**NATIONAL BOARD OF ACCREDITATION**

**Data Capturing Points of the Program Applied for**

**NBA Accreditation– Tier I UG (Engineering) Institute Programs**

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

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

**A1: Name of the Institute: Thiagarajar College of Engineering**

Year of Establishment : 1957 Location of the Institute: Madurai

**A2: Institute Address: -**

City : Madurai State :Tamilnadu

Pin Code : 625015 Website:www.tce.edu

E-mail : principal@tce.edu Phone No (with STD Code):0452 - 2482240

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

Name of the University : Anna University City : Chennai

**A4. Type of the Institution:**

| | |
|---|---|
| Institute of National Importance | ☐ |
| Deemed to be University | ☐ |
| University | ☐ |
| Autonomous | ✓ |
| Non-Autonomous (Affiliated) | ☐ |
| Any Other (Please specify*) | ☐ |

Provide Details:

***The year of grant of autonomous is 1987. The autonomous status is applicable till the academic year 2031-32.***

**A5. Ownership Status:**

| | |
|---|---|
| Central Government | ☐ |
| State Government | ☐ |
| Grant-in-Aid | ✓ |
| Self-financing Trust | ☐ |
| Any Other (Please specify*) | ☐ |

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

**No. of UG programs : 11**

**No. of PG programs : 11**

Table No. A7: Details of all the programs being offered by the Institution.

| S. No | Level of Program | Program Name | Year of start | Year of Close | Name of the department |
|---|---|---|---|---|---|
| 1. | UG | Civil Engineering | 1957 | -- | Civil Engineering |
| 2. | UG | Mechanical Engineering | 1957 | -- | Mechanical Engineering |
| 3. | UG | Electrical and Electronics Engineering | 1957 | -- | Electrical and Electronics Engineering |
| 4. | UG | Electronics and Communication Engineering | 1978 | -- | Electronics and Communication Engineering |
| 5. | UG | Computer Science and Engineering | 1984 | -- | Computer Science and Engineering |
| 6. | UG | Information Technology | 1999 | -- | Information Technology |
| 7. | UG | Mechatronics | 2014 | -- | Mechatronics |
| 8. | UG | Computer Science and Business System | 2020 | -- | Computer Science and Business System |
| 9. | UG | Architecture | 1995 | -- | Architecture |
| 10. | UG | . Interior Design | 2024 | -- | Architecture |
| 11. | UG | Computer Science and Engineering (AI & ML) | 2024 | -- | Computer Science and Engineering |
| 12. | PG | Structural Engineering | 1972 | -- | Civil Engineering |
| 13. | PG | Construction Engineering and Management | 2022 | -- | Civil Engineering |
| 14. | PG | Communication Systems | 1995 | -- | Electronics and Communication Engineering |
| 15. | PG | Computer Science and Engineering | 2001 | -- | Computer Science and Engineering |

| S. No | Level of Program | Program Name | Year of start | Year of Close | Name of the department |
|---|---|---|---|---|---|
| 16. | PG | Master of Computer Applications | 1985 | -- | Computer Applications |
| 17. | PG | Urban Planning | 2024 | -- | Architecture |
| 18. | PG | Power System Engineering | 1972 | 2024 | Electrical and Electronics Engineering |
| 19. | PG | Engineering Design | 2022 | 2023 | Mechanical Engineering |
| 20. | PG | Industrial Engineering | 1986 | 2022 | Mechanical Engineering |
| 21. | PG | Infrastructure Engineering and Management | 2011 | 2022 | Civil Engineering |
| 22. | PG | Environmental Engineering | 2007 | 2023 | Civil Engineering |

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

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

| S.No | Name of the Department | Name of the Program |
|---|---|---|
| 1 | Civil Engineering | B.E. Civil Engineering |
| 2 | Mechanical Engineering | B.E. Mechanical Engineering |
| 3 | Electrical and Electronics Engineering | B.E. Electrical and Electronics Engineering |
| 4 | Electronics and Communication Engineering | B.E. Electronics and Communication Engineering |

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

| S.No | Name of the Department | Name of Allied Departments/Cluster |
|---|---|---|
| 1 | Mechanical Engineering | Mechatronics |
| 2 | Electronics and Communication Engineering | Mechatronics |

## PART-B: Program information

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

**B1.: Provide Separate 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/ Competent Authority Approval Details | Accreditation Status* | No.of times program accredited |
|---|---|---|---|---|---|---|---|---|
| 1. | Electrical and Electronics Engineering | 1957 | 120 | No | NA | F.No. Southern/1-36479607704/2023/EOA Date: 10-Jun-2023 | Accredited for Three Years 2022 to 2025 | Four times (1998. 2006, 2013, 2018) Extended for three years after Compliance visit in 2022 |

* 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. M. Saravanan**

**B. Nature of Appointment: (Tick the applicable choice)**

- **Regular** ✓
- **Contract** ☐
- **Add 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 2024-25** | **CAY*m*1 2023-24** | **CAY*m*2 2022-23** | **CAYm3 2021-22** | **CAYm4 (LYG) 2020-21** | **CAYm (LYGm1) 2019-20** | **CAYm6 (LYGm2) 2018-19** |
|---|---|---|---|---|---|---|---|
| N= Sanctioned intake of the program(asper AICTE /Competent authority) | 120 | 120 | 120 | 120 | 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 | 122 | 121 | 118 | 117 | 108 | 124 | 123 |
| N2= Number of students admittedin 2nd year in the same batch via lateral entry including leftover seats | - | 18 | 24 | 23 | 30 | 14 | 13 |
| N3= Separate division if any | 2 | 6 | 2 | 6 | 9 | 9 | 8 |
| N4= Total no. of students admitted in the 1st year via all supernumerary quotas | - | - | - | - | - | - | - |
| Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points. | **124** | **145** | **144** | **146** | **147** | **147** | **144** |

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

## B4. Enrolment Ratio in the First Year

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

| Item **(Students enrolled in the First Year on averageover 3 academic years (CAY, CAYm1 and CAYm2))** | **CAY 2024-25** | **CAY*m* 1 2023-24** | **CAY*m* 2 2022-23** |
|---|---|---|---|
| N= Sanctioned intake of the program in the 1st year (as per AICTE/Competent authority) | 120 | 120 | 120 |
| N1= Total no. of students admitted in the 1st year minus theno. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program | 122 | 121 | 118 |
| N4= Total no. of students admitted in the 1st year via all supernumerary quotas | - | - | - |
| Enrolment Ratio (ER)= (N1+N4)/N | **1.02** | **1.01** | **0.98** |
| **Average ER=** (ER_1+ ER_2+ ER_3)/3 | **1.00** | | |

## 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** | **LYG 2023-24** | **LYGm1 2022-23** | **LYGm2 2021-22** |
|---|---|---|---|
| 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). | **147** | **147** | **144** |
| B=No. of students who graduated from the programin the stipulated course duration | **124** | **134** | **141** |
| Success Rate (SR)= (B/A) * 100 | **84.35** | **91.15** | **97.91** |
| Average SR of three batches ((SR_1+ SR_2+ SR_3)/3) | **91.13** | | |

**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. 4.2.1 should be the sum of the sanctioned intake (N) and the lateral entry including leftover seats (N2).

