



# VNR Vignana Jyothi Institute of Engineering & Technology

Nizampet (S.O.), Pragathi Nagar, Bachupally, Hyderabad

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## B TECH IN ELECTRONICS AND INSTRUMENTATION ENGINEERING



II Year Students Industrial visit to Coco-Cola Beverages Ltd



III year students Industrial visit to Hyderabad Metro Rail



Students listening to Guest Lecture on Product and Test Development in VLSI



Students in Design Robotics Certification Course



Student receiving DVS Raju Endowment gold medal at ISOI meet



Student receiving DVS Raju Endowment gold medal at ISOI meet



Poster Presentation on Redesign your world



Students from different colleges participated in VOLTAIC

## About the Department of Electronics & Instrumentation Engineering

The department has been established with B.Tech in Electronics and Instrumentation Engineering (EIE) during the academic year 1999-2000 with an intake of 60 and has been enhanced to 120 during the academic year 2011-2012. Till now 25 batches of students have successfully graduated from the branch.

Instrumentation engineering is a multi-disciplinary branch focusing on the measurement, control and automation in the fields viz. the Electrical, Electronics, Manufacturing, Process Control, Chemical, Pharmaceutical, Cosmetics, Food Processing, Bio-Medical, Power Generation, etc. Application of modern instrumentation techniques greatly enhances the Productivity, Quality, Reliability of the Products, with improved Stability, Safety and Optimization of Resources. All the major R&D organizations like DRDO, ISRO, BARC, NRSC etc require the services of talented young instrumentation engineers for all their R&D activities involving highly sophisticated instrumentation systems, for all their R&D activities involving highly sophisticated instrumentation systems.

### VISION

To be a Resource Centre of Academic Excellence for imparting Quality Technical Education, meeting the need of students at National and International levels and imbibing Strong Ethical Values, to improve the Standards of the Society

### MISSION

To impart Quality Education in the domain of Electronics and Instrumentation Engineering through effective **Learner-centric Process**.

To provide **Industry-Specific** best-of-the-breed Laboratory Facilities beyond Curriculum, and promote diverse **Collaborative Research** for meeting the changing **Industrial and Societal Needs**.



## Faculty in the Department

| S.No | Employee Name              | Designation       | Specialization                           |
|------|----------------------------|-------------------|--|
| 1.   | Dr.R. Manjula Sri          | Professor & Head  | Biomedical Instrumentation               |
| 2.   | Dr M. Sreedhar             | Professor         | Instrument Technology                    |
| 3.   | Dr K.Vidya Sagar           | Professor         | Instrument Technology                    |
| 4.   | Dr. S. Pranavanand         | Assoc.Professor   | Electronics and Control                  |
| 5.   | Dr.K. Sudha Rani           | Assoc.Professor   | Industrial Process Instrumentation       |
| 6.   | Dr. M. Harikrishna         | Assoc.Professor   | Instrumentation and Control              |
| 7.   | Ms. Anitha Kulkarni        | Assoc.Professor   | Instrumentation and Control              |
| 8.   | Dr. V. Nageshwar           | Assoc.Professor   | Electronics and Instrumentation          |
| 9.   | Dr. C. Kiran               | Assoc.Professor   | Applied Physics                          |
| 10.  | Ms. D.V. Shobana Priscilla | Sr.Asst.Professor | Medical Electronics                      |
| 11.  | Mr. C. Venkata Rambabu     | Sr.Asst.Professor | Embedded Systems                         |
| 12.  | Dr. K. Vijay Chandra       | Asst.Professor    | Digital Systems and Computer Electronics |
| 13.  | Mr. A. Adithya Kashyap     | Asst.Professor    | Industrial Process Instrumentation       |
| 14.  | Mr. S. Nagarjuna Chary     | Asst.Professor    | Process Control and Instrumentation      |
| 15.  | Ms. S. Vandana             | Asst.Professor    | Embedded Systems                         |
| 16.  | Mr. G. Vamsi Krishna       | Asst.Professor    | Instrumentation and Control              |
| 17.  | Ms. S.S.S. Bharati         | Asst.Professor    | Electronics and Instrumentation          |
| 18.  | Dr. N. Akshay              | Asst.Professor    | VLSI Systems                             |
| 19.  | Mr. P.V. Gopi Kumar        | Asst.Professor    | Digital Systems and Computer Electronics |
| 20.  | Ms.J. Jyothirmai           | Asst.Professor    | Embedded Systems                         |
| 21.  | Ms.D. Srilaxmi             | Asst.Professor    | Electronics and Control                  |
| 22.  | Ms.P. Sampurna Lakshmi     | Asst.Professor    | Embedded Systems                         |
| 23.  | Ms.D. Swetha               | Asst.Professor    | Electronics and Instrumentation          |
| 24.  | Mr.S. Bhargav              | Asst.Professor    | Electronics and Instrumentation          |
| 25.  | Dr.B.Raja Shekar Reddy     | Asst.Professor    | Process Control & Instrumentation        |
| 26.  | Dr.S.Senthil Kumar         | Asst.Professor    | Electronics and Instrumentation          |
| 27.  | Mr.Ch.Venkanna             | Asst.Professor    | Electronic Instrumentation               |
| 28.  | Dr.M.N.Reddy               | Adjunct Professor | Fibre Optics & Laser Instrumentation     |

