NATIONAL BOARD OF ACCREDITATION

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

| | |
|---|---|
| **Program Name** : Electronics & Communication Engineering | **Discipline**: Engineering & Technology |
| **Level** : Under Graduate | **Tier**: 1 |
| **Application No**: 10826 | **Date of Submission**: 20-07-2025 |

# PART A- Profile of the Institute

| | |
|---|---|
| **A1.Name of the Institute**: NARSIMHA REDDY ENGINEERING COLLEGE | |
| Year of Establishment : 2007 | Location of the Institute: Maisammaguda (V), Kompally - 500100, Secunderabad |
| **A2. Institute Address**:Maisammaguda, Dhulapally via Kompally, Secunderabad - 500100 | |
| City:Ranga Reddy | State:Telangana |
| Pin Code:500100 | Website:http://www.nrcmec.org |
| Email:principal@nrcmec.org | Phone No(with STD Code):040-23792455 |
| **A3. Name and Address of the Affiliating University (if any)**: | |
| Name of the University : JNTUH HYDERABAD | City: Medchal |
| 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: **9**
- No. of PG programs: **1**

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 | Civil Engineering | 2013 | -- | Civil Engineering |
| 2 | Engineering & Technology | UG | Computer Science and Engineering | 2007 | -- | Computer Science and Engineering |
| 3 | Engineering & Technology | UG | Computer Science and Engineering (Artificial Intelligence & Machine Learning) | 2020 | -- | Computer Science and Engineering (Artificial Intelligence and Machine Learning) |
| 4 | Engineering & Technology | UG | Computer Science and Engineering (Cyber Security) | 2020 | -- | Computer Science and Engineering (Cyber Security) |
| 5 | Engineering & Technology | UG | Computer Science and Engineering (Data Science) | 2020 | 2023 | Computer Science and Engineering (Data Science) |
| 6 | Engineering & Technology | UG | Electrical and Electronics Engineering | 2009 | -- | Electrical and Electronics Engineering |
| 7 | Engineering & Technology | UG | Electronics & Communication Engineering | 2007 | -- | Electronics and Communication Engineering |

| | | | | | | |
|---|---|---|---|---|---|---|
| 8 | Engineering & Technology | UG | Information Technology | 2023 | -- | Information Technology |
| 9 | Engineering & Technology | UG | Mechanical Engineering | 2009 | -- | Mechanical Engineering |
| 10 | Management | PG | Master of Business Administration | 2009 | -- | Management |

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

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

| Name of the Department | Having Allied Departments | Name of the Program | Program Level |
|---|---|---|---|
| Electrical and Electronics Engineering | No | Electrical and Electronics Engineering | UG |
| Electronics and Communication Engineering | No | Electronics & Communication Engineering | UG |
| Civil Engineering | No | Civil Engineering | UG |

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

| |
|---|
| No Record |

# PART-B: Program information

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

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

| SR.NO. | PROGRAM NAME | PROGRAM APPLIED LEVEL | YEAR OF START / YEAR OF CLOSED | SANCTIONED INTAKE | INCREASE/DECREASE INTAKE (if any) | YEAR OF INCREASE/DECREASE | CURRENT INTAKE | YEAR OF AICTE APPROVAL | AICTE/COMPETENT AUTHORITY ARROVAL DETAILS | ACCREDITATION STATUS | FROM | TO | NO. OF TIMES PROGRAM ACCREDITI |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Electronics & Communication Engineering | UG | 2007 / -- | 60 | Yes | 2008 | 120 | 2008 | F. No. 730-50-521 (E)/ET/2007 | Granted accreditation for 3 years for the period (specify period) | 2022 | 2025 | 2 |

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 KALISETTI PURUSHOTHAM PRASAD |
| 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) | 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 | 118 | 119 | 119 | 96 | 120 | 120 | 120 |
| N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats | 0 | 14 | 14 | 37 | 12 | 8 | 12 |
| 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 | 7 | 8 | 8 | 6 | 0 | 0 | 0 |
| Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points. | 125 | 141 | 141 | 139 | 132 | 128 | 132 |

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) | 120 | 118 | 7 | 104.17 |
| 2023-24 (CAYm1) | 120 | 119 | 8 | 105.83 |
| 2022-23 (CAYm2) | 120 | 119 | 8 | 105.83 |

Average [ (ER1 + ER2 + ER3) / 3 ] = 105.28≡ 100

**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). | 132.00 | 128.00 | 132.00 |
| B=No. of students who graduated from the program in the stipulated course duration | 124.00 | 109.00 | 107.00 |
| Success Rate (SR)= (B/A) * 100 | 93.94 | 85.16 | 81.06 |

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 86.72

**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 ) |
|---|---|---|---|
| Mean of CGPA or mean percentage of all successful students(X) | 7.64 | 7.32 | 7.05 |
| Y=Total no. of successful students | 121.00 | 125.00 | 99.00 |
| Z=Total no. of students appeared in the examination | 121.00 | 125.00 | 99.00 |
| API [X*(Y/Z)] | 7.64 | 7.32 | 7.05 |

Average API[ (AP1+AP2+AP3)/3 ] : 7.34

**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) | 7.82 | 7.63 | 7.34 |
| Y=Total no. of successful students | 133.00 | 134.00 | 130.00 |
| Z=Total no. of students appeared in the examination | 139.00 | 136.00 | 131.00 |
| API [ X * (Y/Z) ] | 7.48 | 7.52 | 7.28 |

Average API [ (AP1 + AP2 + AP3)/3 ] : 7.43

**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) | 7.92 | 7.74 | 7.43 |
| Y=Total no. of successful students | 130.00 | 130.00 | 127.00 |
| Z=Total no. of students appeared in the examination | 134.00 | 130.00 | 128.00 |
| API [ X*(Y/Z) ]: | 7.68 | 7.74 | 7.37 |

Average API [ (AP1 + AP2 + AP3)/3 ] : 7.60

**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 | 132.00 | 128.00 | 132.00 |
| X=No. of students placed | 100.00 | 99.00 | 101.00 |
| Y=No. of students admitted to higher studies | 5.00 | 5.00 | 5.00 |
| Z= No. of students taking up entrepreneurship | 1.00 | 0.00 | 0.00 |
| Placement Index(P) = (((X + Y + Z)/FS) * 100): | 80.30 | 81.25 | 80.30 |