## 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 | CAY m1 2023-24 | CAY m2 2022-23 | CAY m3 2021-22 |
|---|---|---|---|
| X= (Mean of 1st year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 1st year/10) | 7.67 | 7.68 | 7.58 |
| Y= Total no. of successful students | 124 | 109 | 118 |
| Z =Total no. of students appeared in the examination | 125 | 116 | 118 |
| API = X* (Y/Z) | 7.60 | 7.21 | 7.58 |
| Average API = (AP1 + AP2 + AP3)/3 | **7.46** | | |

## 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 | CAY m1 2023-24 | CAY m2 2022-23 | CAY m3 2021-22 |
|---|---|---|---|
| X= (Mean of 2nd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 2rd year/10) | 7.56 | 7.54 | 7.88 |
| Y= Total no. of successful students | 133 | 141 | 141 |
| Z =Total no. of students appeared in the examination | 133 | 141 | 143 |
| API = X* (Y/Z) | 7.56 | 7.54 | 7.77 |
| Average API = (AP1 + AP2 + AP3)/3 | **7.62** | | |

## 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 | CAY m1 2023-24 | CAY m2 2022-23 | CAY m3 2021-22 |
|---|---|---|---|
| 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) | 7.70 | 7.62 | 7.90 |
| Y= Total no. of successful students | 140 | 139 | 140 |
| Z= Total no. of students appeared in the examination | 141 | 141 | 141 |
| API = X* (Y/Z) | 7.65 | 7.51 | 7.84 |
| Average API = (AP1 + AP2 + AP3)/3 | **7.67** | | |

## 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 | 142 | 140 | 141 |
| X= No. of students placed | 83 | 105 | 116 |
| Y= No. of students admitted to higher studies | 12 | 10 | 10 |
| Z= No. of students taking up entrepreneurship | - | - | 1 |
| X + Y + Z = | 95 | 115 | 127 |
| Placement Index (P) = (((X + Y + Z)/FS) * 100) | 66.9 | 82.14 | 90.07 |
| Average placement index = (P_1 + P_2 + P_3)/3 | 79.70 | | |

**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. 4.6.1 should be the sum of the sanctioned intake (N) and the lateral entry including leftover seats (N2).

## PART C: Faculty Details in 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 CA

**Table No. C1A: Faculty details (2024-2025)**

| Sl. No. | Name of the Faculty | PAN No. | APAAR faculty ID*(if any) | Highest degree | University | Area of Specialization | Date of Joining in this Institution | Experience in years in current institute | Designation at Time Joining in this Institution | Present Designation | The date on which Designated as Professor/ | Nature of Association (Regular/ Contract/ Ad hoc) | If contractual mention Full time or (Part time or hourly based) | Currently Associated (Y/N) | Date of Leaving if any (In case Currently |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | Dr. L. Ashok Kumar | ABUPL3129J | 112131719324 | Ph.D | Anna University | Electrical Machines | 0`5.09.2024 | 0.5 | Professo r | Professor | 05.09.2024 | Regular | - | Y | - |
| 2. | Dr. S.Baskar | AANPB8106H | 566180418128 | Ph.D | Madurai Kamaraj | Power Systems | 01.12.1994 | 30 | Lecturer | Professor | 14.11.2005 | Regular | - | Y | - |
| 3. | Dr.M.Saravanan | AKKPS6635B | 832237675055 | Ph.D | Madurai Kamaraj | Power Systems | 02.01.1995 | 30 | Lecturer | Professor | 01.01.2008 | Regular | - | Y | - |
| 4. | Dr.P.Venkatesh | AAHPV4039R | 782038159305 | Ph.D | Madurai Kamaraj | Power Systems | 01.12.1994 | 29 | Lecturer | Professor | 25.12.2011 | Regular | - | Y | - |
| 5. | Dr.K.Selvi | ACHPS6518E | 705273059604 | Ph.D | Madurai Kamaraj | Power Systems | 02.07.1990 | 34 | Lecturer | Professor | 01.01.2009 | Regular | - | Y | - |
| 6. | Mr.S.Sivakumar | ABPPS1330R | 735901851991 | M.E | Madurai Kamaraj | Power Systems | 13.06.1990 | 34 | Lecturer | Associate Professor | 01.01.2006 | Regular | - | Y | - |
| 7. | Dr.V.Suresh kumar | ABPPS1333N | 233234272252 | Ph.D | Madurai Kamaraj | Power Systems | 02.06.1997 | 27 | Lecturer | Professor | 12.01.2014 | Regular | - | Y | - |
| 8. | Dr.V.Saravanan | ABPPS8304M | 914278778196 | Ph.D | Madurai Kamaraj | Power Systems | 10.06.1997 | 27 | Lecturer | Professor | 14.03.2015 | Regular | - | Y | - |
| 9. | Dr.S.Latha | AAWPL6837C | 579720354844 | Ph.D | Madurai Kamaraj | Power Systems | 01.10.1997 | 26 | Lecturer | Professor | 01.10.2013 | Regular | - | Y | - |
| 10. | Dr.C.K.Babulal | AHGPB5031P | 286374719944 | Ph.D | Madurai Kamaraj | Power Systems | 27.01.2000 | 24 | Lecturer | Professor | 02.04.2018 | Regular | - | Y | - |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11. | Dr.M.Geethanjali | ACYPG4722B | 921687923180 | Ph.D | Madurai Kamaraj | Power Systems | 06.12.1999 | 24 | Lecturer | Professor | 25.12.2014 | Regular | - | Y | - |
| 12. | Dr.N.Shanmugavadivoo | AQJPS0295 A | 815292863915 | Ph.D | Madurai Kamaraj | Power Systems | 10.12.1999 | 24 | Lecturer | Professor | 10.12.2015 | Regular | - | Y | - |
| 13. | Dr.L.JessiSahaya Shanthi | AFUPJ0678Q | 983270129881 | Ph.D | Anna University | Power Electronics &Drives | 20.10.2004 | 19 | Lecturer | Associate Professor | 20.10.2016 | Regular | - | Y | - |
| 14. | Dr. R.RajanPrakash | AEWPR0257E | 122196902670 | Ph.D | Anna University | High Voltage Engineering | 01.12.2004 | 18 | Lecturer | Associate Professor | 13.12.2017 | Regular | - | Y | - |
| 15. | Dr.S.Arocki a Edwin Xavier | AAAPX6458P | 334874965325 | Ph.D | Anna University | FACTS | 18.07.2005 | 18 | Lecturer | Associate Professor | 01.03.2022 | Regular | - | Y | - |
| 16. 6 | Dr.P.S. Manoharan | ALVPM4513A | 170931508551 | Ph.D | Anna University | Power Systems | 21.06.2006 | 17 | Lecturer | Professor | 01.03.2022 | Regular | - | Y | - |
| 17. | Dr.D.Kavitha | ATWPK8721B | 926125416350 | Ph.D | Anna University | Power Systems | 05.07.2007 | 18 | Lecturer | Associate Professor | 01.09.2023 | Regular | - | Y | - |
| 18. | Dr.S.Charles Raja | AINPC8673L | 761055551289 | Ph.D | Anna University | Power Systems Restructuring | 07.09.2007 | 18 | Lecturer | Associate Professor | 01.03.2022 | Regular | - | Y | - |
| 19. | Dr.D.Nelson Jayakumar | AFRPN5125R | 598566871515 | Ph.D | Anna University | Power System Optimization | 11.09.2007 | 18 | Lecturer | Assistant Professor | -- | Regular | - | Y | - |
| 20. | Dr.B.Ashok Kumar | AKAPA2911L | 827786263164 | Ph.D | Anna University | Instrumentation Systems | 25.08.2008 | 17 | Lecturer | Associate Professor | 01.09.2023 | Regular | - | Y | - |
| 21. | Dr.G.SivaSankar | BILPS1589Q | 535657750427 | Ph.D | Anna University | Power Systems | 02.09.2008 | 17 | Lecturer | Associate Professor | 01.09.2023 | Regular | - | Y | - |
| 22. | Dr.M.Meenakshi Devi | BKCPM2338C | 567206001398 | PhD | Anna University | Power System Protection | 01.08.2022 | 2 | Assistant Professor | Assistant Professor | - | Regular | - | Y | - |
| 23. | Dr.C.Balasundar | DQFPB6613A | 893851652595 | Ph. D | SASTRA Deemed University | Electric Vehicle | 10.08.2022 | 2 | Assistant Professor | Assistant Professor | -- | Regular | - | Y | - |
| 24. | Mrs.P.M.Devie | BMSPD8421K | 112131719324 | M.E. (Ph.D) | Anna University | Power Systems | 10.07.2023 | 1 | Assistant Professor | Assistant Professor | - | Regular | - | Y | - |

The list of faculty members for the academic year 2023–2024, along with their relevant details, is provided in Table C1B.