**13 PhDs , 15 pursuing PhDs**

## Faculty Publications in Journals & Conferences

| Year    | Journals | Conferences | Total |
|---------|----------|-------------|-------|
| 2017-18 | 08       | 04          | 12    |
| 2018-19 | 21       | 5           | 26    |
| 2019-20 | 21       | 8           | 29    |
| 2020-21 | 18       | 16          | 34    |
| 2021-22 | 21       | 14          | 35    |
| 2022-23 | 25       | 8           | 33    |
| 2023-24 | 24       | 24          | 48    |

**Citations :1167**

**Highest Citations of Single paper : 179**

### List of R&D Projects Carried Out by The Department, and Research/any Other Grants Sanctioned To The Dept.

| S.No.                               | Title of the R&D Project or Research Grant   | Sanctioning Agency, and Date of Sanction                  | Names of the Principal and Co-Investigators  | Sanctioned Amount Rs. In lakhs | Status of the Project (Completed/ On-going) |
|-------------------------------------|--|---|--|--------------------------------|---|
| <b>R&amp; D Projects Sanctioned</b> |  |   |  |                                |   |
| 1                                   | Identification of Actuator Dynamics and development of Electronic Circuits for Smart Materials actuated insect scale legged Robots | DRDO(CARS),<br>Nov 2022                                   | Dr. B.Rajasekhara Reddy<br>Dr. S.Pranavanand | 9.735                          | Completed                                   |
| 2                                   | Real-time implementation advanced control algorithm(s) on Laboratory scale plant   | TEQIP-III<br>2019   | Dr.B. Rajasekhara Reddy.                     | 2.85                           | Completed                                   |
| 3                                   | RotiBOT  | MSME,<br>Govt. of India,<br>Dec 2015                      | Dr. S.Pranavanand                            | 7.35                           | Completed                                   |
| 4                                   | Weapon Locking System-   | ARDE,<br>July 2014  | Dr. S.Pranavanand                            | 9.9                            | Completed                                   |
| 5                                   | Sensor Measurement Unit  | X_Design Ventures Pvt.Ltd. & VNRVJIET Hyderabad, Mar 2014 | Dr. R.Manjula Sri                            | 6.29                           | Completed                                   |
| 6                                   | Implementation of Biomedical Image Processing on Embedded Hardware   | UGC,<br>Govt. of India,<br>March 2014                     | Dr. R.Manjula Sri                            | 3.00                           | Completed                                   |
| 7                                   | Design and Implementation of Algorithm for Real-Time Patient Monitoring in Ambulance While Transit                                 | UGC ,<br>Govt. of India,<br>March 2014                    | Mr. Naregalkar Akshay Rangnath               | 4.45                           | Completed                                   |

| <b>Other Grants</b> |  |                            |                    |      |           |
|---------------------|--|----------------------------|--------------------|------|-----------|
| 1                   | Design and Structural Evolution of Advanced Functional Materials Suitable for Engineering Applications | AICTE-STTP, September 2020 | Dr.C.Kiran         | 1.92 | Completed |
| 2                   | Applications of Laser Instrumentation (Seminar Grant)  | AICTE 2017                 | Dr. R. Manjula Sri | 1.00 | Completed |

### **Patents Filed/Published/Granted:**

| S.NO | Name of the Faculty   | Title of the Patent work   | Reference number | Date of Filed/ Published / Granted | Status of the Patent |
|------|---|--|------------------|------------------------------------|----------------------|
| 1)   | 1.Dr. S. Pranavanand<br>2.Mr. Haroon Rasheed  | An Apparatus For Making A flat edible food   | 201641028787     | 18/04/2024                         | Granted              |
| 2)   | 1. Ms. Sampurna Lakshmi Paritala<br>2. Dr. Manjula Sri Rayudu<br>3. Dr. Srinivasa Rao Talluri                 | Wi-Fi-Enabled Anti-Theft System with Biometric Authentication In Fuel filling Stations | 202341032074 A   | 23/06/2023                         | Published            |
| 3)   | 1. Mr. S. Nagarjuna Chary<br>2. Dr. K. Vijay Chandra  | IoT-Based RO Water Purifier with Auto TDS Control                                      | 202341032344 A   | 23/06/2023                         | Published            |
| 4)   | 1. Dr. S. Pranavanand<br>2. Dr. B. Rajasekhara Reddy  | Modular Enclosure for Chemical Processing  | 342237-001       | 10/02/2023                         | Granted              |
| 5)   | 1. Dr.D.N.Rao<br>2. Dr.R.Manjula Sri<br>3. Ms.Samatha<br>4. Ms.Manju Sahithi<br>5. Dr.S.Pranavanand           | Drill Cabin for Safe Drive   | 202341003709     | 03/02/2023                         | Published            |
| 6)   | 1. Dr. S. Pranavanand<br>2. Mr. A. Nikhil<br>3. Dr. C.D. Naidu<br>4. Dr. R. Manjula Sri                       | Automatic Airlock Prevention System and Method Thereof                                 | 201841022148     | 30/01/2023                         | Granted              |
| 7)   | 1. Dr.A.Ramesh<br>2. Dr.S.Pranavanand<br>3. Dr.B.Rajasekhara Reddy  | A Non-Invasive Device for Modulus Measurement Of Pavement Layers                       | 353540-001       | 20/01/2023                         | Granted              |
| 8)   | 1. Vallurupalli Nageswara Rao Vignana Jyothi Institute Of Engineering And Technology<br>2. Dr. S. Pranavanand | Cooking Appliance  | 376991-001       | 08/01/2023                         | Granted              |