Average Placement Index = (P_1 + P_2 + P_3)/3: 80.62 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 KALISETTI PURUSHOTHAM PRASAD | XXXXXXX21K | Ph.D | Sri Venkateswara University, Tirupati, Andhra Pradesh | Signal processing | 16/08/2022 | 2.10 | Professor | Professor | 16/08/2022 | Regular | Yes | | Yes |
| 2 | Dr SHOBAN MUDE | XXXXXXX49L | Ph.D | Osmania University, Hyderabad, Telangana | VLSI | 01/03/2021 | 4.3 | Associate Professor | Professor | 03/06/2024 | Regular | Yes | | No |
| 3 | Dr KARNEY DAMODAR | XXXXXXX26M | Ph.D | SunRise University Campus, Alwar, Rajasthan | Wireless Communication | 28/04/2022 | 3.1 | Associate Professor | Associate Professor | 28/04/2022 | Regular | Yes | | No |
| 4 | Dr PURANDHAR REDDY V | XXXXXXX73R | Ph.D | Vellore Institute of Technology University, Chennai, Tamil Nadu | Computer Vision | 24/07/2023 | 1.11 | Assistant Professor | Associate Professor | 16/12/2024 | Regular | Yes | | No |
| 5 | Dr GORRE NAGA JYOTHI SREE | XXXXXXX97Q | Ph.D | Vignan's Foundation for Science, Technology and Research (Deemed to be University), Vadlamudi,Guntur | RF & Microwave | 24/07/2023 | 1.11 | Associate Professor | Associate Professor | 24/07/2023 | Regular | Yes | | No |
| 6 | Dr R. MURUGESAN | XXXXXXX59J | Ph.D | Anna University Chennai, Tamil Nadu | INFORMATION AND COMMUNICATION ENGINNERING | 16/12/2019 | 5.4 | Associate Professor | Associate Professor | 16/12/2019 | Regular | No | 10/05/2025 | No |
| 7 | NEELAM PAVITHRA | XXXXXXX46K | M.Tech | Sri Venkateswara University, Tirupati, Andhra Pradesh | Electronics instrumentation and Communication systems | 16/02/2023 | 2.4 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 8 | VELPURI NAGA LAKSHMI | XXXXXXX38R | M.Tech | Jawaharlal Nehru Technological University Hyderabad | Digital Systems and Computer Electronics | 03/07/2021 | 3.11 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 9 | BANDI RAJU | XXXXXXX82P | M.Tech | Jawaharlal Nehru Technological University Hyderabad | VLSI Design | 04/11/2019 | 5.7 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 10 | NAGIRI RAMESH KUMAR | XXXXXXX77H | M.Tech | Jawaharlal Nehru Technological University Hyderabad | Electronics and Communication Engineering | 17/08/2015 | 9.10 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 11 | LINGOJI HARIKRISHNA CHARY | XXXXXXX74N | M.Tech | Jawaharlal Nehru Technological University Hyderabad | VLSI and Embedded systems | 31/01/2022 | 3.4 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | JAYASRI MOTHUKURI | XXXXXXX70L | M.Tech | Jawaharlal Nehru Technological University Kakinada, Andhra Pradesh | Digital Electronics and Communication Systems | 11/07/2022 | 2.11 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 13 | GANDIKOTA SUJANA | XXXXXXX51L | M.Tech | Jawaharlal Nehru Technological University Hyderabad | Embedded Systems | 07/07/2023 | 1.11 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 14 | GOUSIYA BEGUM | XXXXXXX46G | M.Tech | Jawaharlal Nehru Technological University Hyderabad | VLSI System Design | 07/08/2023 | 1.10 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 15 | SIVA KALYANI PAPPURU | XXXXXXX69N | M.Tech | Jawaharlal Nehru Technological University Anantapur, Andhra Pradesh | Embedded Systems | 07/07/2023 | 1.11 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 16 | Y MARY MANIKYA VEENA | XXXXXXX49Q | M.Tech | Jawaharlal Nehru Technological University Hyderabad | VLSI System Design | 03/07/2023 | 1.11 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 17 | MUTHYALA ARUNA JYOTHI | XXXXXXX68R | M.Tech | Jawaharlal Nehru Technological University Hyderabad | Embedded Systems & VLSI Design | 08/07/2024 | 0.11 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 18 | NAGELLA JYOTHSNA | XXXXXXX71J | M.Tech | JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, ANANTAPUR | VLSI (or) VLSI System Design (or) VLSI Systems | 18/06/2024 | 1 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 19 | M SUDHAKAR | XXXXXXX68G | M.Tech | JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, ANANTAPUR | Digital system and Computer Electonics | 29/07/2024 | 0.10 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 20 | KODA KARTHIK | XXXXXXX73L | M.Tech | Jawaharlal Nehru Technological University Hyderabad | VLSI SYSTEM DESIGN | 24/07/2023 | 1.11 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 21 | TIRUPATHI VEERAMANI | XXXXXXX99D | M.Tech | Jawaharlal Nehru Technological University Hyderabad | VLSI SYSTEM DESIGN | 26/10/2015 | 9.8 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 22 | AMGOTH SRINIVAS | XXXXXXX89J | M.Tech | Jawaharlal Nehru Technological University Hyderabad | VLSI SYSTEM DESIGN | 10/03/2022 | 3.3 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 23 | G JOY SANGEET RAJ | XXXXXXX64H | M.Tech | Jawaharlal Nehru Technological University Hyderabad | Embedded Systems | 13/07/2023 | 1.11 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 24 | SUNITHA BAI J | XXXXXXX31G | M.Tech | JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, ANANTAPUR | VLSI System Design | 22/01/2024 | 1.4 | Assistant Professor | Assistant Professor | | Regular | No | 03/06/2025 | No |
| 25 | DICHIPALLY YESHA SREE | XXXXXXX81E | M.Tech | Jawaharlal Nehru Technological University Hyderabad | EMBEDDED SYSTEMS | 15/03/2021 | 4.1 | Assistant Professor | Assistant Professor | | Regular | No | 03/05/2025 | No |
| 26 | SHAIK KHALEEL | XXXXXXX75J | M.Tech | Jawaharlal Nehru Technological University Kakinada, Andhra Pradesh | VLSI SYSTEM DESIGN | 02/03/2020 | 5.3 | Assistant Professor | Assistant Professor | | Regular | No | 05/06/2025 | No |
| 27 | SRIDHAR M | XXXXXXX29E | M.Tech | Jawaharlal Nehru Technological University Hyderabad | Electronics and Communication Engineering | 17/06/2024 | 0.10 | Assistant Professor | Assistant Professor | | Regular | No | 09/05/2025 | No |
| 28 | M SREEDHAR REDDY | XXXXXXX58R | M.Tech | Jawaharlal Nehru Technological University Hyderabad | Systems and Signal Processing | 02/01/2025 | 0.5 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 29 | A DILEEP | XXXXXXX74B | M.Tech | Jawaharlal Nehru Technological University Hyderabad | VLSI SYSTEM DESIGN | 31/12/2024 | 0.5 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 30 | K ANURADHA | XXXXXXX40Q | M.Tech | Jawaharlal Nehru Technological University Hyderabad | Electronics and Communication Engineering | 18/06/2025 | 0 | Assistant Professor | Assistant Professor | | Regular | Yes | | No |
| 31 | Dr R Venkata Krishnaiah | XXXXXXX71N | Ph.D | Jawaharlal Nehru Technological University, Anantapur, Andhra Pradesh | Embedded Systems | 25/01/2022 | 2.5 | Professor | Professor | 25/01/2022 | Regular | No | 23/07/2024 | No |
| 32 | GOKULA SPICA SUJEETHA | XXXXXXX15P | M.Tech | Jawaharlal Nehru Technological University Hyderabad | Wireless and Mobile Communication | 16/02/2021 | 3.3 | Assistant Professor | Assistant Professor | | Regular | No | 06/06/2024 | No |
| 33 | LAKSHMI K | XXXXXXX71L | M.Tech | Jawaharlal Nehru Technological University Hyderabad | VLSI System Design | 04/07/2012 | 12 | Assistant Professor | Assistant Professor | | Regular | No | 20/07/2024 | No |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 34 | Dr HONEY DURGA PRASAD TIWARI | XXXXXXX63G | Ph.D | Konkuk University, Republic of Korea | Wireless Communication | 06/06/2018 | 5 | Professor | Professor | 06/06/2018 | Regular | No | 10/06/2023 | No |
| 35 | MANASA KOPPULA | XXXXXXX94D | M.Tech | Jawaharlal Nehru Technological University Hyderabad | Wireless Mobile Communication | 30/07/2021 | 1.11 | Assistant Professor | Assistant Professor | | Regular | No | 03/07/2023 | No |
| 36 | KALAKA ANNAMMA | XXXXXXX34E | M.Tech | Jawaharlal Nehru Technological University Hyderabad | VLSI System Design | 24/01/2022 | 1.5 | Assistant Professor | Assistant Professor | | Regular | No | 14/07/2023 | No |
| 37 | ERRA PRANUSHA | XXXXXXX73J | M.Tech | Jawaharlal Nehru Technological University Hyderabad | Embedded Systems | 02/03/2020 | 3.3 | Assistant Professor | Assistant Professor | | Regular | No | 30/06/2023 | No |
| 38 | PREETHAM MANDAL | XXXXXXX09M | M.Tech | Techno India University, Kolkata, West Bengal | Electronics and Communication Engineering | 07/07/2021 | 1.11 | Assistant Professor | Assistant Professor | | Regular | No | 24/06/2023 | No |
| 39 | LINGAM SAILAJA | XXXXXXX44E | M.Tech | Jawaharlal Nehru Technological University Hyderabad | Digital System and Computer Electronics | 31/07/2021 | 1.11 | Assistant Professor | Assistant Professor | | Regular | No | 03/07/2023 | No |
| 40 | PUSULURU SUREKHA | XXXXXXX87K | M.Tech | Jawaharlal Nehru Technological University Hyderabad | Embedded Systems and VLSI Design | 30/07/2021 | 1.10 | Assistant Professor | Assistant Professor | | Regular | No | 21/06/2023 | No |
| 41 | NIMMALA SWETHA | XXXXXXX70H | M.Tech | Jawaharlal Nehru Technological University Hyderabad | Embedded Systems | 30/07/2021 | 1.11 | Assistant Professor | Assistant Professor | | Regular | No | 25/07/2023 | No |
| 42 | Dr R Kalyani | XXXXXXX32P | M.Tech | Annamalai University, Tamil Nadu | Electronics and Communication Engineering | 01/03/2022 | 0.5 | Associate Professor | Associate Professor | | Regular | No | 23/08/2022 | No |
| 43 | AHANKARI SACHIN SURESH | XXXXXXX32C | M.Tech | Jawaharlal Nehru Technological University Kakinada, Andhra Pradesh | VLSI System Design | 15/12/2021 | 2.5 | Assistant Professor | Assistant Professor | | Regular | No | 31/05/2024 | No |
| 44 | L CHANDRA SHEKAR | XXXXXXX08C | M.Tech | Jawaharlal Nehru Technological University Hyderabad | Embedded Systems | 16/03/2021 | 2.2 | Assistant Professor | Assistant Professor | | Regular | No | 10/06/2023 | No |
| 45 | MULAVAGILI SIVAIAH | XXXXXXX51A | M.Tech | Jawaharlal Nehru Technological University Hyderabad | VLSI System Design | 30/07/2021 | 1.11 | Assistant Professor | Assistant Professor | | Regular | No | 15/07/2023 | No |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 46 | Dr NETTEM ADITHYA VALLI | XXXXXXX53Q | Ph.D | GITAM Deemed to be University, Visakhapatnam, Andhra Pradesh | Radar Signal Processing | 01/08/2023 | 1.10 | Associate Professor | Associate Professor | 01/08/2023 | Regular | Yes | | No |
| 47 | TALLAPALLY HARIKA | XXXXXXX56D | M.Tech | Jawaharlal Nehru Technological University Hyderabad | VLSI System Design | 30/07/2021 | 1.11 | Assistant Professor | Assistant Professor | | Regular | No | 27/07/2023 | 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 | 132 | 132 | 132 |
| UG1.C | 132 | 132 | 132 |
| UG1.D | 132 | 132 | 132 |
| **UG1: Electronics & Communication Engineering** | **396** | **396** | **396** |
| DS=Total no. of students in all UG and PG programs in the Department | 396 | 396 | 396 |
| 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=** 396 | **S2=** 396 | **S3=** 396 |
| DF=Total no. of faculty members in the Department | 28 | 27 | 28 |
| 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=** 28 | **F2=** 27 | **F3=** 28 |
| 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= 14.14** | **SFR2= 14.67** | **SFR3= 14.14** |
| Average SFR for 3 years | **SFR= 14.32** | | |