**Table No. C1B: Faculty details (2023-2024)**

| Sl. No. | Name of the Faculty | PAN No. | APAAR faculty ID*(if any) | Highest degree | University | Area of Specialization | Date of Joining in this Institution | Experience in years in current institute | Designation at Time Joining in this Institution | Present Designation | The date on which Designated as Professor/ | Nature of Association (Regular/ Contract/ Ad hoc) | If contractual mention Full time or (Part time or hourly based) | Currently Associated (Y/N) | Date of Leaving if any (In case Currently |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Dr. S.Baskar | AANPB8106H | 566180418128 | Ph.D | Madurai Kamaraj | Power Systems | 01.12.1994 | 29 | Lecturer | Professor | 14.11.2005 | Regular | - | Y | - |
| 2 | Dr.M.Saravanan | AKKPS6635B | 832237675055 | Ph.D | Madurai Kamaraj | Power Systems | 02.01.1995 | 29 | Lecturer | Professor | 01.01.2008 | Regular | - | Y | - |
| 3 | Dr.P.Venkatesh | AAHPV4039R | 782038159305 | Ph.D | Madurai Kamaraj | Power Systems | 01.12.1994 | 28 | Lecturer | Professor | 25.12.2011 | Regular | - | Y | - |
| 4 | Dr.K.Selvi | ACHPS6518E | 705273059604 | Ph.D | Madurai Kamaraj | Power Systems | 02.07.1990 | 33 | Lecturer | Professor | 01.01.2009 | Regular | - | Y | - |
| 5 | Mr.S.Sivakumar | ABPPS1330R | 735901851991 | M.E | Madurai Kamaraj | Power Systems | 13.06.1990 | 33 | Lecturer | Associate Professor | 01.01.2006 | Regular | - | Y | - |
| 6 | Dr.V.Suresh kumar | ABPPS1333N | 233234272252 | Ph.D | Madurai Kamaraj | Power Systems | 02.06.1997 | 26 | Lecturer | Professor | 12.01.2014 | Regular | - | Y | - |
| 7 | Dr.V.Saravanan | ABPPS8304M | 914278778196 | Ph.D | Madurai Kamaraj | Power Systems | 10.06.1997 | 26 | Lecturer | Professor | 14.03.2015 | Regular | - | Y | - |
| 8 | Dr.S.Latha | AAWPL6837C | 579720354844 | Ph.D | Madurai Kamaraj | Power Systems | 01.10.1997 | 25 | Lecturer | Professor | 01.10.2013 | Regular | - | Y | - |
| 9 | Dr.C.K.Babulal | AHGPB5031P | 286374719944 | Ph.D | Madurai Kamaraj | Power Systems | 27.01.2000 | 23 | Lecturer | Professor | 02.04.2018 | Regular | - | Y | - |
| 10 | Dr.M.Geethanjali | ACYPG4722B | 921687923180 | Ph.D | Madurai Kamaraj | Power Systems | 06.12.1999 | 23 | Lecturer | Professor | 25.12.2014 | Regular | - | Y | - |
| 11 | Dr.N.Shanmugavadivoo | AQJPS 0295 A | 815292863915 | Ph.D | Madurai Kamaraj | Power Systems | 10.12.1999 | 23 | Lecturer | Professor | 10.12.2015 | Regular | - | Y | - |
| 12 | Dr.L.Jessi Sahaya Shanthi | AFUPJ0678Q | 983270129881 | Ph.D | Anna University | Power Electronics &Drives | 20.10.2004 | 18 | Lecturer | Associate Professor | 20.10.2016 | Regular | - | Y | - |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13 | Dr. R.RajanPrakash | AEWPR0257E | 122196902670 | Ph.D | Anna University | High Voltage Engineering | 01.12.2004 | 17 | Lecturer | Associate Professor | 13.12.2017 | Regular | - | Y | - |
| 14 | Dr.S.Arockia Edwin Xavier | AAAPX6458P | 334874965325 | Ph.D | Anna University | FACTS | 18.07.2005 | 17 | Lecturer | Associate Professor | 01.03.2022 | Regular | - | Y | - |
| 15 | Dr.P.S.Manoharan | ALVPM4513A | 170931508551 | Ph.D | Anna University | Power Systems | 21.06.2006 | 16 | Lecturer | Professor | 01.03.2022 | Regular | - | Y | - |
| 16 | Dr.D.Kavitha | ATWPK8721B | 926125416350 | Ph.D | Anna University | Power Systems | 05.07.2007 | 17 | Lecturer | Associate Professor | 01.09.2023 | Regular | - | Y | - |
| 17 | Dr.S.Charles Raja | AINPC8673L | 761055551289 | Ph.D | Anna University | Power Systems Restructuring | 07.09.2007 | 17 | Lecturer | Associate Professor | 01.03.2022 | Regular | - | Y | - |
| 18 | Dr.D.Nelson Jayakumar | AFRPN5125R | 598566871515 | Ph.D | Anna University | Power System Optimization | 11.09.2007 | 17 | Lecturer | Assistant Professor | -- | Regular | - | Y | - |
| 19 | Dr.B.Ashok Kumar | AKAPA2911L | 827786263164 | Ph.D | Anna University | Instrumentation Systems | 25.08.2008 | 16 | Lecturer | Associate Professor | 01.09.2023 | Regular | - | Y | - |
| 20 | Dr.G.SivaSankar | BILPS1589Q | 535657750427 | Ph.D | Anna University | Power Systems | 02.09.2008 | 16 | Lecturer | Associate Professor | 01.09.2023 | Regular | - | Y | - |
| 21 | Dr.M.Meenakshi Devi | BKCPM2338C | 567206001398 | PhD | Anna University | Power Systems Protection | 01.08.2022 | 2 | Assistant Professor | Assistant Professor | - | Regular | - | Y | - |
| 22 | Dr.C.Balasundar | DQFPB6613A | 893851652595 | Ph.D | SASTRA Deemed University | Electric Vehicle | 10.08.2022 | 1 | Assistant Professor | Assistant Professor | -- | Regular | - | Y | - |
| 23 | Mrs.P.M.Devie | BMSPD8421K | 112131719324 | Ph.D | Anna University | Power Systems | 10.07.2023 | 0.5 | Assistant Professor | Assistant Professor | - | Regular | - | Y | - |

The list of faculty members for the academic year 2022–2023, along with their relevant details, is provided in Table C1C.

