖ Parallel inverter Kit</li> <li>❖ IGBT based PWM inverter module kit</li> <li>❖ V/I Commutation Module kit</li> <li>❖ Three Phase Half Controlled Rectifier Kit</li> <li>❖ Single phase Half controlled rectifier kit</li> <li>❖ Single Phase Full Controlled Rectifier Kit</li> <li>❖ dsPIC 30F4011 Based PWM Controller</li> <li>❖ 3 phase IGBT Module</li> <li>❖ 8051 Microcontroller kit with stepper motor interfacing</li> <li>❖ DSP starter Kit</li> <li>❖ TMS320F2407A based DSP controller</li> <li>❖ 3phase IGBT Module</li> <li>❖ 1 HP PWSM motor setup</li> <li>❖ 1HP BLDC Motor</li> <li>❖ TMS320F2407A Based Controller</li> <li>❖ SRM Based Power module</li> <li>❖ 1 HP SR motor spring</li> </ul> | 30 | R.Maragatham | Technical Assistant | Diploma |
|---|------------------------------|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|--------------|---------------------|---------|

|          |                                        |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |    |                  |                     |         |
|----------|----------------------------------------|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------------------|---------------------|---------|
|          |                                        |    | load setup                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |    |                  |                     |         |
| <b>4</b> | Control and Instrumentation Laboratory | 30 | <ul style="list-style-type: none"> <li>❖ Flow Measurement Trainer kit</li> <li>❖ Position Control Systems Kit</li> <li>❖ AC Synchro transmitter &amp; receiver</li> <li>❖ Optical sensor</li> <li>❖ Strain Gauge Kit with Handy lever beam</li> <li>❖ IC Trainer kit</li> <li>❖ Design of lag-lead compensator</li> <li>❖ P.PI,PID controller</li> <li>❖ ADC Trainer Kit</li> <li>❖ DAC Trainer Kit</li> <li>❖ LVDT Trainer Kit</li> <li>❖ Schering Bridge</li> <li>❖ Anderson Bridge</li> <li>❖ Maxwell Inductance bridge</li> <li>❖ Hay bridge</li> <li>❖ Kelvin Double bridge</li> <li>❖ Wheatstone bridge</li> <li>❖ Analog IC Tester</li> <li>❖ Optical sensor</li> <li>❖ Digital live wire detector</li> <li>❖ AC servomotor Trainer Kit</li> <li>❖ Ac Servomotor Position controller</li> <li>❖ DC stepper motor</li> <li>❖ PLC trainer kit</li> </ul> | 18 | Mr.J.Vineeth     | Technical Assistant | Diploma |
| <b>5</b> | Renewable Energy systems Laboratory    | 30 | <ul style="list-style-type: none"> <li>❖ Solar PV Module Trainer Kit</li> <li>❖ Hybrid Wind Solar Module(24 watts Permanent Based Microwind / Solar generation trainer Kit)</li> <li>❖ Personal Computers (Intel Core i3, 500 GB HDD, 8 GB RAM)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 12 | R.Shanmuga Valli | Technical Assistant | B.E     |