**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) | 6 | 22 | 19.00 | 19.47 |
| 2023-24(CAYm1) | 7 | 20 | 19.00 | 19.74 |
| 2022-23(CAYm2) | 6 | 22 | 19.00 | 19.47 |

**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 | 2.00 | 2.00 | 4.00 | 4.00 | 13.00 | 22.00 |
| 2023-24 | 2.00 | 2.00 | 4.00 | 5.00 | 13.00 | 20.00 |
| 2022-23 | 2.00 | 3.00 | 4.00 | 3.00 | 13.00 | 22.00 |
| Average | RF1=2.00 | AF1=2.33 | RF2=4.00 | AF2=4.00 | RF2=13.00 | AF2=21.33 |

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

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

**(CAYm1)**

| S.No | Name of the Person | Designation | Organization | Name of the Course | No. of hours handled |
|---|---|---|---|---|---|
| 1 | S. Hemanth Kumar | Team Lead | Datapoint IT & Hardware Tech Pvt. Ltd. | Microprocessors and Microcontrollers | 27.00 |
| 2 | K. Anil Kumar | Design Engineer | Datapoint IT & Hardware Tech Pvt. Ltd. | VLSI Design | 27.00 |

**(CAYm2)**

| S.No | Name of the Person | Designation | Organization | Name of the Course | No. of hours handled |
|---|---|---|---|---|---|
| 1 | K. Anil Kumar | Design Engineer | Datapoint IT & Hardware Tech Pvt. Ltd. | VLSI Design | 27.00 |
| 2 | S. Hemanth Kumar | Team Lead | Datapoint IT & Hardware Tech Pvt. Ltd. | Microprocessors and Microcontrollers | 30.00 |

**(CAYm3)**

| S.No | Name of the Person | Designation | Organization | Name of the Course | No. of hours handled |
|---|---|---|---|---|---|
| 1 | Viplav Sangvi | Design Engineer | Modernize Chip Solutions | VLSI Design | 30.00 |
| 2 | S. Hemanth Kumar | Team Lead | Datapoint IT & Hardware Tech Pvt. Ltd. | Microprocessors and Microcontrollers | 22.00 |

**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 | 5 | 5 | 3 |
| 2 | No. of peer reviewed conference papers published | 11 | 13 | 12 |
| 3 | No. of books/book chapters published | 7 | 3 | 2 |

**C7. Sponsored Research Project**

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

**(CAYm1)**

| PI Name | Co-PI names if any | Name of the Dept., where project is sanctioned | Project Title* | Name of the Funding agency | Duration of the project | Amount(Lacs) i.e. 15,25,000=15.25 |
|---|---|---|---|---|---|---|
| Dr. R. Murugesan | Dr. Shoban Mude | Electronics and Communication Engineering | Technology to take off CO2 | MSME | 1 Year | 15.00 |
| | | | | | | Amount received (Rs.):15.00 |

**(CAYm2)**

| PI Name | Co-PI names if any | Name of the Dept., where project is sanctioned | Project Title* | Name of the Funding agency | Duration of the project | Amount(Lacs) i.e. 15,25,000=15.25 |
|---|---|---|---|---|---|---|
| Dr Honey Durga Prasad Tiwari | | Electronics and communication Engineering | Science fair for creating awareness among rural communities of Telangana | SERB | 1 Year | 20.42 |
| Dr. M. Shoban | | Electronics and communication Engineering | Mission Amrit sarovar jaldharohar sanrakshan MAS-JDS | AICTE | 1 Year | 2.00 |
| | | | | | | Amount received (Rs.):22.42 |

**(CAYm3)**

**Total Amount (Lacs) Received for the Past 3 Years: 37.42**

**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. K. Purushotham Prasad | | Electronics and Communication Engineering | Smart Weather Monitoring System using IOT | EFFTRONICS, Vijayawada | 12 months | 3.00 |
| Dr. M. Shoban | | Electronics and Communication Engineering | Design and Implementation of a Non-Invasive Ultrasonic Blood Flow Meter | Verakki Tech Services Private Limited, Hyderabad | 12 Months | 3.00 |
| N. Pavithra | | Electronics and Communication Engineering | Design and Implementation of Ultra Wide Band Mictorstrip Printed Patch Radiator for X band Applications | Atlantic Circuits | 6 Months | 1.50 |
| | | | | | | Amount received (Rs.):7.50 |

**(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. R. Murugesan | | Electronics and Communication Engineering | Smart Battery Health Monitoring system | Atlantic Circuits, Hyderabad | 24 Months | 4.00 |
| M. Jayasri | | Electronics and Communication Engineering | Smart Crowd Surveillance System using UAV Technology | TMI Systems, Bangalore | 12 Months | 1.50 |
| V. Naga Lakshmi | | Electronics and Communication Engineering | IoT-Enabled Surveillance System for Public Safety in Mass Gatherings | Expert Embedded solutions Hyderabad | 12 Months | 1.75 |
| | | | | | | Amount received (Rs.):7.25 |

**(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. R. Murugesan | | Electronics and Communication Engineering | Energy-Efficient FinFET-Based Subthreshold Current-Mode Digital Sensor for Body Temperature Measurement | Ananth Technologies Hyderabad | 12 months | 2.50 |
| Dr. M. Shoban | | Electronics and Communication Engineering | Localized Crop Spraying Using UAV-Based Autonomous Agricultural System | Orbit Technologies Hyderabad | 12 months | 3.00 |
| | | | | | | Amount received (Rs.):5.50 |

**Total amount (Lacs) received for the past 3 years: 20.25**

**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 |
|---|---|---|---|---|---|
| Dr. M. Shoban | IOT based smart Irrigation System using LORA WAN | 12 months | 1.00 | 1.00 | An IoT-based smart irrigation system using LoRaWAN enables efficient water management with long-range, low-power communication |
| | | | Amount received (Rs.): 1.00 | | |

**(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. R. Murugesan | MIMO system performance analysis using Matlab | 12 months | 2.80 | 2.80 | MIMO system performance analysis using MATLAB demonstrates improved data rates and reliability compared to single-antenna systems |
| | | | Amount received (Rs.): 2.80 | | |

**(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. Honey Durga Prasad Tiwari | Battery Health Monitoring system | 12 months | 2.50 | 2.50 | A battery health monitoring system ensures reliable performance by tracking charge, discharge, and overall battery condition |
| | | | Amount received (Rs.): 2.50 | | |

**Total amount (Lacs) received for the past 3 years : 6.30**

# 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 | Analog Circuits Laboratory/Analog Electronics Circuits Lab/Electronic | 3 | 1. Regulated Power Suppliers, 0-30V 2. 20 MHz, Dual Channel Cathode Ray Oscilloscopes. 3. Functions Generators Sine and Square wave | 12 Hours | Ch. Monika | Lab Technician | Diploma |
| 2 | Microwave and Optical Communications Laboratory (MT-206) | 3 | 1. Reflex Klystron Test Bench Setup 2. Gunn Diode Bench Setup 3. Analog Cathode Ray Oscilloscope 4. VSWR | 12 Hours | G. Sai Kiran | Lab Technician | Diploma |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 3 | Basic Simulation Laboratory/Digital Signal Processing Lab/DCN lab (MT- | 1 | 1.Computers 2.Open-Source software like NS-2 or NSG-2.1 and Wire SHARK 3.Simulation software- | 12 Hours | V. Akash | Lab Programmer | B. Tech |
| 4 | Microprocessors & Microcontrollers Lab/(e-CAD) lab/Scripting Language lab | 1 | 1.8086 Microprocessor kits 2. 8051Microcontroller kits 3. 8-bit ADC | 12 Hours | V. Akash | Lab Programmer | B. Tech |
| 5 | Analog and Digital Communications Laboratory/Elements of Electronics and | 3 | 1.Regulated Power Suppliers, 0-30V 2.20 MHz, Dual Channel Cathode Ray Oscilloscopes | 12 Hours | M. Ajay Sai Kumar | Lab Technician | Diploma |
| 6 | Digital logic Design Laboratory/ Digital System Design Lab (MT-218) | 3 | 1.0-5V Regulated Power Supply 2.20 MHz Oscilloscope with Dual Channel 3.Bread board and | 12 Hours | G. Sai Kiran | Lab Technician | Diploma |
| 7 | Electronic Devices and Circuits Lab/IC lab/LDIC lab/LICA lab (MT-219) | 3 | 1.Regulated Power Suppliers, 0-30V 2.20 MHz, Dual Channel Cathode Ray Oscilloscopes | 12 Hours | M. Ajay Sai Kumar | Lab Technician | Diploma |