**Table No. C1C: Faculty details (2022-2023)**

| Sl. No. | Name of the Faculty | PAN No. | APAAR faculty ID*(if any) | Highest degree | University | Area of Specialization | Date of Joining in this Institution | Experience in years in current institute | Designation at Time Joining in this Institution | Present Designation | The date on which Designated as Professor/ | Nature of Association (Regular/ Contract/ Ad hoc) | If contractual mention Full time or (Part time or hourly based) | Currently Associated (Y/N) | Date of Leaving if any (In case Currently |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. | Dr. S.Baskar | AANPB8106H | 566180418128 | Ph.D | Madurai Kamaraj | Power Systems | 01.12.1994 | 28 | Lecturer | Professor | 14.11.2005 | Regular | - | Y | - |
| 2. | Dr. M. Saravanan | AKKPS6635B | 832237675055 | Ph.D | Madurai Kamaraj | Power Systems | 02.01.1995 | 28 | Lecturer | Professor | 01.01.2008 | Regular | - | Y | - |
| 3. | Dr. P. Venkatesh | AAHPV4039R | 782038159305 | Ph.D | Madurai Kamaraj | Power Systems | 01.12.1994 | 27 | Lecturer | Professor | 25.12.2011 | Regular | - | Y | - |
| 4. | Dr.K.Selvi | ACHPS6518E | 705273059604 | Ph.D | Madurai Kamaraj | Power Systems | 02.07.1990 | 32 | Lecturer | Professor | 01.01.2009 | Regular | - | Y | - |
| 5. | Mr. S. Sivakumar | ABPPS1330R | 735901851991 | M.E | Madurai Kamaraj | Power Systems | 13.06.1990 | 32 | Lecturer | Associate Professor | 01.01.2006 | Regular | - | Y | - |
| 6. | Dr. V. Suresh kumar | ABPPS1333N | 233234272252 | Ph.D | Madurai Kamaraj | Power Systems | 02.06.1997 | 25 | Lecturer | Professor | 12.01.2014 | Regular | - | Y | - |
| 7. | Dr. V. Saravanan | ABPPS8304M | 914278778196 | Ph.D | Madurai Kamaraj | Power Systems | 10.06.1997 | 25 | Lecturer | Professor | 14.03.2015 | Regular | - | Y | - |
| 8. | Dr. S. Latha | AAWPL6837C | 579720354844 | Ph.D | Madurai Kamaraj | Power Systems | 01.10.1997 | 24 | Lecturer | Professor | 01.10.2013 | Regular | - | Y | - |
| 9. | Dr .C. K. Babulal | AHGPB5031P | 286374719944 | Ph.D | Madurai Kamaraj | Power Systems | 27.01.2000 | 22 | Lecturer | Professor | 02.04.2018 | Regular | - | Y | - |
| 10. | Dr. M. Geethanjali | ACYPG4722B | 921687923180 | Ph.D | Madurai Kamaraj | Power Systems | 06.12.1999 | 22 | Lecturer | Professor | 25.12.2014 | Regular | - | Y | - |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11. | Dr. N. Shanmugavadivoo | AQJPS0295A | 815292863915 | Ph.D | Madurai Kamaraj | Power Systems | 10.12.1999 | 22 | Lecturer | Professor | 10.12.2015 | Regular | - | Y | - |
| 12. | Dr.L.Jessi Sahaya Shanthi | AFUPJ0678Q | 983270129881 | Ph.D | Anna University | Power Electronics &Drives | 20.10.2004 | 17 | Lecturer | Associate Professor | 20.10.2016 | Regular | - | Y | - |
| 13. | Dr. R .Rajan Prakash | AEWPR0257E | 122196902670 | Ph.D | Anna University | High Voltage Engineering | 01.12.2004 | 16 | Lecturer | Associate Professor | 13.12.2017 | Regular | - | Y | - |
| 14. | Dr.S.Arockia Edwin Xavier | AAAPX6458P | 334874965325 | Ph.D | Anna University | FACTS | 18.07.2005 | 16 | Lecturer | Associate Professor | 01.03.2022 | Regular | - | Y | - |
| 15. | Dr .P. S .Manoharan | ALVPM4513A | 170931508551 | Ph.D | Anna University | Power Systems | 21.06.2006 | 15 | Lecturer | Professor | 01.03.2022 | Regular | - | Y | - |
| 16. | Dr. R. Helen | AFGPH2128 | 836901666610 | Ph.D | Anna University | Image Processing | 25.07.2006 | 16 | Lecturer | Assistant Professor | -- | Regular | - | N | 01/05/23 |
| 17. | Dr.D. Kavitha | ATWPK8721B | 926125416350 | Ph.D | Anna University | Power Systems | 05.07.2007 | 16 | Lecturer | Assistant Professor | 01.09.2023 | Regular | - | Y | - |
| 18. | Dr.S.Charles Raja | AINPC8673L | 761055551289 | Ph.D | Anna University | Power Systems Restructuring | 07.09.2007 | 16 | Lecturer | Associate Professor | 01.03.2022 | Regular | - | Y | - |
| 19. | Dr.D.Nelson Jayakumar | AFRPN5125R | 598566871515 | Ph.D | Anna University | Power System Optimization | 11.09.2007 | 16 | Lecturer | Assistant Professor | -- | Regular | - | Y | - |
| 20. | Dr.B.Ashok Kumar | AKAPA2911L | 827786263164 | Ph.D | Anna University | Instrumentation Systems | 25.08.2008 | 15 | Lecturer | Assistant Professor | 01.09.2023 | Regular | - | Y | - |
| 21. | Dr.G. SivaSankar | BILPS1589Q | 535657750427 | Ph.D | Anna University | Power Systems | 02.09.2008 | 15 | Lecturer | Assistant Professor | 01.09.2023 | Regular | - | Y | - |
| 22. | Dr.M. Meenakshi Devi | BKCPM2338 C | 567206001398 | PhD | Anna University | Power Systems Protection | 01.08.2022 | 0.5 | Assistant Professor | Assistant Professor | - | Regular | - | Y | - |
| 23. | Dr.C. Balasundar | DQFPB6613A | 893851652595 | Ph.D | SASTRA Deemed University | Electric Vehicle | 10.08.2022 | 0.5 | Assistant Professor | Assistant Professor | -- | Regular | - | Y | - |

**Table No.C2:** Faculty details of Allied Departments for the past 3 years including CAY - Not Applicable

| S.N. | Name of the Faculty | PAN No. | APAAR faculty ID*(if any) | Highest degree | University | Area of Specialization | Date of Joining in this Institution | | Experience in years in current institute | Designation at Time Joining in this Institution | Present Designation | The date on which Designated as Professor/ Associate Professor if any | Nature of Association (Regular/ Contract/ Ad hoc) | If contractual mention Full time or(Part time or hourly based) | Currently Associated (Y/N) | Date of Leaving if any (In case Currently Associated is " No" ) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | | | | | |
| .. | | | | | | | | | | | | | | | | |

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-yearcourses)).

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

| Year | CAY | CAYm1 | CAYm2 |
|---|---|---|---|
| UG1. B | 132 | 132 | 132 |
| UG1. C | 132 | 132 | 132 |
| UG1. D | 132 | 132 | 132 |
| UG1 | 396 | 396 | 396 |
| | | | |
| PG1. A | | 18 | 25 |
| PG1. B | 18 | 25 | 25 |
| PG1 | 18 | 43 | 50 |
| DS=Total no. of students in all UG and PG programs in the Department | 414 | 439 | 446 |
| F=Total no. of faculty members in the Department (DF) and allied Departments (AF) | 23 | 23 | 23 |
| FF=The faculty members in F who have a 100% teaching load in the first-year courses | 0 | 0 | 0 |
| **Student Faculty Ratio (SFR)=S/(F-FF)** | **18** | **19.09** | **19.39** |
| **Average SFR for 3 years** | **18.83** | | |

**Note**: Programs such as MCA, BCA, and other non-engineering programs running in the Department or allied Departments need to have sufficient faculty members to support those programs. These faculty members and students should not be included in Table No. 5.1.2.

**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/UGCnorms.
  - Y=No. of faculty members with M. Tech. or ME degree or equivalent as perAICTE/ 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 5.1 of SAR; (RF=S/20).

