# NATIONAL BOARD OF ACCREDITATION

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

| | |
|---|---|
| **Program Name** : Electrical & Electronics Engineering | **Discipline**: Engineering & Technology |
| **Level** : Under Graduate | **Tier**: 1 |
| **Application No**: 10562 | **Date of Submission**: 12-04-2025 |

# PART A- Profile of the Institute

| | |
|---|---|
| **A1.Name of the Institute**: Hyderabad Institute of Technology and Management | |
| Year of Establishment : 2001 | Location of the Institute: Gowdavelli village Hyderabad |
| **A2. Institute Address**:Gowdavelli Village Medchal Mandal Ranga Reddy District Telangana State PIN 501401 | |
| City:Ranga Reddy | State:Telangana |
| Pin Code:501401 | Website:www.hitam.org |
| Email:principal@hitam.org | Phone No(with STD Code):- |
| **A3. Name and Address of the Affiliating University (if any)**: | |
| Name of the University : Jawaharlal Nehru Technological University Hyderaba | City: Ranga Reddy |
| State : Telangana | Pin Code: 500085 |
| **A4. Type of the Institution**: Self-Supported Institute | |
| **A5. Ownership Status**: Self financing | |

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

- No. of UG programs: **8**
- No. of PG programs: **0**

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

| Sr.No. | Discipline | Level of program | Name of the program | Year of Start | Year of Closed | Name of The Department |
|---|---|---|---|---|---|---|
| 1 | Engineering & Technology | UG | Computer Science and Engineering | 2001 | -- | Computer Science and Engineering |
| 2 | Engineering & Technology | UG | Computer Science and Engineering (Artificial Intelligence & Machine Learning) | 2020 | -- | Computer Science and Engineering (Artificial Intelligence and Machine Learning) |

| | | | | | | |
|---|---|---|---|---|---|---|
| 3 | Engineering & Technology | UG | Computer Science and Engineering (Cyber Security) | 2020 | 2023 | Computer Science and Engineering (Cyber Security) |
| 4 | Engineering & Technology | UG | Computer Science and Engineering (Data Science) | 2020 | -- | Computer Science and Engineering (Data Science) |
| 5 | Engineering & Technology | UG | Computer Science and Engineering (Internet of Things) | 2020 | 2023 | Computer Science and Engineering (Internet of Things) |
| 6 | Engineering & Technology | UG | Electrical and Electronics Engineering | 2001 | -- | Electrical and Electronics Engineering |
| 7 | Engineering & Technology | UG | Electronics & Communication Engineering | 2001 | -- | Electronics and Communication Engineering |
| 8 | Engineering & Technology | UG | Mechanical Engineering | 2002 | -- | Mechanical Engineering |

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

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

| Name of the Department | Having Allied Departments | Name of the Program | Program Level |
|---|---|---|---|
| Electronics and Communication Engineering | No | Electronics & Communication Engineering | UG |
| Computer Science and Engineering | Yes | Computer Science and Engineering | UG |
| Mechanical Engineering | No | Mechanical Engineering | UG |

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

| |
|---|
| No Record |

# PART-B: Program information

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

Table No. B1: Program details.
A. List of the Programs Offered by the Department:
List of the Allied Departments/Cluster and Programs:

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

| | |
|---|---|
| A. Name of the HoD : | Dr. Pedda Suresh Ogeti |
| B. Nature of appointment: | Regular |

| | |
|---|---|
| C. Qualification: | Ph.D |

**B3. Program Details**

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

| Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable) | 2024-25 (CAY) | 2023-24 (CAYm1) | 2022-23 (CAYm2) | 2021-22 (CAYm3) | 2020-21 (CAYm4) | 2019-20 (CAYm5) | 2018-19 (CAYm6) |
|---|---|---|---|---|---|---|---|
| N=Sanctioned intake of the program (as per AICTE /Competent authority) | 30 | 30 | 60 | 60 | 60 | 60 | 60 |
| 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 | 30 | 16 | 34 | 17 | 22 | 27 | 24 |
| N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats | 0 | 18 | 36 | 22 | 36 | 31 | 36 |
| N3=Separate division if any | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| N4=Total no. of students admitted in the 1st year via all supernumerary quotas | 1 | 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. | 31 | 34 | 70 | 39 | 58 | 58 | 60 |

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

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

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

| Year of entry | N (From Table 4.1) | N1 (From Table 4.1) | N4 (From Table 4.1) | Enrollment Ratio [(N1/N)*100] |
|---|---|---|---|---|
| 2024-25 (CAY) | 30 | 30 | 1 | 103.33 |
| 2023-24 (CAYm1) | 30 | 16 | 0 | 53.33 |
| 2022-23 (CAYm2) | 60 | 34 | 0 | 56.67 |