**D2. Safety Measures in Laboratories**

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

| Sr. No | Laboratory Name | Safety Measures |
|---|---|---|
| 1 | Analog Circuits Laboratory/Analog Electronics Circuits Lab/Electronic Circuit Analysis Lab (MT-205) | Basic Safety Measures: Do's 1. Turn up in neat formal dress code 2. Bring Observation and Record for every Lab Session 3. Read and understand the Procedure how to carry out an experiment before coming to the Lab 4. Turn off the equipment once your experiment is completed 5. Keep your workstation area neat Dont's 1. Don't switch on the Equipment without Permission 2. Do not use the on/off switch to reboot 3. Before leaving the Lab handover the Hardware kits to the Lab In-Charge 4. Do not damage, remove or disconnect any Equipment 5. Do not touch the kits without permission 6. Do not make undue noise in the laboratory 7. Do not use the cell phones in the laboratory Lab Specific Safety Measures: 1. Conduct yourself in a responsible manner at all times in the laboratory 2. Silence must be maintained in the lab at all times 3. CROs, power supplies, and function generators to be handled carefully under staff supervision 4. All components and instruments must be returned after use 5. First-AID kit is available 6. Fire extinguisher is available |
| 2 | Microwave and Optical Communications Laboratory (MT-206) | Basic Safety Measures: Do's 1. Turn up in neat formal dress code 2. Bring Observation and Record for every Lab Session 3. Read and understand the Procedure how to carry out an experiment before coming to the Lab 4. Turn off the equipment once your experiment is completed 5. Keep your workstation area neat Dont's 1. Don't switch on the Equipment without Permission 2. Do not use the on/off switch to reboot 3. Before leaving the Lab handover the Hardware kits to the Lab In-Charge 4. Do not damage, remove or disconnect any Equipment 5. Do not touch the kits without permission 6. Do not make undue noise in the laboratory 7. Do not use the cell phones in the laboratory Lab Specific Safety Measures: 1. Conduct yourself in a responsible manner at all times in the laboratory 2. Silence must be maintained in the lab at all times 3. Students are not allowed to look into open end of a wave- guide or transmitter line 4. Handle microwave benches, VSWR meters, and stabilizers with extreme care; 5. Disconnect wave-guides/cables only under faculty/lab technician supervision 6. First-AID kit is available 7. Fire extinguisher is available |
| 3 | Basic Simulation Laboratory/Digital Signal Processing Lab/DCN lab (MT-210) | Basic Safety Measures: Do's 1. Turn up in neat formal dress code 2. Bring Observation and Record for every Lab Session 3. Read and understand the Procedure how to carry out an experiment before coming to the Lab 4. Turn off the equipment once your experiment is completed 5. Keep your workstation area neat Dont's 1. Don't switch on the Equipment without Permission 2. Do not use the on/off switch to reboot 3. Before leaving the Lab handover the Hardware kits to the Lab In-Charge 4. Do not damage, remove or disconnect any Equipment 5. Do not touch the kits without permission 6. Do not make undue noise in the laboratory 7. Do not use the cell phones in the laboratory Lab Specific Safety Measures: 1. Conduct yourself in a responsible manner at all times in the laboratory 2. Silence must be maintained in the lab at all times 3. Playing of games on computer in the lab is strictly prohibited 4. Users are strictly prohibited from downloading, viewing or distributing any offensive materials (for example pornography, profane language etc.) 5. Users are strictly prohibited from modifying or deleting any important files and install any software or settings in the computer 6. Internet facility is only for educational/study purpose 7. Students are not allowed to use personal Pen Drives, CDs, DVDs etc., in a Computer Lab. Only prescribed official Pen Drives, CDs, DVDs etc. will be used in the Computer Lab to avoid VIRUS in Computers 8. DO NOT leave your personal belongings at the computer the College is not responsible for items left behind 9. Users must turn-off the computer before leaving the lab 10. First-AID kit is available 11. Fire extinguisher is available |

| | | |
|---|---|---|
| 4 | Microprocessors & Microcontrollers Lab/(e-CAD) lab/Scripting Language lab (MT-211) | Basic Safety Measures: Do's 1. Turn up in neat formal dress code 2. Bring Observation and Record for every Lab Session 3. Read and understand the Procedure how to carry out an experiment before coming to the Lab 4. Turn off the equipment once your experiment is completed 5. Keep your workstation area neat Dont's 1. Don't switch on the Equipment without Permission 2. Do not use the on/off switch to reboot 3. Before leaving the Lab handover the Hardware kits to the Lab In-Charge 4. Do not damage, remove or disconnect any Equipment 5. Do not touch the kits without permission 6. Do not make undue noise in the laboratory 7. Do not use the cell phones in the laboratory Lab Specific Safety Measures: 1. Conduct yourself in a responsible manner at all times in the laboratory 2. Silence must be maintained in the lab at all times 3. Playing of games on computer in the lab is strictly prohibited 4. Users are strictly prohibited from downloading, viewing or distributing any offensive materials (for example pornography, profane language etc.) 5. Processor/microcontroller kits to be powered only after faculty verification; VLSI design tools and HDL software to be used under lab staff guidance. 6. Users are strictly prohibited from modifying or deleting any important files and install any software or settings in the computer 7. Internet facility is only for educational/study purpose 8. DO NOT leave your personal belongings at the computer. the College is not responsible for items left behind 9. Before leaving the lab, users must close all programs positively and keep the desktop blank 10. Users must turn-off the computer before leaving the lab 11. First-AID kit is available 12. Fire extinguisher is available |
| 5 | Analog and Digital Communications Laboratory/Elements of Electronics and<br>Communication Engineering (MT-212) | Basic Safety Measures: Do's 1. Turn up in neat formal dress code 2. Bring Observation and Record for every Lab Session 3. Read and understand the Procedure how to carry out an experiment before coming to the Lab 4. Turn off the equipment once your experiment is completed 5. Keep your workstation area neat Dont's 1. Don't switch on the Equipment without Permission 2. Do not use the on/off switch to reboot 3. Before leaving the Lab handover the Hardware kits to the Lab In-Charge 4. Do not damage, remove or disconnect any Equipment 5. Do not touch the kits without permission 6. Do not make undue noise in the laboratory 7. Do not use the cell phones in the laboratory Lab Specific Safety Measures 1. Conduct yourself in a responsible manner at all times in the laboratory 2. Silence must be maintained in the lab at all times 3. Power supply must be switched off before making changes. 4. Breadboards, kits to be wired only as instructed 5. students should test circuits only after verification of connections by faculty/lab staff 6. First-AID kit is available 7. Fire extinguisher is available |
| 6 | Digital logic Design Laboratory/Digital System Design Lab (MT-218) | Basic Safety Measures: Do's 1. Turn up in neat formal dress code 2. Bring Observation and Record for every Lab Session 3. Read and understand the Procedure how to carry out an experiment before coming to the Lab 4. Turn off the equipment once your experiment is completed 5. Keep your workstation area neat Dont's 1. Don't switch on the Equipment without Permission 2. Do not use the on/off switch to reboot 3. Before leaving the Lab handover the Hardware kits to the Lab In-Charge 4. Do not damage, remove or disconnect any Equipment 5. Do not touch the kits without permission 6. Do not make undue noise in the laboratory 7. Do not use the cell phones in the laboratory Lab Specific Safety Measures 1. Conduct yourself in a responsible manner at all times in the laboratory 2. Silence must be maintained in the lab at all times 3. Breadboards, ICs, and logic trainer kits to be wired only as instructed 4. students should test circuits only after verification of connections by faculty/lab staff 5. Power supply must be switched off before making changes. 6. First-AID kit is available 7. Fire extinguisher is available |
| 7 | Electronic Devices and Circuits Lab/IC lab/LDIC lab/LICA lab (MT-219) | Basic Safety Measures: Do's 1. Turn up in neat formal dress code 2. Bring Observation and Record for every Lab Session 3. Read and understand the Procedure how to carry out an experiment before coming to the Lab 4. Turn off the equipment once your experiment is completed 5. Keep your workstation area neat Dont's 1. Don't switch on the Equipment without Permission 2. Do not use the on/off switch to reboot 3. Before leaving the Lab handover the Hardware kits to the Lab In-Charge 4. Do not damage, remove or disconnect any Equipment 5. Do not touch the kits without permission 6. Do not make undue noise in the laboratory 7. Do not use the cell phones in the laboratory Lab Specific Safety Measures 1. Conduct yourself in a responsible manner at all times in the laboratory 2. Silence must be maintained in the lab at all times 3. CROs, function generators, and trainer kits must be handled carefully; 4. students should test circuits only after verification of connections by faculty/lab staff 5. First-AID kit is available 6. Fire extinguisher is available |

**D3. Project Laboratory/Research Laboratory**

**A. Availability of Project Laboratory**

**Description:**

The department has a dedicated Project Laboratory that functions under the R&D cell. The primary objective of this lab is to provide the necessary facilities for research and experimentation in various domains/emerging areas of Electronics and Communication Engineering. It serves as a space for students to brainstorm, discuss, and implement their innovative ideas, whether for mini projects or final year projects. By providing a state-of-the-art environment for experimentation and collaboration, the project laboratory aims to contribute to the advancement of the field and promote academic and commercial success.

**Equipment Details:**

| S.NO | Name of the equipment | Relevance to PO's/PSO's |
|---|---|---|
| 1 | Arduino Uno Kit | PO1, PO2, PO3, PO4, PO5, PO12, PSO1, PSO2 |
| 2 | Raspberry Pi Kit | |
| 3 | Wi-Fi Module (ESP8266) | |
| 4 | Sensors (Temperature, Motion, Gas, etc.) | |
| 5 | Webcam | |
| 6 | PC's | |

**B. Availability of Centre of Excellence**

**Description:**

The Department has established a Centre of Excellence in IoT & Embedded Systems. It is equipped with Arduino, Raspberry Pi kits, IoT sensors, wireless modules, and PCs with open-source software tools such as Arduino IDE, Proteus ISIS, MATLAB, Scilab, Python, CC Studio, MASM etc to enable advanced project and research work. This Centre of Excellence provides a platform for innovation, hackathons, Ignite Project Presentation and industry-oriented mini projects, major projects etc. This facility is designed to foster a culture of research excellence, innovation, and intellectual property protection.