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

| Year | X | Y | RF | FQI= 2.5 * [(10X +4Y)/RF] |
|---|---|---|---|---|
| **CAY** | 21 | 2 | 20.7 | 26.32 |
| **CAYm1** | 21 | 2 | 21.95 | 24.83 |
| **CAYm2** | 23 | 1 | 22.3 | 26.23 |
| | | | **Average Assessment** | **25.79** |

**C4. Faculty Cadre Proportion**

- Faculty Cadre Proportion is 1(RF1): 2(RF2): 6(RF3)
- RF1= No. of Professors required = 1/9 * No. of Faculty required to comply with20:1 Student-Faculty ratio based on no. of students (S) as per section 5.1 of SAR.
  - RF2= No. of Associate Professors required = 2/9 * No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per section 5.1 of SAR.
  - RF3= No. of Assistant Professors required = 6/9 * No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per section 5.1 of SAR.
- 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** | 2.30 | 11 | 4.6 | 8 | 13.80 | 4 |
| **CAYm1** | 2.44 | 11 | 4.88 | 8 | 14.64 | 4 |
| **CAYm2** | 2.48 | 11 | 4.96 | 5 | 14.87 | 7 |
| **Average Numbers** | **RF1= 2.41** | **AF1= 11** | **RF2= 4.81** | **AF2= 7** | **RF3= 14.43** | **AF3= 5** |

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

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

| Sl. No.. | Name of the Person | Designation & Organization | Name of the Course | No. of hours handled |
|---|---|---|---|---|
| **CAYm1** | | | | |
| **1** | Er..R.Ramesh | Design Manager, Microchip,Chennai | 18EE1G0 – ASIC design with UDSM nodes | 12 |
| **Total no. of hours:** | | | | 12 |
| **CAYm2** | | | | |
| **1** | Er. A. Karthikrajan | Director - Operations R S P Control Projects Pvt. Ltd, Chennai | 18EE1F0 Industrial Drives and Automation | 12 |
| **Total no. of hours:** | | | | 12 |
| **Sl. No..** | **Name of the Person** | **Designation & Organization** | **Name of the Course** | **No. of hours handled** |
| **CAYm3** | | | | |
| **1** | Mr.R.Ramesh (Adjunct Faculty) | Design Manager, Microchip, Chennai | 18EE340- Digital Systems | 20 |
| **2** | Mr.R.Ramesh | Design Manager, Microchip, Chennai | 18EEPH0 – VLSI Design | 13 |
| **3** | Mr.R.Ramesh | Design Manager, Microchip, Chennai | 18EE1G0 – ASIC design with UDSM nodes | 12 |
| **4** | Mr.Rajvikram Madurai Elavarasan (Adjunct Faculty) | Subject Matter Expert at Research and Development Division (Power & Energy), Nestlives Pvt Ltd, Chennai 600091, India. | 18PGAA0 – Professional Authoring | 13 |
| **5** | Ramakrishnan GK | General Manager, Energy Operations, Wartsila India Pvt Ltd | 18EE2H0 Energy Storage Systems | 20 |
| **Total no. of hours:** | | | | **78** |

## C6. Academic Research

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

| S.N. | Item | CAYm1 | CAYm2 | CAYm3 |
|---|---|---|---|---|
| 1 | No. of peer reviewed journal papers published | 38 | 26 | 37 |
| 2 | No. of peer reviewed conference papers published | 53 | 69 | 27 |
| 3 | No. of books/book chapters published | 07 | 06 | 03 |

## C7. Sponsored Research Project

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

| Sl. No. | 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 (Rs. Lacs) |
|---|---|---|---|---|---|---|---|
| **CAYm2 - 2022-23** | | | | | | | |
| **1** | Dr.M.Meenakshi Devi | Nil | EEE | Digitalization of Bus tracking and Fare collection system | TamilNadu State Council for Science and Technology | 6 months | 0.075 |
| **2** | Dr.S.Baskar, Dr.K.ChockalingamDr.P.Venkatesh, Dr.A.Valan Arasu, Dr.K.Srithar, Dr.S.Charles Raja | Nil | EEE & MECHANICAL | Fund for Improvement of S&T Infrastructure Scheme | Department of Science and Technology - FIST Scheme | 5 Years | 57.00 |
| **3** | Dr.K.Selvi & Ms.RM.Meenakshi | Nil | EEE | Design of a deep learning representation of controllers for a grid interactive microgrid | Department of Science and Technology -WoS-A Scheme | 3 Years | 31.52 |
| | | | | | | **Amount received (Rs.)** | **88.595** |
| **CAYm3 - 2021-22** | | | | | | | |
| **1** | Dr.B.Ashok kumar | Nil | | Energy management system in residence using smart controller | TamilNadu State Council for Science and Technology | 6 months | 0.075 |
| **2** | Dr. S.Baskar | Nil | | Modernization of Electrical Machines and Drives Lab | AICTE – MODROBS | 3 Years | 11.00 |
| | | | | | | **Amount received (Rs.)** | **11.075** |
| | | | | | | **Total Amount (Lacs) Received for the Past 3 Years** | **99.67** |

## 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 - 2023-24** | | | | | | | |
| 1 | Dr.V.Saravanan | Dr.P.S.Manoharan | EEE | LED Light Fitting | Mahaveer Electro Controls/Sholavanthan Town Panchayat | 05/03/2024 | 0.01416 |
| 2 | Dr.V.Saravanan | Dr.P.S.Manoharan | EEE | Cable Quality | Thiagarajar Mills P Limited, Madurai | 20/02/2024 to 18/03/2024 | 0.02360 |
| 3 | Dr.V.Suresh Kumar, | Dr.V.Saravanan, Dr.G.Sivasankar | EEE | Power Quality audit | Hannah Joseph Hospital Ltd | 31.07.2023 & 19.02.2024 | 0.59000 |
| 4 | Dr.V.Saravanan | Dr.P.S.Manoharan | EEE | Inspection, Verification & Conditional Assessment in STP, Lawspet, Puduchery | Public Works Department, Puducherry | 15.02.2024 | 0.88500 |
| | | | | | **Amount received in Lakhs (Rs.)** | | **1.51276** |
| **CAYm2 - 2022-23** | | | | | | | |
| 1 | Dr.V.Saravanan | Dr.G.Sivasankar, Dr.B.Ashok Kumar | EEE | Lithium Ion Battery Charging and Discharging Characteristics | Royal Annanmar, Namakkal | 28/06/2023 to 12.07.2023 | 0.05900 |
| 2 | Dr.V.Saravanan | Dr.G.Sivasankar, Dr.B.Ashok Kumar | EEE | Detailed Energy Audit & Green Audit | St. Mary College, Tuticorin | 21/06/2023 | 0.70800 |
| 3 | Dr.V.Saravanan | Dr.P.S.Manoharan | EEE | Performance estimation of LED Light Fittings | A.N.Kannan, Madurai | 17/06/2023 | 0.01180 |
| 4 | Dr.V.Sarava | Dr.P.S.Man | EEE | Lighting | Smart Watt Energy | 12/06/2023 | 0.0590 |

| 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) |
|---|---|---|---|---|---|---|---|
| | nan | oharan | | Level Assessment | Solutions, Madurai | | 0 |
| 5 | Dr.P.S.Manoharan | Dr.V.Saravanan | EEE | Inspection, Verification & Conditional Assessment in STP, Lawspet, Puduchery | Public Works Department, Puducherry | 26/05/2023 | 0.88500 |
| 6 | Dr.V.Saravanan | Dr.P.S.Manoharan | EEE | Performance estimation of LED Light Fittings | Global Trading Corporation, Madurai | 21/04/2023 to 25/04/2023 | 0.01180 |
| 7 | Dr.V.Saravanan | Dr.P.S.Manoharan | EEE | Performance estimation of Electric Vehicle | e Royce Motors india Private Limited, Coimbatore | 20/03/2023 to254.03.2023 | 0.11800 |
| 8 | Dr.V.Saravanan | Dr.P.S.Manoharan | EEE | Performance estimation of LED Light Fittings | Global Trading Corporation, Madurai | 9/3/2023 | 0.01180 |
| 9 | Dr.P.S.Manoharan | Dr.V.Saravanan | EEE | Inspection, Verification & Conditional Assessment in STP, Dubriyapet, Puduchery | Public Works Department, Puducherry | 27/01/2023 | 0.88500 |
| | | | | | | **Amount received in Lakhs (Rs.)** | **2.7494** |
| **CAYm3 - 2021-22** | | | | | | | |
| 1 | Dr.V.Saravanan | Dr.P.S.Manoharan | EEE | 150HP Vertical Turbine Pump & Prime mover Installation Verification | Municpal Commissioner, Cumbum | 7/12/2022 to 13/12/2022 | 0.11800 |
| 2. | Dr.P.S.Manoharan | Dr.V.Saravanan | EEE | Electrical performanc | Maruthi trading Corporation | 21.11.2022 | 0.04720 |