## D2: `Safety Measures in Laboratories

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

| S.N. | Name of the Laboratory                                  | Safety measures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.   | Power system simulation laboratory                      | <ul style="list-style-type: none"> <li>❖ Use laboratory systems properly and carefully.</li> <li>❖ Maintain a clean workspace.</li> <li>❖ Locate fire extinguishers and first aid stations in advance.</li> <li>❖ Ensure MCBs are installed and functional on all circuits.</li> <li>❖ Proper seating arrangements are available.</li> <li>❖ Safe electrical sockets and cables are provided.</li> <li>❖ Adequate lighting and ventilation are maintained.</li> <li>❖ Clear walkways are ensured to avoid tripping hazards.</li> <li>❖ Safe system shutdown procedures are followed</li> </ul>                                                                                                                                                                            |
| 2.   | Renewable Energy Systems laboratory/Research Laboratory | <ul style="list-style-type: none"> <li>❖ Secure moving parts of wind or mechanical models-</li> <li>❖ Must wear shoes at all times.</li> <li>❖ Use laboratory systems properly and carefully.</li> <li>❖ Maintain a clean workspace.</li> <li>❖ Locate fire extinguishers and first aid stations in advance.</li> <li>❖ Check all circuit connections and layouts thoroughly before powering on.</li> <li>❖ Verify MCBs and grounding before use.</li> <li>❖ Use insulated tools for electrical connections</li> </ul>                                                                                                                                                                                                                                                    |
| 3.   | Electrical machines laboratory                          | <ul style="list-style-type: none"> <li>❖ Rubber mats are provided near machines.</li> <li>❖ Proper earthing of machines is ensured.</li> <li>❖ Safety guards are installed on rotating parts.</li> <li>❖ Emergency power cut-off facilities are available.</li> <li>❖ Safety sign boards and warnings are displayed.</li> <li>❖ Work benches are well organized</li> <li>❖ Must wear shoes at all times.</li> <li>❖ Avoid crossing wires between desks or work areas to prevent hazards.</li> <li>❖ Wear leather or rubber gloves for machine handling.</li> <li>❖ Ensure MCBs protect all machine circuits.</li> <li>❖ Switching area/DC converter is isolated.</li> <li>❖ Fire safety equipment is available.</li> <li>❖ First-aid facilities are available.</li> </ul> |
| 4.   | Project laboratory                                      | <ul style="list-style-type: none"> <li>❖ Maintain a clean workspace.</li> <li>❖ Work benches are well organized and clean.</li> <li>❖ Safe soldering tools with proper stands are provided.</li> <li>❖ Wear appropriate PPE including safety goggles, lab coats, and closed-toe shoes, avoid loose clothing and jewelry.</li> <li>❖ Power isolation facilities are available.</li> <li>❖ Install MCBs on project power supplies</li> </ul>                                                                                                                                                                                                                                                                                                                                |
| 5.   | Power Electronics laboratory                            | <ul style="list-style-type: none"> <li>❖ Students come with proper uniform and must wear shoes at all times.</li> <li>❖ Verify all connections for shorts, ground loops, or voltage mismatches before powering ON.</li> <li>❖ Use short wires to avoid tangles.</li> <li>❖ Fuses are installed at each board</li> <li>❖ Equipped all outlets with CBs for overload protection.</li> <li>❖ Fire safety equipment is available.</li> <li>❖ First-aid facilities are available.</li> </ul>                                                                                                                                                                                                                                                                                   |

|    |                           |                                                                                                                                                                                                                                                                                                                                                                                           |
|----|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6. | Control system laboratory | <ul style="list-style-type: none"> <li>❖ Students come with proper uniform and must wear shoes at all times.</li> <li>❖ Verify all connections for shorts, ground loops, or voltage mismatches before powering ON.</li> <li>❖ Use short wires to avoid tangles.</li> <li>❖ Fuses are installed at each board</li> <li>❖ Equipped all outlets with CBs for overload protection.</li> </ul> |
|----|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### D3: Project Laboratory/Research Laboratory

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

| S.N. | Name of the Laboratory |
|------|------------------------|
| 1.   | Project Laboratory     |
| 2.   | 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 $((NS1*0.8) + (NS2*0.2)) / (\text{No. of required faculty (RF4)})$ ;<br>Percentage= $((NS1*0.8) + (NS2*0.2)) / RF4$ |
|-------|-------------------------------------------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| CAY   | 600                                       | 30                                   | 28                                                                                                                  | 10                                                          | $((28*0.8) + (10*0.2)) / 30 = (22.4 + 2) / 30 = 81.33\%$                                                                                               |
| CAYm1 | 600                                       | 30                                   | 29                                                                                                                  | 9                                                           | $((29*0.8) + (9*0.2)) / 30 = (23.2 + 1.8) / 30 = 83.33\%$                                                                                              |
| CAYm2 | 600                                       | 30                                   | 29                                                                                                                  | 9                                                           | $((29*0.8) + (9*0.2)) / 30 = (23.2 + 1.8) / 30 = 83.33\%$                                                                                              |