**Equipment Details:**

**Hardware Details**

| S.NO | Name of the equipment | Relevance to PO's/PSO's |
|---|---|---|
| 1 | Arduino Uno Kit | PO1, PO2, PO3, PO4, PO5, PO12, PSO1, PSO2 |
| 2 | Raspberry Pi Kit | |
| 3 | Wi-Fi Module (ESP8266) | |
| 4 | Sensors (Temperature, Motion, Gas, etc.) | |
| 5 | Webcam | |
| 6 | PC's | |

**Software Details**

| S.NO | Name of the software | Relevance to PO-PSO |
|---|---|---|
| 1 | Arduino IDE | PO1, PO2, PO3, PO4, PO5, PO12, PSO1, PSO2 |
| 2 | Proteus ISIS | |
| 3 | MATLAB/ Scilab | |
| 4 | Python | |
| 5 | CC Studio | |
| 6 | MASM | |

**C. Utilization of project laboratories/research laboratory /Centre of excellence**

1. Utilization of Project Laboratory: 6 Hours/Week

2. Utilization of Centre of Excellence Laboratory: 6 Hours/Week

**Outcomes of Project laboratory/Centre of Excellence:**

**Details of the Sample Student Projects**

| CAY (2024-2025) | | | | |
|---|---|---|---|---|
| **S. No** | **Project Title** | **Student Names** | **Supervisor** | **Relevance to PO-PSO** |
| 1 | EYE Controlled Wheelchair System for Physically Challenged People | Mamidi Joshin<br>Manda Maneesha<br>Ramishetti Nagendra Babu<br>Lingapuram Arvind | MRs. G. Bhagya Lakshmi | PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2 |
| 2 | IOT Enabled Garbage Segregation System | Arru Aravind<br>Chokka Shivani<br>Gaddam Sandhya<br>Konderu Vinay | Dr. G. Naga Jyothi Sree | PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2 |
| 3 | Power Management Street Light by Vehicles | Nomula Sravya<br>Namile Sai Teja<br>Putta Raju<br>Yelamarthi Sai Prasanth | Mrs. P. Siva Kalyani | PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2 |
| 4 | Enhanced Fisherman's Safety with Border Alerting system | Jandyam Sai Venkata Vishnu<br>Kasam Said Dinesh<br>Lashetty Ajay<br>Maheswaram Siddartha | Mr. A. Dileep | PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2 |
| CAY m1 (2023-2024) | | | | |

| S. No | Project Title | Student Names | Supervisor | Relevance to PO-PSO |
|---|---|---|---|---|
| 1 | IOT Based Coal Mine System | B Ruchitha<br>G Gayatri<br>P Swathi<br>N Ranavika<br>T Akshitha | Mr. K. Karthik | PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2 |
| 2 | Smart Stick for the Blind | P Charan Sai<br>V Sai Krishna<br>Ch Uma Mahesh<br>K Prasanth | G. Joy Sangeeth Raj | PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2 |
| 3 | Multi-Level Anti-Theft Security System using GSM | M Ajay Sai Kumar<br>A Leela Sai<br>N Raj Sankar Reddy<br>Garapati Yaswanth | A Srinivas | PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2 |
| 4 | Advanced Vehicle Detection and Automatic Penalty Collection using IOT | Sayed Usman<br>B Deeraj Kumar<br>V Rohit Reddy<br>U Varun Kumar | Mrs. N. Pavithra | PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2 |

**CAY m2 (2022-2023)**

| S. No | Project Title | Student Names | Supervisor | Relevance to PO-PSO |
|---|---|---|---|---|
| 1 | IOT Air and Sound Pollution Monitoring System | Khyatham Bhargavi<br>Kothakapu Meghana<br>Pilli Suresh<br>Gandla Prashant Kumar | Mrs. Mothukuri Jayasri | PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2 |
| 2 | Density-Based Traffic Control System using Arduino | Jinukala Gayatri<br>Kyasani Shyam Sundar<br>Vaddula Sai Krishna<br>Mungey Vamsi Krishna Reddy | Mr. Amgoth Srinivas | PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2 |
| 3 | Home Embedded Security System | Dussa Uday Krishna<br>Guttula Ravi Teja<br>Pavani Reddy<br>Lingareddy Gari<br>Mannepally Sai Charan | Dr. Murugesan Raja Manikkam | PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2 |

| | | | | |
|---|---|---|---|---|
| 4 | Text to speech GUI Converter in Python | A Chanada Reddy<br>R Samba Shivudu<br>M Nava Chaintanya Reddy<br>S Surender Krishna | Mr B Raju | PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2 |
| **CAY m3 (2021-2022)** | | | | |
| **S. No** | **Project Title** | **Student Names** | **Supervisor** | **Relevance to PO-PSO** |
| 1 | Fire Detection using Image Processing | Alen Philip<br>Ch Priyanka<br>J Vaishnavi Reddy<br>K raja Ram | Mrs. Dichipalli Yeshasree | PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2 |
| 2 | Liver Disease prediction using Machine Learning | J Meenakshi<br>M Sahithi<br>S Sai Ganesh<br>P Sreedhar | Mrs. V. Naga Lakhsmi | PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2 |
| 3 | Cyber bullying detection using Natural Language Processing | B Chandra Sekhar Reddy<br>Ch Varshini<br>Bolloru Jhansi<br>G Navya | Mrs. Spica Sujeetha | PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2 |
| 4 | Speech Controlled Robot | G Mahesh<br>M Shravya<br>M Divya Raja Rajeswari<br>D Sreeja | Mrs. K. Sujatha | PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12, PSO1, PSO2 |

**Details of Student Publications**

| **CAY (2024-2025)** | | | | | |
|---|---|---|---|---|---|
| **S. No** | **Name of the Author** | **Title of the manuscript** | **Name of the Journal** | **Volume/Issue No/ISSN No** | **Month/Year** |

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|---|---|---|---|---|---|
| 1 | Akula Sushmitha<br>Addu Aakanksha<br>Uppala Srujana<br>Kolcharam Laxmi Narayana<br>Bandari Gunakar Reddy | INTEGRATING GPS AND GSM TECHNOLOGIES FOR ENHANCED WOMENS SAFETY: A FINGERPRINT-ACTIVATED DEVICE APPROACH | Res Militaris | Vol.15, Issue 3, | March, 2025 |
| 2 | Putta Ravi Chandra<br>Anumula Radha Rohini<br>Kairamkonda Jagadish<br>Bekkam Sai Varma<br>Silver Devi Sri Prasad | IOT-DRIVEN PRECISION AGRICULTURE USING COMMUNICATION TECHNOLOGIES FOR CROP QUALITY AND RE AL-TIME ENVIRONMENTAL MONITORING | Res Militaris | Vol.15, Issue 3, | March, 2025 |
| 3 | Konderu Vinay<br>Gaddam Sandhya<br>Chokka Shivani<br>Arru Aravind | IOT BASED SEGREGATION OF GARBAGE | Res Militaris | Vol.15, Issue 3, ISSN 2265-6294 | March, 2025 |
| 4 | Pothuganti Shravya<br>Daripally Tejaswini<br>Kondepati Laxmi Prasanna<br>Nalla Nagendra | AI BASED ACOUSTIC WAVE MONITORING OF RAIL DEFECTS LIKE CRACKS, FRACTURE AND PREDICTION FOR RAIL WEAR, QUALITY ALONG WITH OTHER PARAMETER | Res Militaris | Vol.15, Issue 3, ISSN 2265-6294 | March, 2025 |
| 5 | K Kavya Sree<br>Barkam Sai Teja<br>Morusu Venkat Reddy<br>Kethireddy Vijay Reddy | ATMOSPHERIC POLLUTANTS MEASURING PREVENTING AND UPDATING TO IOT | Res Militaris | Vol.15, Issue 3, ISSN 2265-6294 | March, 2025 |
| 6 | Muthukur Jahnavi<br>Veeranki Prameela<br>Rachuri Harish<br>Myadam Sai Kumar | SECURE AND ENERGY-EFFICIENT SMART HOME AUTOMATION: A USER BASED FINGERPRINT SECURITY SYSTEM | Res Militaris | Vol.15, Issue 3, ISSN 2265-6294 | March, 2025 |
| 7 | Samba Nagesh<br>Vattipally Praneeth<br>Angidi Venkatesh<br>Banala Sampath Reddy | ADVANCED GPS TRACKING AND FOOD DISPENSOR SYSTEM FOR PETS | International Journal of Food and Nutritional Sciences | Volume 14, Issue 04, ISSN 2319 1775 | April, 2025 |
| 8 | Bonangi Sravani<br>Mothe Kalyan<br>Boddu Nagamani<br>Mamidela Naveen Kumar | GUARDIAN AIS FUTURE HOME PROTECTION USING IOT | International Journal of Food and Nutritional Sciences | Volume 14, Issue 04, ISSN 2319 1775 | April, 2025 |
| 9 | Pottabathini Pranavi<br>Nagireddy Ranadheer<br>Ch N V Lokesh<br>Kesamoni Akash Chandra | ADVANCED PUBLIC BUS TRANSPORT MANAGEMENT SYSTEM: AN INNOVATIVE SMART BUS CONCEPT | International Journal of Food and Nutritional Sciences | Volume 14, Issue 04, ISSN 2319 1775 | April, 2025 |