|     |   |  |               |            |           |
|-----|---|--|---------------|------------|-----------|
|     | 3. Mr. Haroon Rasheed Dr. A. Raghu Ram<br>4. Dr. C. D. Naidu<br>5. Dr. B. Rajasekara Reddy  |  |               |            |           |
| 9)  | 1. Vallurupalli Nageswara Rao Vignana Jyothi Institute Of Engineering<br>2. Dr.S.Pranavanand<br>3. Dr.A.Ramesh<br>4. Dr.C.D.Naidu<br>5. Dr.B.Rajasekhara Reddy<br>6. Mr.Eshwar Chandra Pothineni<br>7. Ms. Manaswini Gogineni | Automatic Water Dispenser  | 369341-001    | 18/08/2022 | Published |
| 10) | 1. Dr. K. Sudha Rani<br>2. Dr. R. Manjula Sri<br>3. Mr. K. Vijay Chandra<br>4. Mr. Naregalkar Akshay  | Motorized Ankle Foot Driven Customized Prosthetic Leg with Exoskeleton | 202141016519A | 08/04/2021 | Published |

### **Social Impact Projects:**

- **Controlling A Human-Wheel Chair Interface System using Electrooculography**
- **The Roti Bot**
- **Patient Assistance & Lift monitoring (PALM)**
- **Solar-Powered Auto Irrigation System**
- **Smart Trash Bin**
- **Arsenic Free Rice Cooker and Fertilizer Free Vegetable Cleanser**
- **Real-Time Monitoring of Hydroponics Using IoT**
- **Optically operated User-assistive Robot for Patients of ALS (OUR PALS)**
- **Robostick to assist Visually Impaired People.**
- **Touchless Hand Sanitizer Dispenser System - SAN MASTER**
- **Spherical Robot**
- **Smart Refrigeration Management System Using IoT**
- **Comparison Study of Mushroom Classification Using Machine Learning and Deep Learning Techniques**
- **Synthesis and Characterization of Nano-silica and it's Effect on the Growth of Peanuts**



### Details of Certification Courses organized during 2017-24

| S. No | Department    | Name of the course                            | No.of Registered Students | No.of students Completed | Semester | Duration in hours |
|-------|---------------|---|---------------------------|--------------------------|----------|-------------------|
| 1     | EIE (2017-18) | Design Thinking                               | 15                        | 15                       | II       | 40                |
| 2     |               | IoT   | 70                        | 70                       | II       | 40                |
| 3     |               | Python  | 68                        | 68                       | II       | 40                |
| 1     | EIE (2018-19) | IoT   | 62                        | 62                       | I        | 40                |
| 1     | EIE (2019-20) | Robotics                                      | 70                        | 70                       | II       | 40                |
| 2     |               | Python  | 64                        | 64                       | II       | 40                |
| 1     | EIE (2020-21) | Robotics                                      | 128                       | 128                      | II       | 40                |
| 2     |               | CLAD  | 134                       | 134                      | II       | 40                |
| 1     | EIE (2021-22) | Edyst Training-Python Programming             | 133                       | 133                      | II       | 40                |
| 2     |               | Front End Technologies                        | 58                        | 58                       | III      | 40                |
| 3     |               | Edyst Training-Data Structures and Algorithms | 33                        | 33                       | III      | 40                |
| 1     | EIE (2022-23) | Verilog Programming-VLSI                      | 128                       | 128                      | I & II   | 40                |
| 2     |               | Problem Solving and Advanced Algorithms       | 128                       | 128                      | I & II   | 40                |
| 1     | EIE (2023-24) | Problem solving and advanced algorithms       | 64                        | 64                       | I        | 70                |
|       |               | Web Technologies                              | 141                       | 141                      | I        | 70                |
|       |               | Verilog Programming-VLSI                      | 50                        | 50                       | II       | 70                |
|       |               | Cyber Security                                | 66                        | 72                       | II       | 70                |

### PROFESSIONAL SOCIETY CHAPTERS & THEIR ACTIVITIES

#### Instruments Society of India (ISOI)

The Society of Instrumentation Professionals was established in the year 1970, with headquarters at the Indian Institute of Science, Bangalore. Today it has six chapters in Delhi, Chennai, Hyderabad, Dehradun, Pune and Cochin. It strives to act as a link between academic institutions and the instrumentation industry, by organizing several programs. It also conducts programs for students and working professionals in the form of short-term courses, symposia, and topical reviews. The objective of the society is to provide a forum for pooling knowledge and experience of individual participants from various professional universities.