Average [ (ER1 + ER2 + ER3) / 3 ] = 71.11≡ 14.00

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

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

| Item | (2020-21) LYG | (2019-20) LYGm1 | (2018-19) LYGm2 |
|---|---|---|---|
| A*= (No. of students admitted in the 1st year of that batch and those actually admitted in the 2nd year via lateral entry, plus the number of students admitted through multiple entry (if any) and separate division if applicable, minus the number of students who exited through multiple entry (if any). | 96.00 | 91.00 | 96.00 |
| B=No. of students who graduated from the program in the stipulated course duration | 52.00 | 56.00 | 56.00 |
| Success Rate (SR)= (B/A) * 100 | 54.17 | 61.54 | 58.33 |

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 58.01

**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( 2023-24 ) | CAYm2( 2022-23 ) | CAYm3 ( 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) | 5.14 | 6.06 | 6.70 |
| Y=Total no. of successful students | 13.00 | 31.00 | 14.00 |
| Z=Total no. of students appeared in the examination | 16.00 | 34.00 | 17.00 |
| API [X*(Y/Z)] | 4.18 | 5.53 | 5.52 |

Average API[ (AP1+AP2+AP3)/3 ] : 5.08

**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 ( 2023-24 ) | CAYm2 ( 2022-23 ) | CAYm3 ( 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) | 6.64 | 7.60 | 6.60 |
| Y=Total no. of successful students | 66.00 | 36.00 | 56.00 |
| Z=Total no. of students appeared in the examination | 67.00 | 36.00 | 57.00 |
| API [ X * (Y/Z) ] | 6.54 | 7.60 | 6.48 |

Average API [ (AP1 + AP2 + AP3)/3 ] : 6.87

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

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

| Academic Performance | CAYm1 (2023-24) | CAYm2 (2022-23) | CAYm3 (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) | 7.80 | 6.80 | 5.80 |
| Y=Total no. of successful students | 35.00 | 52.00 | 56.00 |
| Z=Total no. of students appeared in the examination | 36.00 | 56.00 | 58.00 |
| API [ X*(Y/Z) ]: | 7.58 | 6.31 | 5.60 |

Average API [ (AP1 + AP2 + AP3)/3 ] : 6.50

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

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

| Item | LYG (2020-21) | LYGm1(2019-20) | LYGm2(2018-19) |
|---|---|---|---|
| FS*=Total no. of final year students | 96.00 | 91.00 | 96.00 |
| X=No. of students placed | 41.00 | 48.00 | 45.00 |
| Y=No. of students admitted to higher studies | 3.00 | 2.00 | 0.00 |
| Z= No. of students taking up entrepreneurship | 0.00 | 0.00 | 0.00 |
| Placement Index(P) = (((X + Y + Z)/FS) * 100): | 45.83 | 54.95 | 46.88 |

Average Placement Index = (P_1 + P_2 + P_3)/3: 49.22 Placement Index Points:

# PART C: Faculty Details in Department and Allied Departments

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

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

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

| Sr.No | Name of the Faculty | PAN No. | Highest degree | University | Area of Specialization | Date of Joining in this Institution | Experience in years in current institute | Designation at Time Joining in this Institution | Present Designation | The date on which Designated as Professor/ Associate Professor if any | Nature of Association (Regular/ Contract/ Ad hoc) | Currently Associated (Y/N) | In case of NO, Date of Leaving | IS HOD? |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Dr. Pedda Suresh Ogeti | XXXXXXX38H | Ph.D | NIT Rourkela | Power Electronics | 20/11/2017 | 7.4 | Professor | Professor | | Regular | Yes | | Yes |
| 2 | Suresh Kanaparthi | XXXXXXX91P | M.E/M.Tech | JNTU Hyderabad | Power Electronics | 20/07/2006 | 18.8 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | Dr. Madduluri Chiranjivi | XXXXXXX49D | Ph.D | Acharya Nagarjuna University | Power Systems | 06/03/2018 | 7.1 | Assistant Professor | Associate Professor | 06/05/2023 | Regular | Yes | | No |
| 4 | Salva V Satyanarayana | XXXXXXX93F | M.E/M.Tech | JNTU Kakinada | Power Systems-High Voltage Engineering | 01/12/2017 | 7.4 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 5 | Pillalamarri Madhavi | XXXXXXX11B | M.E/M.Tech | JNTU Hyderabad | Power Electronics | 21/12/2016 | 8.3 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 6 | Mallarapu Siddartha | XXXXXXX06C | M.E/M.Tech | JNTU Hyderabad | Power Electronics | 10/07/2017 | 7.8 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 7 | Thirlangi Sirisha | XXXXXXX39P | M.E/M.Tech | JNTU Kakinada | Power Electronics | 18/06/2018 | 6.9 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 8 | U Divya | XXXXXXX82D | M.E/M.Tech | JNTU Anantapur | Power Electronics | 06/12/2021 | 3.4 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 9 | M Rani | XXXXXXX70D | M.E/M.Tech | JNTU Hyderabad | Power Electronics | 14/06/2021 | 3.9 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 10 | Raviteja Madala | XXXXXXX74J | M.E/M.Tech | JNTU Kakinada | Power Electronics and Electrical Drives | 13/12/2021 | 3.3 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 11 | Ravi Naragani | XXXXXXX04B | M.E/M.Tech | JNTU Kakinada | Power Electronics | 09/07/2010 | 14.9 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 12 | Ch Rajasri | XXXXXXX66C | M.E/M.Tech | JNTU Hyderabad | Power Systems | 06/07/2019 | 5.9 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 13 | D Hari Krishna | XXXXXXX99F | M.E/M.Tech | IIT Chennai | Communication Systems | 03/05/2024 | 0.11 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 14 | Swathi Lakshmi Chundi | XXXXXXX33B | M.E/M.Tech | JNTU Hyderabad | Power Systems | 08/07/2020 | 4.9 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |