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| 10 | Anupoju Ravi Teja<br>Jakkani Ruchitha<br>Ch N V Rajesh<br>Garimella Rahul | SMART STICK FOR VISUALLY IMPAIRED INDIVIDUALS | International Journal of Food and Nutritional Sciences | Volume 14, Issue 04, ISSN 2319 1775 | April, 2025 |
| 11 | Vadlamani Karthik<br>Bade Sai Jahuli<br>Chillale Akhil<br>Dhake Nikhil | WEARABLE SENSOR WITH ARTIFICIAL INTELLIGENCE FOR PREVENTION OF FALLS IN ELDERLY PEOPLE | International Journal of Food and Nutritional Sciences | Volume 14, Issue 04, ISSN 2319 1775 | April, 2025 |
| 12 | Chakali Naveen Kumar<br>Chaluvadi Gowtham<br>D Mahakali Shankar<br>Karne Sampath Reddy | WIFI BASED SECURED DATA TRANSMISSION AND RECEPTION | International Journal of Food and Nutritional Sciences | Volume 14, Issue 04, ISSN 2319 1775 | April, 2025 |
| 13 | Dasari Jyothi<br>Chakrahari Sai Sri<br>Akkireddy Lakshman Reddy<br>Oleti Geeta Naga Sai | VEHICULAR ACCIDENT DETECTION AND ALERT GENERATION USING IOT | International Journal of Innovative Engineering and Management Research | Volume. 14, Issue 04, ISSN 2456 – 5083 | April, 2025 |
| 14 | D Anil Kumar<br>Kathula Saikumar Reddy<br>G Madhu Kumar<br>Maddi Pavan Kalyan | POT HOLE DETECTION USING RASBERRY PI | International Journal of Innovative Engineering and Management Research | Volume. 14, Issue 04, ISSN 2456 – 5083 | April, 2025 |
| 15 | K Harshavardhan Charry<br>Koppisetti Sateesh Kumar<br>Janala Pavan Kumar<br>Jondhudi Sai Chandrakanth | A MULTIFUNCTIONAL VOICE-CONTROLLED SMART MIRROR FOR HOME AUTOMATION WITH ENHANCED SECURITY | International Journal of Innovative Engineering and Management Research | Volume. 14, Issue 04, ISSN 2456 – 5083 | April, 2025 |
| 16 | Battu Ranjith Reddy<br>Sangati Gurunarendra Reddy<br>Bairi Sanjay Kumar<br>Vandana Harshika Sai Priya | SHIFT A SECURITY HOME INTEGRATION FRAMEWORK FOR IOT | International Journal of Innovative Engineering and Management Research | Volume. 14, Issue 04, ISSN 2456 – 5083 | April, 2025 |
| 17 | V Sai Krishna<br>Thakkalapalli Poojitha<br>Srinivas Reddy Challa<br>Ambeer Akshay | A 360-DEGREE NAVIGATION SYSTEM USING A NOVEL MEAN-BASED ALGORITHM | International Journal of Engineering Research and Science and Technology | Vol.21, Issue 2, ISSN 2319-5991 | April, 2025 |
| 18 | Kalisetty Sandhya<br>Mettu Jhansi<br>P Mallikarjun Reddy<br>Palayam Subramanyam Akash | AN ARDUINO-BASED SYSTEM FOR MEDICATION RESTOCKING | International Journal of Engineering Research and Science and Technology | Vol.21, Issue 2, ISSN 2319-5991 | April, 2025 |

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| 19 | Bonala Akhila<br>Vadla Shyamsundar<br>Kura Sai Vinay<br>Chegondi Vivek Vardhan | FUEL THEFT DETECTION USING AN ARDUINO | International Journal of Engineering Research and Science and Technology | Vol.21, Issue 2, ISSN 2319-5991 | April, 2025 |
| 20 | S Prashanth<br>Bompally Sai Nithya Goud<br>Mohammed Waseem Khan<br>Kandula Naveen Kumar | IMPLEMENTING A CNN AND RASPBERRY PI SYSTEM TO SAFEGUARD CROPS AGAINST ANIMAL THREATS | International Journal of Engineering Research and Science and Technology | Vol.21, Issue 2, ISSN 2319-5991 | April, 2025 |
| 21 | Mangali Sravani<br>L Sushmitha<br>Medi Laxman Goud<br>Gundu Amarendra | INNOVATION OF A POWER SOURCE THAT CAN MONITOR THE SUNS PATH IN ORDER TO MAXIMIZE THE EFFICIENCY OF SOLAR PANELS | International Journal of Engineering Research and Science and Technology | Vol.21, Issue 2, ISSN2319-5991 | April, 2025 |
| 22 | Peddagampala Gongamma<br>Baddam Sarayu<br>Pallapu Naveen Kumar<br>Bellala Nithin | INTELLIGENT TIME TRACKING SYSTEM WITH FACIAL RECOGNITION THROUGH ITS ARDUINO UNO PLATFORM | International Journal of Applied Science Engineering and Management | Vol.19, Issue 2, ISSN 2454 - 9940 | March, 2025 |
| 23 | Bandi Vivek<br>Kothi Rupak<br>Joudi Rahul Reddy<br>Boga Neeraj | AMBULANCE NAVIGATION MADE EASIER WITH FINGERPRINT SENSOR INTEGRATION IN SMART HEALTHCARE EMERGENCY APP BY HIGHLIGHTING CRITICAL ROUTES | International Journal of Applied Science Engineering and Management | Vol.19, Issue 2, ISSN 2454 - 9940 | March, 2025 |
| 24 | Sridhar Reddy Myakala<br>Bomma Vamshi<br>T Rohith Reddy<br>Sriramul Sahith | PRECISION FARMING USING AN INTELLIGENT IRRIGATION SYSTEM | International Journal of Applied Science Engineering and Management | Vol.19, Issue 2, ISSN 2454 - 9940 | March, 2025 |
| 25 | Ailada Srikanya<br>Rachabanti Uday Kiran<br>Boora Premchand<br>Gantyala Jayanth | EXAMINING THE USE OF ARTIFICIAL INTELLIGENCE METHODS IN APPS THAT MAY IDENTIFY DEADLY CAR CRASHES | International Journal of Applied Science Engineering and Management | Vol.19, Issue 2, ISSN 2454 - 9940 | March, 2025 |
| 26 | L Aravindh<br>Mandha Maneesha<br>Mamidi Joshion<br>Ramisetti Nagendrababu | A NEW TECHNOLOGY FOR THE ULTRA-DISABLED: THE EYE-CONTROLLED WHEEL CHAIR | International Journal of Applied Science Engineering and Management | Vol.19, Issue 2, ISSN 2454 - 9940 | March, 2025 |
| 27 | Yelamarthi Sai Prashanth<br>Nomula Shravya<br>Putta Raju<br>Namili Sai Teja | POWER MANAGEMENT STREET LIGHT BY VEHICLES | International Journal of Applied Science Engineering and Management | Vol.19, Issue 2, ISSN 2454 - 9940 | March, 2025 |

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| 28 | Lashetti Ajay<br>Maheswaram Siddartha<br>K Sai Dinesh<br>J Sai Venkata Vishnu | BORDER ALERT SYSTEM: MAXIMIZING SAFETY FOR FISHERMAN | International Journal of Modern Electronics and Communication Engineering | Vol 13, Issue 2, ISSN 2321-2152 | April, 2025 |
| 29 | Maisanola Sneha<br>Arsam Ajay<br>M Shivamani Sharma<br>Annabattuni Harsha Vardhan | UTILIZING THE INTERNET OF THINGS FOR INTELLIGENT CROPS AND NEXT-GENERATION SMART FORMING | International Journal of Modern Electronics and Communication Engineering | Vol 13, Issue 2, ISSN 2321-2152 | April, 2025 |
| 30 | Kakaraparthi Venkata Satya Someswara Rao<br>Saba Fatima<br>Appalabathula Kalyan Chary<br>Jaathikarthi Yugandar | DUMB PERSON SIGN RECOGNITION AND VOICE TRANSLATION SYSTEM | International Journal of Modern Electronics and Communication Engineering | Vol 13, Issue 2, ISSN 2321-2152 | April, 2025 |
| 31 | G Rajeh Goud<br>Nijjani Suresh<br>Mailugonda Pranay<br>B.V. Karthik Reddy | RASPBERRY PI-POWERED FACE DETECTION LIGHT | International Journal of Modern Electronics and Communication Engineering | Vol 13, Issue 2, ISSN 2321-2152 | April, 2025 |
| 32 | Seelam Nagendar Reddy<br>Pagudala Akhil<br>Thummapala Yeshwanth<br>Thippana Nagendar Reddy | THE FIELD OF NATURAL DISASTER MANAGEMENT ENCOMPASSES CONCEPTS SUCH AS RISK MIGRATION AND PRE- AND POST-DISASTER PLANNING | International Journal of Modern Electronics and Communication Engineering | Vol 13, Issue 2, ISSN 2321-2152 | April, 2025 |

**CAY m1 (2023-2024)**

| S. No | Name of the Author | Title of the manuscript | Name of the Journal | Volume / Issue No/ISSN No | Month / Year |
|---|---|---|---|---|---|
| 1 | Srinomula Sai Krishna<br>Akula Yugander<br>Sareddygari Bharath Reddy<br>Satti Uttej | AN IOT APPROACH TO DESIGNING WEARABLE SAFETY DEVICES FOR WOMEN | International Journal of Data Science and IOT Management System | Vol 3, Issue 2, ISSN: 3068-272X | Apr-24 |
| 2 | Mittapally Ajay Saikumaralluri Leela Saig Yashwanth Nune Rajashekharreddy | ELECTRONIC WARFARE IN RADAR SYSTEMS: A COMPARATIVE ANALYSIS OF ECM AND ECCM | International Journal of Data Science and IOT Management System | Vol 3, Issue 2, ISSN: 3068-272X | Apr-24 |

**CAY m2 (2022-2023)**

| S. No | Name of the Author | Title of the manuscript | Name of the Journal | Volume / Issue No/ISSN No | Month / Year |
|---|---|---|---|---|---|
| 1 | Ch Sudarshini<br>K Tejaswi<br>L V N S Vinuthna<br>Ch Saketh Kumar | RESILIENT AND SUSTAINABLE FAULT MANAGEMENT APPROACHES FOR NEXT-GENERATION MEMORY ARCHITECTURES | American Journal of AI Cyber Computing Management | Vol 3, Issue 3, EISSN:3069-0102 | May, 2023 |