ISOI Student Chapter of VNRVJIET was established in the year 2003, 460 student members and 18 faculty members are life members.

### **ISOI Student chapter VNR VJIET**

**Faculty Coordinator :** Mr. V. Nageshwar, Assoc. Prof., EIE Dept.

**Faculty Incharge :** Ms.S.S.S.Bharathi, Asst. Prof., EIE Dept.

### **Regular Events conducted by ISOI**

- Quiz Competitions
- Events to motivate fresher's
- Workshops
- Technical paper presentations
- Guest Lectures
- Project Exhibitions
- Seminars
- CONVERGENCE a national level technical symposium
- Membership Drives
- Filling nominations for various national/state level awards

### **ISOI Student Chapter Activities**

#### **2018-19**

1. Participated in Republic day Parade "SALUTE" on January 26th 2019
2. Orientation Day session for All First Years.
3. Conducted a Guest Lecture on "Cardiovascular Physiology and Instrumentation used in the assessment of Health and Electrophysiology of Heart" by Prof. Mary C. Vagula & Dr. Sudarshan Nelatury, Professor, Gannon University, for III EIE students on 23rd July 2018.
5. Conducted Guest Lecture on "Solar Energy and Its Imporatnce" for II EIE Students by Mr.Vangalapalli Sandeep, Founder and CEO of Arcedo Systems on 15th September 2018.
6. Conducted Guest Lecture on "Instrumentation in Oil & Gas Industries" for III EIE Students by Mr. Yogesh Kumar Bhatnagar, Senior Control & Instrumentation Engineer, at WorleyParsons India Ltd, Singapore on 29th September 2018.
7. Conducted Guest Lecture on "Introduction to IoT and its block chain application" for IV EIE Students by Dr.Manish Jain, Corporate trainer, IFDE Info Tech on 26th December 2018.
8. Conducted Guest Lecture on "Biomedical Signal Processing" for IV EIE Students by Dr.C.B.Rama Rao, Professor, Dept.of.ECE, NIT Warangal on 24th January 2019.

#### **2019-20**

1. Participated in Republic Day Parade "SALUTE" on January 26th, 2020.
2. Orientation Programme for all the 2019 Batch Students about ISOI Chapter and their Activities.
3. Conducted Workshop on AR and VR, Scavenger Hunt Game over in Convergence 2k19.
4. Conducted Guest Lecture on "Virtual Instrumentation" for IV EIE Students by Mr. Ajit Choudhary, Senior Engineer Vision Development, from Optomech Engineers Pvt. Ltd., Hyderabad on 12th July 2019.
5. Conducted Guest Lecture on "Instrumentation Setup for Data Acquisition during Missile Launch" for II EIE Students by Mr. M.Prashanth, Engineer, Advanced System Laboratory, Directorate of Strategic Systems and Instrumentation, DRDO, Hyderabad on 20h July 2019.
6. Conducted Guest Lecture on "CPU Benchmarking" for III EIE Students by Mr. K Rama Krishna Reddy,SMTS Design Engineer, AMD India Pvt Ltd, Bangalore on 31st August 2019.
7. Conducted Guest Lecture on "Robotic Process Automation" for IV EIE Students by Mr. Manjunath Chandrasekhar, Program Manager, Blue prism on 20th December 2019



8. Conducted a Webinar on "Introduction to graphical Programming – LabVIEW" for Faculty, Students and Industry Experts on 25/05/2020 by Dr.S.Pranavanand, Associate Professor,EIE, VNRVJIET.
9. Conducted a Webinar on "Robotics and Automation in Industrialized Building System" for Faculty, Students on 27/05/2020 by Dr.S.Sentil Kumar , Asst. Professor,EIE, VNRVJIET.
10. Conducted a Webinar on "Introduction to Design Thinking" for Faculty, Students and Industry Experts on 29/05/2020 by Dr.C.Kiran Associate Professor,EIE, VNRVJIET.
11. Conducted a Webinar on "Teaching and Understanding of Control Systems using Open Source Software" for Faculty, Students on 13/06/2020 by Dr.B.Rajashekara Reddy, Asst. Professor,EIE, VNRVJIET.
12. Conducted a Webinar on "Factory Automation Using Siemens TIA Portal" for Faculty, Students on 19/06/2020 by Mr.S.Nagarjuna Chary, Asst. Professor,EIE, VNRVJIET.
13. Conducted a Webinar on "Introduction to Patent Writing and Associated Protocol" for Faculty, Students and Industry Experts on 26/06/2020 by Dr.S.Pranavanand, Associate Professor, EIE, VNRVJIET.