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

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

No. of UG(Engineering) programs in Department including allied departments/ clusters (UGn):
UG1=1st UG program
UGn=nth UG program
**B**= No. of Students in UG 2nd year (ST)
**C**= No. of Students in UG 3rd year (ST)
**D**= No. of Students in UG 4th year (ST)
No. of PG (Engineering) programs in Department including allied departments/ clusters (PGm):
PG1=1st PG program.
PGm=mth PG program
**A**= No. of Students in PG 1st year
**B**= No. of Students in PG 2nd year
Student Faculty Ratio **(SFR)** = S/F
S= No. of students of all programs in the Department including all students of allied departments/clusters.
**No. of students (ST)**=Sanctioned Intake (SA)+ Actual admitted students via lateral entry including leftover seats (L) if any (limited to 10 % of SA)
Students who admitted under supernumerary quotas (SNQ, EWS, etc) will not be considered in calculating SFR value. Those students are exempted.
**F**=Total no. of regular or contractual faculty members (Full Time) in the Department, including allied departments/clusters (excluding first year faculty (The faculty members who have a 100% teaching load in the first-year courses)).

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

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

| **Description** | **CAY(2024-25)** | **CAYm1 (2023-24)** | **CAYm2 (2022-23)** |
|---|---|---|---|
| UG1.B | 33 | 66 | 66 |
| UG1.C | 66 | 66 | 66 |
| UG1.D | 66 | 66 | 66 |
| **UG1: Electrical and Electronics Engineering** | **165** | **198** | **198** |
| DS=Total no. of students in all UG and PG programs in the Department | 165 | 198 | 198 |
| AS=Total no. of students of all UG and PG programs in allied departments | 0 | 0 | 0 |
| S=Total no. of students in the Department (DS) and allied departments (AS) | **S1=** 165 | **S2=** 198 | **S3=** 198 |
| DF=Total no. of faculty members in the Department | 14 | 13 | 13 |
| 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) | **F1=** 14 | **F2=** 13 | **F3=** 13 |
| 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) | **SFR1= 11.79** | **SFR2= 15.23** | **SFR3= 15.23** |
| Average SFR for 3 years | **SFR= 14.08** | | |

**C3. Faculty Qualification**

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

Table No.C3.1: Faculty qualification.

| Year | X | Y | RF | FQ = 2.5 x [(10X + 4Y) / RF )] |
|---|---|---|---|---|
| 2024-25(CAY) | 2 | 12 | 8.00 | 21.25 |
| 2023-24(CAYm1) | 2 | 11 | 9.00 | 17.78 |
| 2022-23(CAYm2) | 1 | 12 | 9.00 | 16.11 |

**C4. Faculty Cadre Proportion**

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

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

| Year | Professors | | Associate Professors | | Assistant Professors | |
|---|---|---|---|---|---|---|
| | Required RF1 | Available AF1 | Required RF2 | Available AF1 | Required RF3 | Available AF3 |
| 2024-25 | 1.00 | 1.00 | 1.00 | 1.00 | 5.00 | 12.00 |
| 2023-24 | 1.00 | 1.00 | 2.00 | 1.00 | 6.00 | 11.00 |
| 2022-23 | 1.00 | 1.00 | 2.00 | 0.00 | 6.00 | 12.00 |
| Average | RF1=1.00 | AF1=1.00 | RF2=1.67 | AF2=0.67 | RF2=5.67 | AF2=11.67 |