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| 2 | B Prashanthi<br>K Kushal Nagendra<br>R Sai Charan<br>Ch Renu | A SCALABLE ACCURACY-CONTROLLABLE APPROXIMATE MULTIPLIER FOR LOW-POWER HIGH-SPEED APPLICATIONS | International Journal of Engineering Research and Science & Technology | Vol 18, Issue 4, ISSN 2319-5991 | November, 2022 |
| **CAY m3 (2021-2022)** | | | | | |
| S. No | Name of the Author | Title of the manuscript | Name of the Journal | Volume / Issue No/ISSN No | Month / Year |
| 1 | B Chandrashekar Reddy<br>Ch Varshini<br>B Jhansi<br>G Navya | INTELLIGENT AGRICULTURE EQUIPMENT MANAGEMENT THROUGH IOT-BASED MONITORING AND CONTROL | Journal of Applied Engineering (JOAE) | Vol 10, Issue 6, ISSSN 2348-4802 | Feb-22 |

**Details of Faculty Publications**

| **CAY (2024-2025)** | | | | | |
|---|---|---|---|---|---|
| S. No | Name of the Author | Title of the manuscript | Name of the Journal | Volume / Issue No/ISSN No | Month / Year |
| 1 | Gorre Naga Jyothi Sree | OPTIMIZATION OF FRACTAL GRAPHENE ANTENNA WITH DUAL SIO2 LAYERS FOR HIGH-PERFORMANCE TERAHERTZ 6G COMMUNICATION | Diamond & Related Materials | 152, 111920, ISSN: 9259635 | February, 2025 |
| 2 | A. Srinivas | INTEGRATED APPROACHES FOR AGRICULTURAL LANDSCAPE MONITORING AND PLANT DISEASE MANAGEMENT | 2024 4th Asian Conference on Innovation in Technology (ASIANCON) | IEEE EXPLORE | January, 2025 |
| 3 | V. Nagalakshmi | AN IOT APPROACH TO DESIGNING WEARABLE SAFETY DEVICES FOR WOMEN | International Journal of Data Science and IOT Management System | Vol 3, Issue 2, ISSN: 3068-272X | July, 2024 |
| 4 | N. Jyothsna | EMBEDDED SYSTEMS AND IOT | Textbook-Scientific International Publishers | ISBN:978-93-6132-358-4 | October, 2024 |
| 5 | K. Karthik | INTEGRATING GPS AND GSM TECHNOLOGIES FOR ENHANCED WOMENS SAFETY: A FINGERPRINT-ACTIVATED DEVICE APPROACH | Res Militaris | Vol.15, Issue 3, ISSN 2265-6294 | March, 2025 |
| 6 | M. Aruna Jyothi | IOT-DRIVEN PRECISION AGRICULTURE USING COMMUNICATION TECHNOLOGIES FOR CROP QUALITY AND RE AL-TIME ENVIRONMENTAL MONITORING | Res Militaris | Vol.15, Issue 3, ISSN 2265-6294 | March, 2025 |

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| 7 | Gorre Naga Jyothi Sree | IOT BASED SEGREGATION OF GARBAGE | Res Militaris | Vol.15, Issue 3, ISSN 2265-6294 | March, 2025 |
| 8 | P. Siva Kalyani | AL BASED ACOUSTIC WAVE MONITORING OF RAIL DEFECTS LIKE CRACKS, FRACTURE AND PREDICTION FOR RAIL WEAR, QUALITY ALONG WITH OTHER PARAMETER | Res Militaris | Vol.15, Issue 3, ISSN 2265-6294 | March, 2025 |
| 9 | Gousiya Begum | ATMOSPHERIC POLLUTANTS MEASURING PREVENTING AND UPDATING TO IOT | Res Militaris | Vol.15, Issue 3, ISSN 2265-6294 | March, 2025 |
| 10 | A. Srinivas | SECURE AND ENERGY-EFFICIENT SMART HOME AUTOMATION: A USER BASED FINGERPRINT SECURITY SYSTEM | Res Militaris | Vol.15, Issue 3, ISSN 2265-6294 | March, 2025 |
| 11 | Y. M. M Veena | ADVANCED GPS TRACKING AND FOOD DISPENSOR SYSTEM FOR PETS | International Journal of Food and Nutritional Sciences | Volume 14, Issue 04, ISSN 2319 1775 | April, 2025 |
| 12 | M. Jayasri | GUARDIAN AIS FUTURE HOME PROTECTION USING IOT | International Journal of Food and Nutritional Sciences | Volume 14, Issue 04, ISSN 2319 1775 | April, 2025 |
| 13 | N. Pavithra | ADVANCED PUBLIC BUS TRANSPORT MANAGEMENT SYSTEM: AN INNOVATIVE SMART BUS CONCEPT | International Journal of Food and Nutritional Sciences | Volume 14, Issue 04, ISSN 2319 1775 | April, 2025 |
| 14 | G. Joy Sangeeth Raj | SMART STICK FOR VISUALLY IMPAIRED INDIVIDUALS | International Journal of Food and Nutritional Sciences | Volume 14, Issue 04, ISSN 2319 1775 | April, 2025 |
| 15 | Dr. M. Shoban | WEARABLE SENSOR WITH ARTIFICIAL INTELLIGENCE FOR PREVENTION OF FALLS IN ELDERLY PEOPLE | International Journal of Food and Nutritional Sciences | Volume 14, Issue 04, ISSN 2319 1775 | April, 2025 |
| 16 | G. Bhagya Lakshmi | WIFI BASED SECURED DATA TRANSMISSION AND RECEPTION | International Journal of Food and Nutritional Sciences | Volume 14, Issue 04, ISSN 2319 1775 | April, 2025 |
| 17 | G. Sujana | VEHICULAR ACCIDENT DETECTION AND ALERT GENERATION USING IOT | International Journal of Innovative Engineering and Management Research | Volume. 14, Issue 04, ISSN 2456 – 5083 | April, 2025 |
| 18 | Dr. V. Purandar Reddy | POT HOLE DETECTION USING RASBERRY PI | International Journal of Innovative Engineering and Management Research | Volume. 14, Issue 04, ISSN 2456 – 5083 | April, 2025 |
| 19 | M. Sridhar Reddy | A MULTIFUNCTIONAL VOICE-CONTROLLED SMART MIRROR FOR HOME AUTOMATION WITH ENHANCED SECURITY | International Journal of Innovative Engineering and Management Research | Volume. 14, Issue 04, ISSN 2456 – 5083 | April, 2025 |

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| 20 | Dr. K. Purushotham Prasad | SHIFT A SECURITY HOME INTEGRATION FRAMEWORK FOR IOT | International Journal of Innovative Engineering and Management Research | Volume. 14, Issue 04, ISSN 2456 – 5083 | April, 2025 |
| 21 | V. Naga Lakshmi | A 360-DEGREE NAVIGATION SYSTEM USING A NOVEL MEAN-BASED ALGORITHM | International Journal of Engineering Research and Science and Technology | Vol.21, Issue 2, ISSN 2319-5991 | April, 2025 |
| 22 | Y. M. M Veena | AN ARDUINO-BASED SYSTEM FOR MEDICATION RESTOCKING | International Journal of Engineering Research and Science and Technology | Vol.21, Issue 2, ISSN 2319-5991 | April, 2025 |
| 23 | M. Jayasri | FUEL THEFT DETECTION USING AN ARDUINO | International Journal of Engineering Research and Science and Technology | Vol.21, Issue 2, ISSN 2319-5991 | April, 2025 |
| 24 | Dr. V. Purandar Reddy | IMPLEMENTING A CNN AND RASPBERRY PI SYSTEM TO SAFEGUARD CROPS AGAINST ANIMAL THREATS | International Journal of Engineering Research and Science and Technology | Vol.21, Issue 2, ISSN 2319-5991 | April, 2025 |
| 25 | Dr. M. Shobhan | INNOVATION OF A POWER SOURCE THAT CAN MONITOR THE SUNS PATH IN ORDER TO MAXIMIZE THE EFFICIENCY OF SOLAR PANELS | International Journal of Engineering Research and Science and Technology | Vol.21, Issue 2, ISSN2319-5991 | April, 2025 |
| 26 | N. Jyothsna | INTELLIGENT TIME TRACKING SYSTEM WITH FACIAL RECOGNITION THROUGH ITS ARDUINO UNO PLATFORM | International Journal of Applied Science Engineering and Management | Vol.19, Issue 2, ISSN 2454 - 9940 | March, 2025 |
| 27 | A. Srinivas | AMBULANCE NAVIGATION MADE EASIER WITH FINGERPRINT SENSOR INTEGRATION IN SMART HEALTHCARE EMERGENCY APP BY HIGHLIGHTING CRITICAL ROUTES | International Journal of Applied Science Engineering and Management | Vol.19, Issue 2, ISSN 2454 - 9940 | March, 2025 |
| 28 | Dr. K. Purushotham Prasad | PRECISION FARMING USING AN INTELLIGENT IRRIGATION SYSTEM | International Journal of Applied Science Engineering and Management | Vol.19, Issue 2, ISSN 2454 - 9940 | March, 2025 |
| 29 | K. Karthik | EXAMINING THE USE OF ARTIFICIAL INTELLIGENCE METHODS IN APPS THAT MAY IDENTIFY DEADLY CAR CRASHES | International Journal of Applied Science Engineering and Management | Vol.19, Issue 2, ISSN 2454 - 9940 | March, 2025 |