### **2020-21**

1. Conducted a Webinar on "Digital Transformation by 5G and IoT" for Faculty, Students, and Industry Experts on 14/07/2020 by Mrs.Anitha Kulkarni Associate Professor, EIE, VNRVJIET.
2. Conducted a Webinar on "Instrumentation in Process Industries" for Faculty, Students, and Industry Experts on 29/07/2020 by Dr. K. VidyaSagar, Professor, EIE, VNRVJIET.
3. Conducted a Webinar on "Image Processing Applications" for Faculty, Students, and Industry Experts on 13/08/2020 by Dr. K. Sudha Rani, Associate Professor, EIE, VNRVJIET.
4. Conducted a Webinar on "Teaching with TEAMS" for Faculty, Students, and Industry Experts on 29/08/2020 by Mr. M. Harikrishna, Associate Professor, EIE, VNRVJIET.
5. Conducted a Webinar on "Bridging Physiology and Biomedical Instrumentation" for Faculty, Students, and Industry Experts on 15/09/2020 by Mrs. D.V.Shobhana Priscilla Sr. Assistant Professor, EIE, VNRVJIET.
6. Conducted a Webinar on "Recent Trends in Signal Processing" for Faculty, Students, and Industry Experts on 30/09/2020 by Mr. C.V. Rambabu, Sr. Assistant Professor, EIE, VNRVJIET.
7. Conducted a Webinar on "MIMO System Controller Design" for Faculty, Students and Industry Experts on 16/10/2020 by Mr.G.Vamshi Krishna Assistant Professor, EIE, VNRVJIET.
8. Conducted a Webinar on "Optrons and their Applications" for Faculty, Students and Industry Experts on 30/10/2020 by Dr. M.Sreedhar, Professor, EIE, VNRVJIET.
9. Conducted Guest Lecture on "Applications of IOT" for III EIE Students by Mr. Bapuji Kanaparthi , CEO, Appleton Innovations, Hyderabad on 30th June 2021.
10. Conducted Guest Lecture on "Control Operations in oil and gas industries" for II EIE Students by Mr. R.V. Saradhi , Engineer, Kuwait Oil Company on 22nd July 2021.
11. Conducted a Panel Discussion on "Wide Spectrum of Career Choices in Electronics and Instrumentation Engineering" for Parents and Students by the Dept. of EIE, VNRVJIET on 31st July 2021.

### **2021-22**

1. Conducted electrifying games on title "VOLTAIC" for students of different colleges and branches on 06/01/2022.
2. Conducted Guest Lecture on "Bio-Inspiration: Nature Inspired Innovation" for III EIE Students by Dr. Venkata Amarnath S., on 11th December 2021.
3. Conducted Poster Presentation on "Redesign Your World" for students of different colleges and branches on 20/11/2021.
4. Conducted Guest Lecture on "Sensors in IOT" for II EIE Students by A.Vinay Kumar, Scientist / Engineer('SD'), ISRO on 30th October 2021.

### **2022-23**

1. Conducted debate Competition on title “Knock Out” for students of different colleges and branches on 09/10/2022.
2. Conducted electrifying games on title “VOLTAIC” for students of different colleges and branches on 29/04/2023.

### 2023-24

1. Conducted two day workshop on “Role of instrumentation in make in India opportunities and challenges” for students of different colleges and branches on 10/07/2023.
2. Conducted hardware Hackathon titled “INNOVATHON “where participants showcase their projects concerning various domains for students of different colleges and branches from 9/10/2023 to 10/10/2023.
3. Conducted training program on LASER 1.0 for the participants to learn how to build various applications where participants showcase their projects concerning various domains for students of different colleges and branches from 20/11/2023 to 23/11/2023

### Guest Lectures Organized in the Department

| S.No | Academic Year | No. of Guest Lectures |
|------|---------------|-----------------------|
| 1    | 2017-18       | 07                    |
| 2    | 2018-19       | 8                     |
| 3    | 2019-20       | 6                     |
| 4    | 2020-21       | 8                     |
| 5    | 2021-22       | 6                     |
| 6    | 2022-23       | 5                     |
| 7    | 2023-24       | 3                     |

| <u>Topic</u>  | <u>Speaker</u>             | <u>Designation</u>  | <u>Date</u> |
|---|----------------------------|---|-------------|
| <b>2017-18</b>  |                            |   |             |
| A Walk-Through on IoT: Architecture, Protocols, Case Studies & Idea-Prototype- Product        | Dr. S.V. Srikanth          | Member of the National Ubiquitous Computing Research Resource Centre                                  | 21-03-2018  |
| Relevance of EI Engineers in Process and Manufacturing Industry                               | Mr. D.Ravindranath         | Former Associate Vice President, Engineering & Project, Vedanta Aluminium limited, Odisha             | 29-01-2018  |
| Process Control Instrumentation   | Mr. Yogesh Kumar Bhatnagar | Senior Control & Instrumentation Engineer, at Worley Parsons India Ltd., Singapore (Hyderabad branch) | 27-01-2018  |
| Applications of pharmaceutical in Instrumentation Engineering and their Environmental Aspects | Mr. Ankit Baheti           | Senior Scientist, Formulation, Dr.Reddy's Laboratory Ltd, Hyderabad.                                  | 18-11-2017  |
| Instrumentation in Oil and Gas Industries   | Mr. R. V. Saradhi          | Instrumentation Expert, Kuwait Oil Company  | 21-08-2017  |
| History and Evolution of Solid State Electronic Devices                                       | Dr. Kaushik Nayak          | Assistant Professor, IIT, Hyderabad.  | 18-08-2017  |