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

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

| Items                                  | Budgeted in CFY | Actual expenses in CFY (till ...) | Budgeted in CFYm1 | Actual Expenses in CFYm1 | Budgeted in CFYm2 | Actual Expenses in CFYm2 | Budgeted in CFYm3 | Actual Expenses in CFYm3 |
|----------------------------------------|-----------------|-----------------------------------|-------------------|--------------------------|-------------------|--------------------------|-------------------|--------------------------|
| Infrastructure Built-Up                | 28.50           | 11.52                             | 26.50             | 25.97                    | 84.50             | 82.16                    | 32.10             | 30.35                    |
| Library                                | 0.80            | 0.36                              | 0.25              | 0.21                     | 1.50              | 1.30                     | 2.60              | 2.56                     |
| Laboratory equipment                   | 23.50           | 8.19                              | 25.50             | 24.13                    | 38.50             | 37.65                    | 11.30             | 11.28                    |
| Teaching and non-teaching staff salary | 625.00          | 328.15                            | 600.25            | 600.10                   | 497.10            | 496.89                   | 448.50            | 448.38                   |
| Outreach Programs                      | 2.10            | 0.13                              | 2.95              | 2.92                     | 2.60              | 2.39                     | 0.75              | 0.67                     |

|                                          |                |               |                |                |                |                |               |               |
|------------------------------------------|----------------|---------------|----------------|----------------|----------------|----------------|---------------|---------------|
| R&D                                      | 0.75           | -             | 0.50           | 0.44           | 0.50           | 0.40           | 0.25          | 0.20          |
| Training, Placement and Industry linkage | 4.75           | 4.33          | 4.50           | 4.47           | 5.20           | 4.95           | 2.90          | 2.83          |
| SDGs                                     | 74.33          | 53.64         | 73.87          | 73.60          | 73.27          | 72.73          | 66.75         | 66.10         |
| Entrepreneurship                         | 49.55          | 35.76         | 49.25          | 49.06          | 48.85          | 48.49          | 44.5          | 44.07         |
| Others*, pl. specify                     | 371.62         | 268.18        | 369.38         | 368.01         | 366.38         | 363.66         | 333.75        | 330.52        |
| <b>Total amount</b>                      | <b>1180.90</b> | <b>710.26</b> | <b>1152.95</b> | <b>1148.92</b> | <b>1118.40</b> | <b>1110.61</b> | <b>943.40</b> | <b>936.97</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 CFY | Actual expenses in CFY (till ...) | Budgeted in CFYm1 | Actual Expenses in CFYm1 | Budgeted in CFYm2 | Actual Expenses in CFYm2 | Budgeted in CFYm3 | Actual Expenses in CFYm3 |
|--------------------------------------------------|-----------------|-----------------------------------|-------------------|--------------------------|-------------------|--------------------------|-------------------|--------------------------|
| Laboratory equipment                             | 15.20           | 10.64                             | 10.10             | 9.89                     | 10.2              | 9.69                     | 9.10              | 8.64                     |
| Software                                         | 3.0             | 0                                 | 3.0               | 0                        | -                 | -                        | -                 | 0                        |
| SDGs                                             | 0.20            | 0.06                              | 0.15              | 0.15                     | 0.15              | 0.12                     | 0.1               | 0.1                      |
| Support for faculty development                  | 0.26            | 0.11                              | 0.16              | 0.16                     | 0.24              | 0.24                     | 0.26              | 0.26                     |
| R & D                                            | 0.39            | 0.19                              | 0.42              | 0.42                     | 0.43              | 0.36                     | 0.42              | 0.42                     |
| Industrial Training, Industry expert, Internship | 0.60            | 0.24                              | 0.55              | 0.55                     | 0.65              | 0.65                     | 0.50              | 0.50                     |
| Miscellaneous expenses *                         | 2.97            | 1.18                              | 2.53              | 2.5                      | 2.7               | 2.56                     | 2.55              | 2.42                     |
| <b>Total amount</b>                              | <b>22.62</b>    | <b>12.44</b>                      | <b>16.91</b>      | <b>13.64</b>             | <b>14.37</b>      | <b>13.63</b>             | <b>12.93</b>      | <b>12.34</b>             |