| 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) |
|---|---|---|---|---|---|---|---|
| | | | | e estimation | | | |
| 3 | Dr.P.S.Manoharan | Dr.V.Saravanan | EEE | Inspection, Verification & Conditional Assessment in STP, Dubriyapet, Puduchery | Public Works Department, Puducherry | 23/06/2022 | 0.88500 |
| 4 | Dr.V.Saravanan | Dr.P.S.Manoharan | EEE | UG Cable Parameter Measurment | N.Pandiyaraj, Virudhunagar | 7/7/2022 to 19/7/2022 | 0.01180 |
| 5 | Dr.D.Nelson Jayakumar | Dr.V.Saravanan & Dr.P.S.Manoharan | EEE | Detailed Energy Audit | Tata Bluescope Steel Private Limited, Chennai | 12/05/2022 | 0.29500 |
| 6 | Dr. G. Sivasankar | Not Available | EEE | Boot light switch and cabin light testing | TVS Sensing Solution Pvt Ltd, Madurai | 4.5.2022 | 0.02596 |
| 7 | Dr. G. Sivasankar | Not Available | EEE | Battery charging converter | TVS Sensing Solution Pvt Ltd, Madurai | 26/4/.2022 | 0.02596 |
| 8 | Dr.D.Nelson Jayakumar | Dr.V.Saravanan & Dr.P.S.Manoharan | EEE | Detailed Energy Audit | P.A.Seetharaman & Co, Madurai | 05/04/2022 | 0.23600 |
| 9 | Dr.V.Saravanan | Dr.P.S.Manoharan | EEE | Performance estimation of LED Light Fittings | L.Rajendran, Cumbum | 25/03/2022 | 0.01770 |
| 10 | Dr.V.Saravanan | Dr.P.S.Manoharan | EEE | Performance estimation of LED Light Fittings | J.K.Enterprises, Madurai | 16/2/2022 to 23/2/2022 | 0.01180 |
| 11 | Dr.V.Suresh Kumar | Dr.P.S.Manoharan | EEE | Power Quality Analysis | HiTech Arai Private Limited, Kappalur,Madurai | 03/02/2022, | 0.29500 |
| 12 | Dr.V.Saravanan | Dr.P.S.Manoharan | EEE | Performance estimation of Light Accessories | Global Trading Corporation, Madurai | 16/2/2022 to 23/2/2022 | 0.00590 |

| 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) |
|---|---|---|---|---|---|---|---|
| 13 | Dr.V.Saravanan | Dr.P.S.Manoharan | EEE | Performance estimation of LED Light Fittings | J.K.Enterprises, Madurai | 16/12/2021 to 21/12/2021 | 0.01180 |
| 14 | Dr.V.Saravanan | Dr.P.S.Manoharan | EEE | Performance estimation of LED Light Fittings | Global Trading Corporation, Madurai | 25/10/2021 to 26/10/2021 | 0.01180 |
| 15 | Dr.V.Saravanan | Dr.P.S.Manoharan | EEE | Performance estimation of LED Light Fittings | J.K.Enterprises, Madurai | 23/10/2021 to 26/10/2021 | 0.01770 |
| 16 | Dr.V.Saravanan | Dr.P.S.Manoharan | EEE | Dimension & Conductor Resistance Measurment for UG Cable | Assistant Engineer, TNPHC Led, Madurai Division | 28/09/2021 to 5/10/2021 | 0.00944 |
| 17 | Dr.V.Saravanan | Dr.P.S.Manoharan | EEE | Performance estimation of LED Light Fittings | J.K.Enterprises, Madurai | 10/8/2021 to 12/8//2021 | 0.07670 |
| 18 | Dr.V.Saravanan | Dr.P.S.Manoharan | EEE | Performance estimation of LED Light Fittings | Municipal Commissioner, Bodinayakanur | 28/04/2021 to 30.04.2021 | 0.17700 |
| | | | | | | **Amount received in Lakhs (Rs.)** | 2.27976 |
| | | | | | | **Total Amount (Lacs) Received for the Past 3 Years** | **6.53** |

## 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 |
|---|---|---|---|---|---|---|
| **CAYm1 - 2023-24** | | | | | | |
| 1. | Dr.S.Charles Raja | IoT Based Application Dashboards for | 2 Years | 1.00 | 0.99 | Product Development, Paper Publications to enhance students' skill towards participating in various national and international events like Hackathon |
| 2. | Dr. B. Ashok Kumar Dr.G.Sivasankar | Advanced all Terrain Vehicle - Model Design and fabrication | 1 year | 0.8 | 0.6 | Fabricated the vehicle and participated in the contest |
| | | | | **Amount received (Rs.)** | **1.59** | |
| **CAYm2 - 2022-23** | | | | | | |
| 1 | Dr.R.Rajan Prakash | Design and Development of Drones | 2 Years | 0.50 | 0.83 | Working model development Students' skill development |
| 2 | Dr.P.S.Manoharan | Development of Electric Drive Train | 1 Year | 0.50 | 0.49 | Paper Publication Working model development Students' skill development |
| 3 | Dr.G.Siva Sankar | Electric Vehicle Setup with BMS Trainer | 2 Years | 1.50 | 1.32 | Paper Publication Working model development Students' skill development |
| 4 | Dr. B. Ashok Kumar Dr.G.Sivasankar | Advanced all-Terrain Vehicle - Design and fabrication | 1 year | 0.5 | 0.4 | Fabricated the vehicle and participated in the contest |
| | | | | **Amount received (Rs.)** | **3.04** | |
| **CAYm3 - 2021-22** | | | | | | |
| 1 | Dr.B.Ashok Kumar | Experimental analysis of PQ parameter measurement | 2 Years | 1.2 | 1.08 | Product Development Students' skill development |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | and its estimation with AI application | | | | |
| 2 | Dr.S.Arockia Edwin Xavier | Speed control of Various Types of EV motors | 2 Years | 1.5 | 1.48 | Product Development Students' skill development |
| **Amount received (Rs.)** | | | | | **2.56** | |
| **Total Amount (Lacs) Received for the Past 3 Years** | | | | | **7.19** | |