|   |   |  |                               |
|---|---|--|-------------------------------|
| Biomedical Instrumentation  | Prof. Mary C. Vagula                          | Ganon University,Erie,PA   | 29-07-2018                    |
| <b>2018-19</b>  |   |  |                               |
| Cardiovascular Physiology and Instrumentation used in the assessment of Health and Electrophysiology of Heart | Prof. Mary C. Vagula & Dr. Sudarshan Nelatury | Professor from Gannon University   | 23-07-2018.                   |
| Solar Energy and Its Importance   | Mr.Vangalapalli Sandeep                       | (Alumni of VNRVJIET), Founder and CEO of Arcedo Systems  | 15-09-2018                    |
| Instrumentation in Oil & Gas Industries   | Mr. Yogesh Kumar Bhatnagar,                   | Senior Control & Instrumentation Engineer, at WorleyParsons India Ltd, Singapore (Hyderabad branch). | 22-09-2018                    |
| Introduction to IoT and its block chain application   | Dr.Manish Jain                                | Corporate trainer, IFDE Info Tech  | 26-12-2018                    |
| Bio-Medical Instrumentation and Signal Processing   | Dr. C B RAMARAO                               | Professor-ECE , NIT Warangal   | 24-01-2019                    |
| “Scope of Bio-Medical Engineering and the importance of skill training”,                                      | Mr. Harish Krishna,                           | HR Manager-Harvey Bio-Medical, Bangalore.  | 09-03-2019                    |
| “Nano materials for Energy Harvesting Applications”   | Dr.R.Rajesh Kumar                             | Asst.Professor, Dept. of Physics, NIT Warangal   | 15-03-2019                    |
| Motivation towards Higher Studies   | Mr.Meher Abhijith                             | Student(15071A1081) of VNRVJIET Secured 55th rank in GATE-2019                                       | 30-03-2019                    |
| <b>2019-20</b>  |   |  |                               |
| Virtual Instrumentation   | Mr.Ajith choudary                             | Senior Vision development officer, Opto Mech PVT LTD   | 12-07-2019                    |
| Instrumentation in Missile Launch   | M. Prashant                                   | Engineer, Advanced system Laboratory at DRDO.  | 20-07-2019                    |
| Cardiovascular Physiology and Instrumentation used in the assessment of Health and Electrophysiology of Heart | Prof. Mary C. Vagula & Dr. Sudarshan Nelatury | Professor from Gannon University   | 05/08/2019                    |
| “CPU Benchmarking”  | Mr. K Rama Krishna Reddy                      | SMTS Design Engineer, AMD India Pvt Ltd, Bangalore   | 31-08-2019                    |
| Robotic process automation  | Mr. Manjunath chandrasekhar                   | Program Manager<br>Blueprism   | 20-12-2019                    |
| Motivation and Goal Setting   | Mr.K.S.K.Jaya Deva Rao                        | Assistant Manager Training at Globarena Technologies Pvt. Ltd.                                       | 6 <sup>th</sup> January, 2020 |
| <b>2020-21</b>  |   |  |                               |
| Importance of Instrumentation Engineer in Industries  | Mr. Yogesh Kumar Bhatnagar                    | Automation Engineer, Worley Pearson India Ltd  | 19/09/2020                    |
| Automation of Industrial Processes  | Mr. Viswanath Rama Krishna                    | Engineering manager, Eaton corporation   | 14/09/2020                    |
| Nano sensors and Applications   | Mr.L. Srinivasa Rao                           | Assistant Professor, VNRVJIET  | 26/09/2020                    |
| Instrumentation in R&D  | Mr.Chetan Chavan                              | Senior R&D Engineer Medha servo Drives Pvt ltd   | 20/12/2020                    |
| Integration of hardware with LabVIEW  | Mr.Ajit Choudhary                             | Senior Engineer- Vision Development, Optomech Engineers Pvt Ltd                                      | 24/12/2020                    |