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

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

**(CAYm1)**

| S.No | Name of the Person | Designation | Organization | Name of the Course | No. of hours handled |
|---|---|---|---|---|---|
| 1 | Dr. Sreedhar Madichetty | Assoc Professor | Mahindra University | Eletric Hybrid Vehicles | 3.00 |
| 2 | Dr. O Sobhana | Assistant Professor | VNRVJIET | Power Systems-III | 4.00 |
| 3 | Pothineni Chaitanya | General manager | Jhonsons Lifts | Fundamentals of Management for Engineers | 3.00 |
| 4 | Narasinha Mikkilineni | Trainer | LACE Academy | Analytical Reasoning | 32.00 |
| 5 | Mohammad Aymon | Asst. Professor | NALSAR University | Constitution of India | 9.00 |
| 6 | Narasinha Mikkilineni | Trainer | LACE Academy | Quantitative Aptitude | 30.00 |

**(CAYm2)**

| S.No | Name of the Person | Designation | Organization | Name of the Course | No. of hours handled |
|---|---|---|---|---|---|
| 1 | Dr. Nagaraju | Assoc. Prof | VNRVJIET | Matrix Algebra and Calculas | 11.00 |
| 2 | Sindhura , Syurya, Dhanusha | Trainer | Talentio | Phython Programming | 20.00 |
| 3 | Narasinha Mikkilineni | Trainer | LACE Academy | Analytical Reasoning | 30.00 |
| 4 | Narasinha Mikkilineni | Trainer | LACE Academy | Quantitative Aptitude | 30.00 |

**(CAYm3)**

| S.No | Name of the Person | Designation | Organization | Name of the Course | No. of hours handled |
|---|---|---|---|---|---|
| 1 | D Rajesh Reddy | Scientist | ISRO | Real time applications in Electrical Engineering using SCADA | 5.00 |
| 2 | Mr Husain | Assistant Professor | BVRIT | Signals & Systems | 28.00 |
| 3 | Mr Husain | Assistant Professor | BVRIT | Control Systems | 25.00 |

**C6. Academic Research**

Table No. C6.1: Faculty publication details.

| S.No. | Item | 2023-24 (CAYm1) | 2022-23 (CAYm2) | 2021-22 (CAYm3) |
|---|---|---|---|---|
| 1 | No. of peer reviewed journal papers published | 16 | 11 | 7 |
| 2 | No. of peer reviewed conference papers published | 17 | 14 | 6 |
| 3 | No. of books/book chapters published | 2 | 0 | 0 |

**C7. Sponsored Research Project**

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

**(CAYm1)**

**(CAYm2)**

**(CAYm3)**

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

**Note*:**

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

**C8. Consultancy Work**

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

**(CAYm1)**

| **PI Name** | **Co-PI names if any** | **Name of the Dept., where project is sanctioned** | **Project Title*** | **Name of the Funding agency** | **Duration of the project** | **Amount(Lacs) i.e. 15,25,000=15.25** |
|---|---|---|---|---|---|---|
| Dr. Madduluri Chiranjivi | Mr. Salava V Satyanarayana | Electrical & Electronics Engineering | Electric Motor Cycle with Liquid Cooled battery | Apsuja Infratech | 2 Years | 5.25 |
| Dr. Rajeshwar Goud | Ms. Pillalamarri Madhavi | Electronics and Communications Engineering & Electrical and Electronics Engineering | Growth of Algae: Novel Methodology Improve Traditional Aqua -Farming Using Emerging Technologies | Technumen Systems Private Limited | 2 Years | 5.00 |
| | | | | | | Amount received (Rs.):10.25 |

**(CAYm2)**

| **PI Name** | **Co-PI names if any** | **Name of the Dept., where project is sanctioned** | **Project Title*** | **Name of the Funding agency** | **Duration of the project** | **Amount(Lacs) i.e. 15,25,000=15.25** |
|---|---|---|---|---|---|---|
| Dr. Pedda Suresh Ogeti | Dr. Devika SV, Ms. Pillalamarri Madhavi | Electrical and Electronics Engineering and Electronics and communication Engineering | Multi Function Electric Bycle | Technumen Systems Private Limited | 18 Months | 5.96 |
| Dr M. Chiranjivi | Mr. Salava V Satyanarayana, Mrs. Bindu Madhavi | Electrical and Electronics Engineering and Electronics and communication Engineering | Cruising with confidence: Electric Tricycle for empowered Handicapped Travel | Collaborate Solutions Private Limited | 18 Months | 6.05 |
| | | | | | | Amount received (Rs.):12.01 |