## PART-D: Laboratory Infrastructure in 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 Important equipment | Weekly utilization status (Hours) | Technical Manpower support | | |
|---|---|---|---|---|---|---|---|
| | | | | | Name of the technical staff | Designation | Qualification |
| 1 | Applied Electronics Laboratory | 3 | Digital Trainer kit,<br>Computers, RPS, CRO/DSO, AFO, IC Tester Kit,<br>NI My DAQ software,<br>Solar Energy Experiment system,<br>Solar PV Wind Hybrid system with DC micro Grid,<br>DigSilent Power factory software | 10 | K.Raji | Lab Technician | Diploma (EEE)<br>B.E. (EEE) |
| 2 | Computer Laboratory | 1 | HP Proliant ML110G6-Windows 2008 Server Client -40 nos.<br>5KVA UPS -2,3KVA UPS -1, HP 1020 Laser Printer-1 | 18 | M. Ramdoss | Artisan Grade -II | Diploma (EEE) |
| 3 | Control System Laboratory | 3 | Water Level control trainer,<br>Conveyer belt sorting interface kit,<br>PLC Trainers,<br>PC based DAQ, LVDT, Thermocouples,<br>LAB View and MATLAB Software<br>Pressure Control Trainer, PC<br>Temperature control Trainer,<br>Level and pressure process control trainer,<br>PLC Trainers,<br>PC based DAQ, Cascade valve trainer,<br>MATLAB software | 24 | E.Paraman | Artisan Grade II | Diploma (EEE) |
| 4 | Electrical Machines Laboratory | 3 | DC Motor and DC Shunt/ Compound Generators Set – 2Nos.<br>DC Shunt / Series Motor with Braking arrangements – 3Nos. | 12 | M.Baskaran<br><br>M.Raghu | Lab technician<br><br>Lab | Diploma (EEE)<br><br>B.E.(EEE) |

| S. | Name of the | No. of | Name of the Important equipment | Weekly | Technical Manpower support | | |
|---|---|---|---|---|---|---|---|
| | | | DC Series Generator set -1Nos.<br>DC Cascading Drive set – 1No.<br>Three Phase Slipring Induction motor – 1No.<br>Three Phase Squirrel Cage Induction Motor with VFD Drive – 1Nos.<br>Energy Efficient Three Phase Induction Motor -1No.<br>Std. Three Phase Induction Motor-1No.<br>Three Phase Salient Pole Alternator set -1No<br>Three Phase Cylindrical Pole Alternator set – 3Nos.<br>Three Phase Synchronous Motor Set -1No.<br>Digital Clamp-on Power meter,<br>Single Phase Induction Motor with Brake drum arrangements – 2Nos.<br>DC Rectifier -200A 230V – 1No.<br>Single Phase 1/2/3KVA Transformer – 10Nos.<br>Calibration meters,<br>Siemens DC Drives Trainer kit -1No<br>KRYKARD Power meter – 3Nos.<br>Vibration Meter – 1Nos. | | | technician | |
| 5 | Embedded Systems Laboratory | 2 | 8051 Microcontroller Trainer kits-20, Embedded C compiler, Flash Magic software installed Computers-24, DSOs-3, Embedded Cortex M4 Microcontroller Trainer Kits with Development Boards-10, TM4C123 Microcontroller Starter Kits for Embedded lab with Launch Pad and their accessories-10, Arduino kit-16, ESP-32 /ESP-8266, Rashberrypi kit-6, Matlab | 12 | P.Manoharan<br><br>M.Gopi | Artician Grade I<br><br>Lab Technician | Diploma (EEE) B.E. (EEE)<br><br>Diploma (EEE) B.E. (EEE) |
| 6 | Power Electronics Laboratory | 3 | HIOKI Power Quality Analyzer,<br>Siemens micro-master/vector drive,<br>Fluke power scope (200mhz, 2gs/s), | 10 | S.Saravanan | Lab Instructor | ITI |

| S. | Name of the | No. of | Name of the Important equipment | Weekly | Technical Manpower support | | |
|---|---|---|---|---|---|---|---|
| | | | HAMEG storage oscilloscope, (150mhz, 200ms/s),<br>TMS 320C50 DSP controller<br>TMS 320F2407 DSP trainer kit,<br>TMS 320F2407 DSP trainer kit,<br>3 phase IGBT based intelligent power modules,<br>3 phase induction motor DC generator set,<br>DC motor –DC generator set,<br>FACTS controllers | | | | |

**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 | Applied Electronics Laboratory | Fire Extinguisher -2, First Aid Kit Box-1, Safety mat in the Electrical Panel |
| 2 | Computer Laboratory | Fire Extinguisher, First Aid Box |
| 3 | Control System Laboratory | Fuse in each work table, Fire Extinguisher,<br>Circuit breakers, First Aid Box |
| 4 | Electrical Machines Laboratory | Earth Leakage Circuit Breakers, Sand Bucket,<br>Fire Extinguisher, First aid kit, Floor rubber mat, Gloves, Wearing shoes and other safety instructions displayed in notice,<br>Do's and Don'ts during Electric Shock |
| 5 | Embedded Systems Laboratory | Fire Extinguisher, First Aid Box |
| 6 | Power Electronics Laboratory | Fire Extinguisher, First Aid Box |

| S.N | Name of the Laboratory | Safety measures |
|---|---|---|
| 7 | Electric Vehicle Laboratory | Fire Extinguisher, First Aid Box |
| 8 | Automation Lab | Fire Extinguisher, First Aid Box |
| 9 | Project Laboratory & Skill Development Laboratory | Fire Extinguisher, First Aid Box |

**D3. Project Laboratory/Research Laboratory /Centre of Excellence**

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

| S.No. | Name of Laboratory |
|---|---|
| 1 | Project Laboratory |
| 2 | Centre of Excellence in Electric Vehicle Testing |

The Electrical and Electronics Engineering Project Laboratory is dedicated to undergraduate students. The objective of Project Laboratory is to facilitate, support and provide facilities required for doing project works in this laboratory. It provides the opportunity for the students to have hands-on experience with the state-of-the-art prototype and product development environment. Group of students can pool their knowledge and solve a specific design problem by designing a prototype model which can be fully tested and documented using the facilities available in the laboratory. A technical supporting staff (M. Ramdoss with an experience of 16 years) is available in the laboratory who assists the students in developing the prototype models. This laboratory is functional during regular working hours and also beyond working hours up to 6.30 P.M. This laboratory is not utilized for doing regular laboratory course experiments.

**Capabilities of the project laboratory:**

The laboratory has 15 dedicated computers installed with necessary simulation software, oscilloscopes, function generators, multiple power supplies, and digital multimeters. In some cases, specialized equipment such as power quality analyzer, spectrum analyzer or digital data analyzer will be made available based on student needs. This lab has a soldering facility, basic electronic components, connectors and wiring accessories. Tools, specific components and test equipment are also purchased by the student's team prior to starting as well as while doing the project in a phased manner. More advanced or specific engineering application software tools can be installed in the computers by the student teams, as required. The students can model and simulate any circuits/systems using the simulation software available in the laboratory. Fabrication of hardware modules/circuits/robots can be done in the project laboratory which can be then tested in the same laboratory itself or by taking them to the respective laboratories if needed.

**Major Equipment Available:**

| S. No. | Name of the Equipment |
|---|---|
| 1. | Microcontroller Development Kits-PIC, AVR, ARDUINO, Raspberry –PI |
| 2. | DSP Kits |
| 3. | ARDUINO Shields |
| 4. | Universal Programmer, PIC Programmer, AVR Programmer |
| 5. | PCB machine, Bread boards, Soldering station |
| 6. | Function Generators |
| 7. | Digital Storage Oscilloscopes(DSO) |
| 8. | Power Quality Analyzer |
| 9. | Spectrum Analyzer |
| 10. | FPGA development kits |

| S. No. | Name of the Equipment |
|---|---|
| 11. | Computers-15 Nos |
| 12. | AC & DC Motors |
| 13. | Sensors |
| 14. | Current Transformers |
| 15. | Electronic Devices (DIODE,BJT, MOSFET, IGBT, Thyristors, TRIAC, DIAC ,etc.) |
| 16. | Heat sinks |
| 17. | Intelligent Power Modules(IPM) |