|   |                           |  |             |
|---|---------------------------|--|-------------|
| Different Communication Techniques To Transfer Data                           | Ms.Archana K Bhange       | Sr. Assistant Professor, ECE Department, VNRVJIET                      | 30/12/2020  |
| Control Operations in Oil and Gas Industry                                    | Mr. R.V. Saradhi          | Engineer Kuwait Oil Company  | 22/07/2021  |
| Applications of IoT   | Mr. Bapuji Kanapartha     | CEO, Appleton Innovations  | 30/06/2021  |
| <b>2021-22</b>  |                           |  |             |
| Sensors In IoT  | Mr. Ayyagari Vinay Kumar  | Scientist/ Engineer ('SD'),ISRO.                                       | 23/10/2021  |
| Bio-Inspiration: An interdisciplinary approach for nature inspired innovation | Dr.Venkata Amarnath       | Post Doc Fellow and guest researcher at PH,City university of Hongkong | 11/12/2021  |
| ARM Cortex-M3 Exception Programming   | Mr. Mahesh Patil          | Technical Director, CDAC.  | 06/01/2022  |
| Integration of LabVIEW with various platforms                                 | Mr. Ajit Choudhary        | Associate IT Consultant, ITC Infotech India Ltd, Pune.                 | 18/06/ 2022 |
| Product and Test Development  | Mr. Sashank Katta         | Product development Engineer Intel India Pvt Ltd Bangalore             | 25/06/2022  |
| Introduction to Artificial Intelligence                                       | Mr. Kolli Sarath          | CEO Boltzmann and Bayes Labs Bangalore                                 | 02/07/2022  |
| <b>2022-23</b>  |                           |  |             |
| Electric vehicle motion control   | Mr. Ashok kumar Jha       | Engineering Director, ZF Group   | 22/10/2022  |
| Imaging from Space  | Dr. Sudheer Reddy         | Scientist/Engineer, ADRIN, Department of Space                         | 29/10/2022  |
| IoT-Domain Specific Applications  | Dr. S V Srikanth          | Joint Director, CDAC, Hyderabad  | 25/02/2023  |
| Generative AI for Lifesciences  | Mr. Kolli Sarath          | CEO,Boltzmann and Bayes Labs,Bangalore                                 | 17/04/2023  |
| Space Instrumentation and Satellite design                                    | Dr. S.M.Ahmed.            | Principal payload Scientist,XDLINX labs                                | 29/04/2023  |
| <b>2023-24</b>  |                           |  |             |
| Arm Cortex M3 Industry Applications   | Mr. P. Visweswara Rao     | Senior embedded Engineer, Kits cart Innovations                        | 21/12/2023  |
| Trends in VLSI Design Verilog HDL   | Mr. Yasho Nagaraju        | Director, C-DAC Hyderabad  | 23/12/2023  |
| Empowering your growth and Career by Harnessing Drone's and Drone Technology  | Mr.Mehernosh Bazun Dittia | Founder, RPAS Aerial solutions LLP & Light house Training Academy      | 21/02/2024  |

### Industrial Visits:

| # | Academic Year | No of Industrial Visit |
|---|---------------|------------------------|
| 1 | 2017 – 18     | 5                      |
| 2 | 2018 – 19     | 2                      |
| 3 | 2019 – 20     | 3                      |
| 4 | 2022 – 23     | 1                      |

| 2017-18 |   |                |     |             |
|---------|---|----------------|-----|-------------|
| 1       | Signode India Limited,<br>Rudraram Village, Patancheru Mandal, Medak<br>District – 502329 Telangana                                     | Third Year     | 20  | 4-4- 2018   |
| 2       | <u>Hindustan Coca-Cola Beverages Pvt. Ltd,</u><br><u>Ameenpur Unit, Miyapur Industrial Area,</u><br><u>Phase I, Hyderabad – 502032,</u> | Second<br>Year | 140 | 6-4 2018    |
| 3       | Precision Components Corporation<br>Moula Ali, Hederabad, Telangana   | Third Year     | 28  | 06-04-2018  |
| 4       | Clonz Biotech Pvt. Ltd.,<br>Lan No.06, Innovation Corridor I, IKP Knowledge<br>Park, Genome Valley, Turkapally, R.R,Dist, Hyd.          | Third Year     | 48  | 07-04-2018  |
| 5       | Indian National Centre for Ocean Information<br>Services (INCOIS), Pragathi Nagar ,Hyd-90   | First Year     | 120 | 21-04-2018  |
| 2018-19 |   |                |     |             |
| 1       | Mylan Laboratories Limited  | Third Year     | 120 | 25-01-2019  |
| 2       | Hindustan Coca-Cola Beverages   | Second<br>Year | 115 | 29-12-2018  |
| 2019-20 |   |                |     |             |
| 1       | Mylan Laboratories Limited  | Third Year     | 120 | 31-07-2019  |
| 2       | L & T Metro Rail, Hyderabad   | Third Year     | 120 | 11-09- 2019 |
| 3       | Hindustan Coca-Cola Beverages   | Second<br>Year | 120 | 23-09- 2019 |
| 2022-23 |   |                |     |             |
| 1       | L & T Metro Rail, Hyderabad   | Second<br>Year | 120 | 03-12- 2022 |