**(CAYm3)**

| PI Name | Co-PI names if any | Name of the Dept., where project is sanctioned | Project Title* | Name of the Funding agency | Duration of the project | Amount(Lacs) i.e. 15,25,000=15.25 |
|---|---|---|---|---|---|---|
| Dr. Pedda Suresh Ogeti | Mr. K. Suresh | Electrical & Electronics Engineering | Mini E-Scooter | Shigna industries corp. | 5 Months | 1.25 |
| | | | | | | Amount received (Rs.):1.25 |

**Total amount (Lacs) received for the past 3 years: 23.51**

**Note*:**

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

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

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

**(CAYm1)**

| Faculty name | Project title/ Support for Activity | Duration of the project | Amount(Lacs) i.e. 15,25,000=15.25 | Amount Utilized(Lacs) i.e. 15,25,000=15.25 | Outcomes of the project |
|---|---|---|---|---|---|
| Ms. Pillalamarri Madhavi | Growth of Algae: Novel Methodology Improve Traditional Aqua -Farming Using Emerging Technologies | 1 Year | 1.50 | 1.30 | Enhanced Algal Cultivation Efficiency |
| | | | Amount received (Rs.): 1.50 | | |

**(CAYm2)**

| Faculty name | Project title/ Support for Activity | Duration of the project | Amount(Lacs) i.e. 15,25,000=15.25 | Amount Utilized(Lacs) i.e. 15,25,000=15.25 | Outcomes of the project |
|---|---|---|---|---|---|
| Dr. OP Suresh | Smart E-Multi Function Electric Byclewith Enhanced Functions | 9 Months | 0.90 | 0.80 | Prototype Development with Smart Enhancements |
| | | | Amount received (Rs.): 0.90 | | |

**(CAYm3)**

| Faculty name | Project title/ Support for Activity | Duration of the project | Amount(Lacs) i.e. 15,25,000=15.25 | Amount Utilized(Lacs) i.e. 15,25,000=15.25 | Outcomes of the project |
|---|---|---|---|---|---|
| Dr. Pedda Suresh Ogeti | Adaptive Electric Bicycle with Integrated Smart Features | 3 Months | 0.50 | 0.50 | Multi-Functional Design Prototype Developed |
| | | | Amount received (Rs.): 0.50 | | |

**Total amount (Lacs) received for the past 3 years : 2.90**

# PART D: Laboratory Infrastructure in the Department

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

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

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

| Sr. No | Name of the Laboratory | Number of students per set up(Batch Size) | Name of the Important Equipment | Weekly utilization status(all the courses for which the lab is utilized) | Technical Manpower Support | | |
|---|---|---|---|---|---|---|---|
| | | | | | Name of the Technical staff | Designation | Qualification |
| 1 | Electrical Machines-I Lab | 5 | DC Shunt Motor DC Compound Motor DC Series Motor DC shunt Generator DC | 16 HOURS | Mr. S. Sivaraj | Lab Instructor | DIPLOMA in Electr |
| 2 | Electrical Circuits Lab ( ECA-I, BEEE) | 5 | DC Power Supply (Variable Power Supply) Function Generator Single phase | 20 HOURS | MS. Keerthana | Lab Instructor | DIPLOMA in Electr |
| 3 | Electrical Machines -II &Power systems Lab | 5 | Single Phase Transformer Three Phase Transformer Three Phase Induction Motor | 16 HOURS | Mr.P.Praveen | Lab Instructor | I.T.I in Electrical Er |
| 4 | Instrumentation and Control Systems -Lab | 5 | SynchroTransmitter receiver pair PID Controller Dc Servomotor Study of Lead-Lag | 16 HOURS | Mr.G.Vijay | Lab Instructor | DIPLOMA in Electr |
| 5 | Power Electronics Lab | 5 | MOSFET & IGBT RL & RC Triggering of SCR ,UJT Triggering of SCR Single Phase Fully | 18 HOURS | Mr.K.Anand | Lab Instructor | DIPLOMA in Electr |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 6 | Electrical simulation Lab (Doing Engineering, Power systems | 5 | Servo motor 4W DIY Kit Relay Module GPS Flight control Computers-4GB RAM ,MATLAB Software | 24 HOURS | Mr.G.Shyamlal | Lab Instructor | DIPLOMA in Electr |