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| 30 | G. Bhagya Lakshmi | A NEW TECHNOLOGY FOR THE ULTRA-DISABLED: THE EYE-CONTROLLED WHEEL CHAIR | International Journal of Applied Science Engineering and Management | Vol.19, Issue 2, ISSN 2454 - 9940 | March, 2025 |
| 31 | P. Siva Kalyani | POWER MANAGEMENT STREET LIGHT BY VEHICLES | International Journal of Applied Science Engineering and Management | Vol.19, Issue 2, ISSN 2454 - 9940 | March, 2025 |
| 32 | A. Dileep | BORDER ALERT SYSTEM: MAXIMIZING SAFETY FOR FISHERMAN | International Journal of Modern Electronics and Communication Engineering | Vol 13, Issue 2, ISSN 2321-2152 | April, 2025 |
| 33 | M. Sudhakar | UTILIZING THE INTERNET OF THINGS FOR INTELLIGENT CROPS AND NEXT-GENERATION SMART FORMING | International Journal of Modern Electronics and Communication Engineering | Vol 13, Issue 2, ISSN 2321-2152 | April, 2025 |
| 34 | G. Joy Sangeeth Raj | DUMB PERSON SIGN RECOGNITION AND VOICE TRANSLATION SYSTEM | International Journal of Modern Electronics and Communication Engineering | Vol 13, Issue 2, ISSN 2321-2152 | April, 2025 |
| 35 | B. Raju | RASPBERRY PI-POWERED FACE DETECTION LIGHT | International Journal of Modern Electronics and Communication Engineering | Vol 13, Issue 2, ISSN 2321-2152 | April, 2025 |
| 36 | N. Pavithra | THE FIELD OF NATURAL DISASTER MANAGEMENT ENCOMPASSES CONCEPTS SUCH AS RISK MIGRATION AND PRE- AND POST-DISASTER PLANNING | International Journal of Modern Electronics and Communication Engineering | Vol 13, Issue 2, ISSN 2321-2152 | April, 2025 |
| **CAY m1 (2023-2024)** | | | | | |
| S. No | Name of the Author | Title of the manuscript | Name of the Journal | Volume / Issue No/ISSN No | Month / Year |
| 1 | A. Srinivas | IOT AND SENSOR-BASED TECHNIQUE TO TRACK AND MONITOR THE WORK OF THE STREET SWEEPER | 2023 4th International Conference on Smart Electronics and Communication (ICOSEC) | IEEEXplore | October, 2023 |
| 2 | A. Srinivas | IOT BASED CHILD SAFETY MONITORING SYSTEM USING ARDUINO AND RASBERRY PI | Journal of Non-Linear Analysis and Optimization | VOL.15, Issue 1, ISSN 1906-9685 | March, 2024 |

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| 3 | Dr R Murugesan | COMPARATIVE STUDY OF IMPLEMENTATION OF VERY DEEP SUPER RESOLUTION NEURAL NETWORK AND BICUBIC INTERPOLATION FOR SINGLE IMAGE SUPER RESOLUTION QUALITY ENHANCEMENT | 2023 IEEE 3rd International Conference on Applied Electromagnetics, Signal Processing, & Communication (AESPC) | IEEE Xplore | January, 2024 |
| 4 | N. Pavithra | ELECTRONIC WARFARE IN RADAR SYSTEMS: A COMPARATIVE ANALYSIS OF ECM AND ECCM | International Journal of Data Science and IOT Management System | Vol 3, Issue 2, ISSN: 3068-272X | April, 2024 |
| **CAY m2 (2022-2023)** | | | | | |
| S. No | Name of the Author | Title of the manuscript | Name of the Journal | Volume / Issue No/ISSN No | Month / Year |
| 1 | Dr R Murugesan | INVESTIGATION OF FUZZY AND SOM BASED SEGMENTATION OF HIGH-RESOLUTION SATELLITE IMAGES IN HSL COLOR SPACE FOR INFORMATION RETRIEVAL | 2023 9th International Conference on Advanced Computing and Communication Systems (ICACCS) | IEEE Xplore | May, 2023 |
| 2 | Dr R Murugesan | HSV MODEL BASED SKIN COLOR SEGMENTATION USING UNCOMPLICATED THRESHOLD AND LOGICAL AND OPERATION | 2023 9th International Conference on Advanced Computing and Communication Systems (ICACCS) | IEEE Xplore | May, 2023 |
| 3 | Mrs. G. Spica Sujeetha | PARKINSONS DISEASE DETECTION USING MODIFIED RESNEXT DEEP LEARNING MODEL FROM BRAIN MRI IMAGES | Soft Computing Journal | Vol. 27, Issue 16, ISSN 1433-7479 | May, 2023 |
| 4 | Dr. K. Purushotham Prasad | RESILIENT AND SUSTAINABLE FAULT MANAGEMENT APPROACHES FOR NEXT-GENERATION MEMORY ARCHITECTURES | American Journal of AI Cyber Computing Management | Vol 3, Issue 3, EISSN:3069-0102 | May, 2023 |
| 5 | N. Ramesh Kumar | A SCALABLE ACCURACY-CONTROLLABLE APPROXIMATE MULTIPLIER FOR LOW-POWER HIGH-SPEED APPLICATIONS | International Journal of Engineering Research and Science & Technology | Vol 18, Issue 4, ISSN 2319-5991 | November, 2022 |
| **CAY m3 (2021-2022)** | | | | | |
| S. No | Name of the Author | Title of the manuscript | Name of the Journal | Volume / Issue No/ISSN No | Month / Year |
| 1 | Dr. R. Murugesan | EFFECT OF CO-DIGESTION USING MUNICIPALLY SOLID WASTE WITH FOOD WASTE UNDER MECHANICAL LAB SCALE ANAEROBIC- INTERNATIONAL JOURNAL OF MECHANICAL ENGINEERING | International Journal of Mechanical Engineering | Vol. 7, Issue 2, ISSN 0974 5823 | February, 2022 |

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| 2 | Mrs. G. Spica Sujeetha | A MULTI-OBJECTIVE FUZZY LOGIC BASED MULTI PATH ROUTING ALGORITHM FOR WSNS- MECS | International Journal of Wireless and Microwave Technologies | Vol. 12, Issue 1, ISSN 1759 0787 | February, 2022 |
| 3 | Dr. R. Murugesan | INTELLIGENT AGRICULTURE EQUIPMENT MANAGEMENT THROUGH IOT-BASED MONITORING AND CONTROL | Journal of Applied Engineering (JOAE) | Vol 10, Issue 6, ISSSN 2348-4802 | February, 2022 |

# 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) | 660 | 33 | 34 | 22 | 96 |
| 2023-24(CAYm1) | 900 | 45 | 38 | 30 | 81 |
| 2024-25(CAY) | 1020 | 51 | 36 | 30 | 68 |

**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 | 6800000 | 6713501 | 5600000 | 5594585 | 4100000 | 4024549 | 4200000 | 4165150 |
| Library | 800000 | 798410 | 650000 | 647540 | 550000 | 548550 | 500000 | 464011 |
| Laboratory equipment | 25600000 | 25561900 | 21500000 | 21301583 | 2800000 | 2770426 | 2400000 | 2365111 |
| Teaching and non-teaching staff salary | 220000000 | 219690526 | 195400000 | 195377128 | 172000000 | 171175196 | 165000000 | 162994289 |
| Outreach Programs | 5700000 | 5677190 | 4800000 | 4730992 | 3500000 | 3332808 | 550000 | 540500 |
| R&D | 3500000 | 3496500 | 3000000 | 2997500 | 2500000 | 2498500 | 2000000 | 1998500 |

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|---|---|---|---|---|---|---|---|---|
| Training, Placement and Industry linkage | 6100000 | 6088320 | 5200000 | 5073600 | 4000000 | 3768752 | 450000 | 423395 |
| SDGs | 1200000 | 1123132 | 800000 | 797500 | 600000 | 585500 | 500000 | 449500 |
| Entrepreneurship | 700000 | 674531 | 500000 | 488717 | 400000 | 385500 | 300000 | 286000 |
| JNTUH Affiliation, JNTUH Common Service Fee, | 124640000 | 124528126 | 59610000 | 59331060 | 42748500 | 41586285 | 32584500 | 32101046 |
| **Total** | **395040000** | **394352136** | **297060000** | **296340205** | **233198500** | **230676066** | **208484500** | **205787502** |

**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 | 3500000 | 3499856 | 700000 | 696550 | 500000 | 499550 | 500000 | 493500 |
| Software | 144000 | 143809 | 120000 | 119424 | 32000 | 31895 | 20000 | 19264 |
| SDGs | 300000 | 299559 | 200000 | 199501 | 100000 | 98509 | 50000 | 49850 |
| Support for faculty development | 800000 | 799552 | 700000 | 699505 | 600000 | 598581 | 500000 | 497553 |
| R & D | 500000 | 498576 | 450000 | 449510 | 400000 | 399552 | 350000 | 349500 |
| Industrial Training, Industry expert, Internship | 1500000 | 1499501 | 1300000 | 1298690 | 1200000 | 1199501 | 900000 | 897845 |
| Printng & Stationary, BOS, Internet Charges, Lab | 9256000 | 9157768 | 9030000 | 8944501 | 7768000 | 7728205 | 6680000 | 6487107 |
| **Total** | **16000000** | **15898621** | **12500000** | **12407681** | **10600000** | **10555793** | **9000000** | **8794619** |