| S.N | Name of Laboratory | Details | Purpose for creating facility | Utilization | Relevance to POs/PSOs |
|---|---|---|---|---|---|
| 1 | Project Laboratory | • 11th Gen Intel I core I i5 11500 CPU @ 2.70GHz – 2nos<br>• HP Intel core I i5 – 8500 CPU @ 3.00GHz – 5nos<br>• HP Intel core I i5 – 6500 CPU @ 3.20GHz – 2nos<br>• HP Compaq 6000 Pro Intel 2 Due E6500 CPU @ 3.20 GHz – 3nos<br>• Raspberry PI 3<br>• Arduino UNO<br>• Arduino MEGA<br>• Soldering Iron Set<br>• PCB Etching Machine<br>• PCB Drilling Machine | For UG students Project works and for Research scholars | 80% | PO2, PO5 PO9, PO11<br><br>PSO1 |

| S.N | Name of Laboratory | Details | Purpose for creating facility | Utilization | Relevance to POs/PSOs |
|---|---|---|---|---|---|
| | | • PCB Shearing Machine<br>• Function Generators<br>• Digital Storage Oscilloscope<br>• Digital Multi meter | | | |
| 2 | Electric Vehicle Testing Centre | • Battery Simulator - Charge / Discharge Controller<br>• Tektronix Make Programmable DC Power Supply<br>• Programmable AC Power Source<br>• 500V Electrical Safety Compliance Analyzer<br>• Tektronix Make Mixed Domain Oscilloscope<br>• Spectrum Analyzer<br>• 4-Channel 4425 Standard kit Oscilloscope Pico | • Drive cycle test<br>• Dynamic Stress Test<br>• Life cycle test<br>• Electric equipment testing<br>• DC equipment withstand test<br>• PQ/Harmonic Study<br>• Motor Vibration/ performance Analysis<br>• High Voltage withstand Test (AC&DC) Insulation Resistance Test<br>• Analysis of power quality, switching loss, harmonics THD analysis for different, Voltage/current ripple, modulation, and safe operating area measurements<br>• Noise figure measurement, Phase noise measurements<br>• Electromagnetic interference and electromagnetic compatibility measurements. Power and frequency measurement<br>• Harmonic analysis for different non-linear loads Timing analysis, Digital system design and characterization IC package characterization, | 50% | PO2, PO5 PO9, PO11<br><br>PSO1 |

**Software Available:**

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| S. No. | Name of the Software | Purpose | Purchased / Open Source | Utilization |
|---|---|---|---|---|
| 1 | MATLAB | A programming language and numeric computing platform that's used for scientific and engineering applications. It's used for data analysis, signal and image processing | Purchased / Licensed | 80% |
| 2 | PSCAD | Build, simulate, and model your systems with ease, providing limitless possibilities in power system simulation | Purchased / Licensed | 50% |
| 3 | dSPACE | Supports technology and mobility providers around the globe in making life safer, cleaner, and easier. | Open Source | 20% |
| 4 | Pspice | A software tool used to design and simulate electronic circuits. It's a standard tool in the industry for mixed-signal and reliability simulation. | Open Source | 50% |
| 5 | PLECS | A software tool used to design and simulate electronic circuits. It's a standard tool in the industry for mixed-signal and reliability simulation. | Open Source | 50% |
| 6 | VisSim | Used for traffic simulation and Multimodal transportation modelling | Open Source | 20% |
| 7 | KEIL, IAR, CCS | Provides tools for developing applications for ARM-Based microcontrollers | Open Source | 80% |

## Part E: First Year Faculty and Financial Resources

### E1: First Year Student-Faculty Ratio (FYSFR)

**Table No. E1.1 FYSFR Details**

| Year | Sanctioned intake of allUG programs (S4) | No. of required faculty (RF4= S4/20) | No. of facultymembers in Basic ScienceCourses & Humanities and Social Sciences including Managementcourses (NS1) | No. of faculty members in Engineering Science Courses (NS2) | Percentage= ((NS1*0.8)+(NS2*0.2))/RF4 |
|---|---|---|---|---|---|
| 2024-25 | 1089 | 54 | 52 | 54 | ((52 * 0.8) + (54 * 0.2) ) / 54 = 97.03 |
| 2023-24 | 1029 | 51 | 46 | 51 | ((46 * 0.8) + (51 * 0.2) ) / 51 = 92.15 |
| 2022-23 | 885 | 44 | 35 | 39 | ((35 * 0.8) + (39 * 0.2) ) / 44 = 81.36 |
| | | | | **Average Percentage** | **90.18** |

**Table No. E2.1:** Budget and Actual expenditure incurred at Institute Level

| Items | Budgeted in 2024-25 | Actual Expenses in 2024-25 (Till Feb 25) | Budgeted in 2023-24 | Actual Expenses in 2023-24 | Budgeted in 2022-23 | Actual Expenses in 2022-23 | Budgeted in 2021-22 | Actual Expenses in 2021-22 |
|---|---|---|---|---|---|---|---|---|
| Infrastructure Built-up | 37500000 | 34087015 | 20000000 | 19961745 | 11440000 | 23641439 | 6720000 | 1811376 |
| Library | 4512000 | 4749428 | 2170000 | 3728829 | 1700000 | 2808000 | 1882000 | 2431000 |
| Laboratory Equipment | 12900000 | 30290176 | 9550000 | 34428169 | 34000000 | 45247125 | 29100000 | 22275277 |
| Teaching and Non-Teaching staff Salary | 500000000 | 454846927 | 480000000 | 453029717 | 420000000 | 398383720 | 450000000 | 449856429 |
| Outreach Programme | 8500000 | 7288143 | 7500000 | 6634433 | 5000000 | 4826847 | 2500000 | 2297232 |
| R&D | 50000000 | 45340242 | 55000000 | 54769766 | 23500000 | 16812466 | 17500000 | 16767576 |
| Training Placement and Industry linkage | 4000000 | 3440664 | 10000000 | 9865322 | 4500000 | 4358414 | 3000000 | 2935137 |
| SDGs | 22500000 | 20356702 | 18000000 | 18800686 | 13500000 | 14119133 | 12000000 | 11762580 |
| Entrepreneurship | 1500000 | 1026882 | 2500000 | 2510922 | 2200000 | 1302856 | 500000 | 303146 |
| Others | 45000000 | 43725577 | 35000000 | 37344337 | 45000000 | 48437295 | 20000000 | 18136928 |
| **Total Amount** | **686412000** | **645151756** | **639720000** | **641073926** | **560840000** | **559937295** | **543202000** | **528576681** |

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

**Table No.E3.1:** Budget and Actual Expenditure incurred at Programme Level

| ITEM | Budgeted in CFY | Actual expenses in CFY (till Feb 2025) | Budgeted in 2023-24 | Actual expenses in 2023-24 | Budgeted in 2022-23 | Actual expenses in 2022-23 | Budgeted in 2021-22 | Actual expenses in 2021-22 |
|---|---|---|---|---|---|---|---|---|
| Laboratory Equipment | 500000 | 566328 | 500000 | 953164 | 2500000 | 1302975 | 1000000 | 841316 |
| Software | 2000000 | 1869826 | 2000000 | 1954699 | 1500000 | 2251247 | 1500000 | 1257925 |
| SDGs | 2000000 | 2125467 | 2000000 | 2082687 | 1500000 | 1642352 | 1500000 | 1404975 |
| Support for faculty development | 500000 | 121943 | 500000 | 89051 | 200000 | 113000 | 200000 | 88680 |
| R&D | 500000 | 495898 | 500000 | 413069 | 300000 | 326629 | 300000 | 290369 |
| Industrial training, Industry Expert, Internship | 2000000 | 1120207 | 2000000 | 1827796 | 1000000 | 1068439 | 1000000 | 624977 |
| Miscellaneous Expenses | 4500000 | 4565439 | 4500000 | 4136900 | 5000000 | 5634275 | 2000000 | 2166355 |
| **TOTAL AMOUNT** | **12000000** | **10865108** | **12000000** | **11457366** | **12000000** | **12338917** | **7500000** | **6674597** |