**D2. Safety Measures in Laboratories**

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

| Sr. No | Laboratory Name | Safety Measures |
|---|---|---|
| 1 | Electrical Machines-I Lab | Inspect electrical equipment for damage before use. Avoid Metal Tools Near Live Parts Maintain a clean & organized laboratory. MCBs are available to control power fluctuations • Specific Safety rules for Students displayed First aid box & fire extinguisher are kept in the laboratory Safety Mats |
| 2 | Electrical Circuits Lab | Proper Earthing and Grounding Maintain a clean & organized laboratory. Use only low-voltage DC power supplies for breadboard circuits. • Checking components for correct ratings before use. Specific Safety rules for Students displayed. First aid box & fire extinguisher are kept in the laboratory MCBs are available to control power fluctuations |
| 3 | Electrical Machines -II Lab | Inspect electrical equipment for damage before use. Avoid Metal Tools Near Live Parts. Maintain a clean & organized laboratory. • MCBs are available to control power fluctuations Specific Safety rules for Students displayed First aid box & fire extinguisher are kept in the laboratory. Safety Mats |
| 4 | Control Systems -Lab | Inspect electrical equipment for damage before use. Maintain a clean & organized laboratory. MCBs are available to control power fluctuations. Use of Low-Voltage Power Supplies. Proper Grounding of Equipment. Specific Safety rules for Students displayed. First aid box & fire extinguisher are kept in the laboratory. |
| 5 | Measurements & instrumentation -Lab | Use of Calibrated Instruments Only. Avoid Overloading Measuring Devices. Insulated Probes and Cables. Dry Hands and Work Area. Avoid Short Circuits in Test Circuits. Specific Safety rules for Students displayed. First aid box & fire extinguisher are kept in the laboratory. Inspect electrical equipment for damage before use. Maintain a clean & organized laboratory. MCBs are available to control power fluctuations |
| 6 | Power systems simulation Lab | First aid box & fire extinguisher are kept in the laboratory. Maintain a clean & organized laboratory. Use surge protectors and UPS for all machines. Avoid overloading power outlets. Maintain good ventilation to prevent overheating. Restrict use of external USBs unless scanned. |

| | | |
|---|---|---|
| 7 | Basic Electrical and Electronics Engineering lab | Understand Equipment Ratings Before Use Use Low Voltage for Experiments Proper Insulation of Wires and Cables Use Breadboards and PCB Kits Correctly Check Power Supply Output Before Connection Specific Safety rules for Students displayed. First aid box & fire extinguisher are kept in the laboratory. Inspect electrical equipment for damage before use. Maintain a clean & organized laboratory. MCBs are available to control power fluctuations. |
| 8 | Power systems Lab | MCBs are available to control power fluctuations Operate Equipment Within Rated Limits No Direct Contact with Live Terminals Clear Indication of High Voltage Areas Avoid Metallic Accessories (rings, watches) Specific Safety rules for Students displayed. First aid box & fire extinguisher are kept in the laboratory. Inspect electrical equipment for damage before use. Maintain a clean & organized laboratory. Safety Mats. |
| 9 | Electrical and Electronics Design Lab | Operate Only Low-Voltage Circuits Avoid Overcurrent Conditions Clean Workstation Regularly Specific Safety rules for Students displayed. First aid box & fire extinguisher are kept in the laboratory. Inspect electrical equipment for damage before use. Maintain a clean & organized laboratory. MCBs are available to control power fluctuations |
| 10 | DOING ENGINEERING-I & II LABORATORY | Specific Safety rules for Students displayed. First aid box & fire extinguisher are kept in the laboratory. Inspect electrical equipment for damage before use. Maintain a clean & organized laboratory. |
| 11 | Power Electronics Lab | Make sure all circuit components are rated for the Expected voltage/current. Never exceed the voltage/current ratings of components like MOSFETs, IGBTs, capacitors, etc Use fuse protection or circuit breakers for experimental setups. Use banana plugs, binding posts, and proper connectors—avoid loose wires Specific Safety rules for Students displayed. First aid box & fire extinguisher are kept in the laboratory. Inspect electrical equipment for damage before use. |

**D3. Project Laboratory/Research Laboratory**

| S. No | Name of the Laboratory |
|---|---|
| 1 | Project lab /Student Skill Development Center |
| 2 | Center for Renewable Energy |

**1.**

1. **Project lab /Student Skill Development Center (SSDC)**

**Objectives**:

- Equip students with practical skills in emerging technologies like Arduino, PLC programming and python to close the industry-academia gap
- Emphasize critical thinking, Problem-solving and lifelong learning through a curriculum aligned with current industry needs in electrical and electronics engineering.

**Value addition to students:**

- Internships in core domain
- Enhanced career opportunities

**Outcomes:**

- Exposure to core technologies
- Certification
- Paper publications
- Patents

**Major Achievements**:

- 3 patents were published
- 27 students along faculty published in Peer reviewed journals
- 5 students completed research internships at IIIT Hyderabad (2023-2024)
- Hitam team won 1$^{st}$ prize in national CODE &WIRE-Arduino competition, Hyderabad.
- 240 students certified in industrial automation with PLC (online/offline).


Figure: Projects developed by students in SSDC

Table: Activities under Student Skill Development Center

| S. No | Name of the Activity | Title |
|---|---|---|
| 1 | Student paper Publications | No. of Publication:27 |
| 2 | Industry innovation cell | No. of Projects Uploaded:40 |
| 3 | Project expo | No. of awards received:2 |

**2. Center for Renewable energy**:

The Department of Electrical and Electronics Engineering established a Center for Renewable energy in 2022 established to address the growing need for clean, sustainable, and affordable energy solutions.

Objectives: To conduct advanced research in solar, wind, biomass, and other renewable energy sources, encouraging innovation in clean energy technologies.

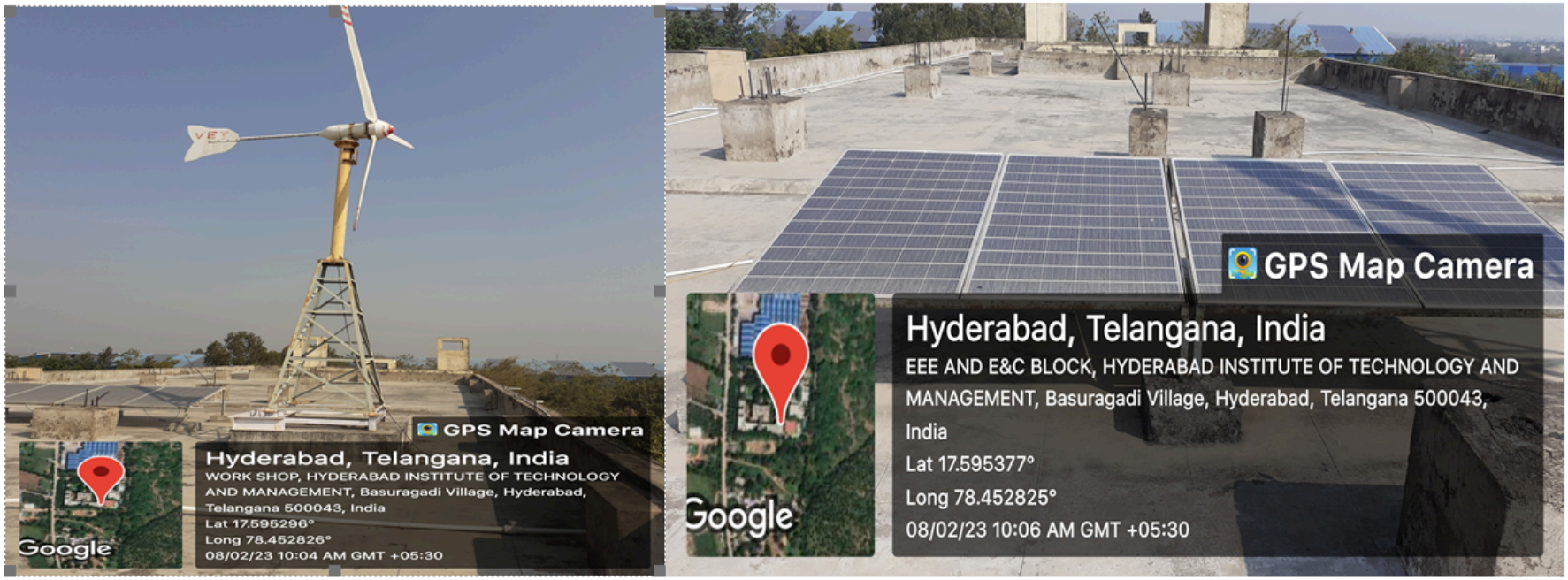


Figure: Establishment of windmill and solar power


Figure: Sample certificate on “Advanced Electric Vehicle Technology”

**Outcomes**:

- Enhanced Research Output
- Skill Development and Employability
- Increased Student Participation in Competitions and Projects
- Sustainability Awareness and Impact

**Recognition:** The project titled “A novel construction of renewable energy resources micro grid compensated by D-facts and power consumers security using pre-postpaid energy meter with GSM technique” is funded by Department of Science and Technology worth 38.1 Lakhs.

**Table: Activities conducted under centre in the year 2024-25:**

| S. No | Name of the Activity | Details of the activity |
|---|---|---|
| 1 | Workshop | Advanced Electric Vehicle Technology |
| 2 | Faculty Development Program | Sustainable practices-Green building and Energy Management |
| 3 | Student projects | Sustainable energy solutions using solar panel and micro turbine |

| | | |
|---|---|---|
| 4 | Student projects | V2V charging for Electric Vehicle |
| 5 | Student projects | IOT based smart lab for energy prediction and automation |
| 6 | Student projects | IOT Based Smart Battery Monitoring System with Fault Analysis and Battery Life Prediction for Electric Vehicles |
| 7 | Student projects | Wireless solar mobile charger |
| 8 | Student projects | Design and Implementation of a Solar and Dynamo-Powered Hybrid Energy System for E-Bike |
| 9 | Student projects | Sustainable Energy Solution Using Solar Panel and Micro Turbine |
| 10 | Student projects | Design, Development, and Performance Evaluation of a Self-Charging Solar-Powered medical assistance Unmanned Aerial Vehicle (UAV) |

- 10 Papers published under Centre for Renewable Energy

# PART E: First Year faculty and financial Resources

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

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

Table No. E1.1: FYSFR details.

| Year | Sanctioned intake of all UG programs (S4) | No. of required faculty (RF4= S4/20) | No. of faculty members in Basic Science Courses & Humanities and Social Sciences including Management courses (NS1) | No. of faculty members in Engineering Science Courses (NS2) | Percentage= No. of faculty members ((NS1*0.8) + (NS2*0.2))/(No. of required faculty (RF4)); Percentage= ((NS1*0.8) + (NS2*0.2))/RF |
|---|---|---|---|---|---|
| 2022-23(CAYm2) | 540 | 27 | 20 | 10 | 67 |
| 2023-24(CAYm1) | 600 | 30 | 22 | 11 | 66 |
| 2024-25(CAY) | 720 | 36 | 30 | 13 | 74 |

**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 2024-2025 | Actual Expenses in 2024-2025 till | Budgeted in 2023-2024 | Actual Expenses in 2023-2024 till | Budgeted in 2022-2023 | Actual Expenses in 2022-2023 till | Budgeted in 2021-2022 | Actual Expenses in 2021-2022 till |
|---|---|---|---|---|---|---|---|---|
| Infrastructure Built-Up | 130000000 | 136628792 | 38000000 | 40769983 | 2000000 | 2205450 | 45000000 | 47342252 |
| Library | 700000 | 452723 | 1200000 | 1365752 | 1000000 | 1136130 | 1000000 | 959710 |
| Laboratory equipment | 2800000 | 3086525 | 8000000 | 8749441 | 4500000 | 4929643 | 5500000 | 5576837 |
| Teaching and non-teaching staff salary | 155000000 | 156312830 | 150000000 | 146247866 | 113000000 | 112295386 | 75000000 | 74849825 |
| Outreach Programs | 500000 | 477434 | 1000000 | 1175039 | 300000 | 298885 | 500000 | 335748 |
| R&D | 800000 | 504700 | 1500000 | 1341214 | 500000 | 502582 | 1550000 | 1644500 |
| Training, Placement and Industry linkage | 4500000 | 4889355 | 3500000 | 3450861 | 2500000 | 2395655 | 3000000 | 3834576 |
| SDGs | 2200000 | 2117622 | 2000000 | 2363732 | 500000 | 613062 | 1500000 | 1530944 |
| Entrepreneurship | 500000 | 488816 | 500000 | 500000 | 1000000 | 1256784 | 1000000 | 705555 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Others, specify | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Total** | **297000000** | **304958797** | **205700000** | **205963888** | **125300000** | **125633577** | **134050000** | **136779947** |

**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 2024-2025** | **Actual Expenses in 2024-2025 till** | **Budgeted in 2023-2024** | **Actual Expenses in 2023-2024 till** | **Budgeted in 2022-2023** | **Actual Expenses in 2022-2023 till** | **Budgeted in 2021-2022** | **Actual Expenses in 2021-2022 till** |
|---|---|---|---|---|---|---|---|---|
| Laboratory equipment | 200000 | 130288 | 700000 | 656236 | 350000 | 320253 | 350000 | 331305 |
| Software | 150000 | 116634 | 50000 | 43720 | 100000 | 74119 | 150000 | 114842 |
| SDGs | 200000 | 169410 | 200000 | 189099 | 50000 | 49045 | 150000 | 122476 |
| Support for faculty development | 250000 | 242020 | 400000 | 369632 | 600000 | 566708 | 300000 | 276505 |
| R & D | 50000 | 40376 | 100000 | 107297 | 50000 | 40207 | 150000 | 131560 |
| Industrial Training, Industry expert, Internship | 400000 | 391148 | 300000 | 276070 | 200000 | 191652 | 300000 | 306766 |
| Miscellaneous Expenses* | 10000 | 0 | 10000 | 0 | 5000 | 0 | 5000 | 0 |
| **Total** | **1260000** | **1089876** | **1760000** | **1642054** | **1355000** | **1241984** | **1405000** | **1283454** |