**Bridge Courses offered in the last five years, for Lateral Entry students**

| Year    | Course name                                      | No. of students attended |
|---------|--|--------------------------|
| 2017-18 | 1.Fourier and Complex Analysis                   | 23                       |
|         | 2.Principles of Electrical Engineering           | 23                       |
| 2018-19 | Fourier and Complex Analysis                     | 23                       |
|         | Principles of elements of Electrical Engineering | 23                       |
| 2019-20 | Fourier and Complex Analysis                     | 12                       |
|         | Principles of Electrical Engineering             | 12                       |
| 2020-21 | Complex Analysis and Special Functions           | 15                       |
|         | Electronic circuits -1                           | 15                       |
|         | Signals and Systems                              | 15                       |
|         | Electronic Measurements                          | 15                       |
|         | Sensors and Signal Conditioning                  | 15                       |
| 2021-22 | Engineering mathematics fundamentals             | 12                       |
|         | Introduction to Electronic Circuits              | 12                       |
|         | Fundamentals of signals and Systems              | 12                       |
|         | Basics of Python Programming                     | 12                       |
|         | English  | 12                       |
| 2022-23 | English  | 12                       |
|         | C & Data Structures                              | 12                       |
| 2023-24 | English  | 13                       |

## PROGRAMS ORGANIZED

### Workshops and FDPs Organized In the Department (EIE)

| Title   | Dates  | No. of participants |
|---|--|---------------------|
| <b>2017-18</b>  |  |                     |
| Brainwave Controlled Robot  | 5 <sup>th</sup> - 6 <sup>th</sup> February, 2018 | 40                  |
| AICTE Sponsored National Seminar on “Recent Trends in Laser Technology and its Applications”  | 29 <sup>th</sup> -30 <sup>th</sup> Nov, 2017     | 75                  |
| Workshop on Wireless Communication using LabVIEW  | 5 <sup>th</sup> January, 2017                    | 51                  |
| <b>2018-19</b>  |  |                     |
| Faculty development programme on Robotics & AI  | 24-06-2019 to 28-06-2019                         | 40                  |
| Short Term Training Programme on MATLAB Programming (Refresher course on MATLAB)  | 17-12-2018 to 20-12-2018, 24-12-2018 26-12-2018. | 30                  |
| Workshop on Technical Paper Writing   | 5-11-2018 to 22-12-2018                          | 27                  |
| Workshop on Scientific and Technical Drafting using LATEX   | 12-06-2019                                       | 27                  |
| Workshop on DSP hands on session  | 27-03-2019 to 28-03-2019                         | 30                  |
| Faculty development programme on Robotics & AI  | 24-06-2019 to 28-06-2019                         | 40                  |
| <b>2019-20</b>  |  |                     |
| Scheme of financial assistance for setting up of electronics and ICT academies” funded by MeitY Gov. of India. Workshop on “3D printing for industrial and biomedical applications” | 02-12-2019 to 06-12-2019                         | 49                  |
| One Day Main Workshop on Arduino  | 08-02-2020                                       | 24                  |
| One Week Workshop on Python for III.B.Tech EIE-I  | 02-12-2019 to 07-12-2019                         | 64                  |
| One Week Workshop on Robotics for III.B.Tech EIE- II  | 02-12-2019 to 07-12-2019                         | 70                  |
| <b>2020-21</b>  |  |                     |
| AICTE-Sponsored 2 week online short term training programme   | 15-02-2021 to 20-02-21 &01-03-21 to 06-03-2021   | 42                  |
| One Week FDP on Social Robotics & AI  | 28-06-21 to 04-07-21                             | 32                  |
| <b>2021-22</b>  |  |                     |
| Gaming contest organized by dept of EIE & ISOI student chapter  | 06-01-22   | 40                  |
| <b>2022-23</b>  |  |                     |
| FDP on Mechanism for quality research publications  | 22-08-22 to 24-08-22                             | 55                  |
| <b>2023-24</b>  |  |                     |
| FDP on Draft-a-thon   | 23-11-23 to 25-11-23                             | 24                  |








## HONOURS & AWARDS:







| <b>Title</b>   | <b>Name of the Awardee</b>                                      | <b>Name of the Awarding Agency with contact details</b>       | <b>Year of Award</b> | <b>Category- Institution/teacher/research scholar/student</b> |
|--|---|---|----------------------|---|
| DVS Raju Endowment Medal                             | G.Bhavana Reddy   | ISOI ,Hyderabad Chapter                                       | 2017-18              | Student   |
| DVS Raju Endowment Medal                             | C.Srichakrapani   | ISOI ,Hyderabad Chapter                                       | 2018-19              | Student   |
| DVS Raju Endowment Medal                             | V.Sameera Prathyusha  | ISOI ,Hyderabad Chapter                                       | 2019-20              | Student   |
| Top Performer  | VSK.Siddhant  | J -Hub Hackathon , Hyderabad                                  | 2019-20              | Student   |
| Campus stars   | K.Likhitha Reddy  | Economic Times  | 2019-20              | Student   |
| Top Performer  | K.Likhitha Reddy  | TiE GRAD BIZZ HACK BOOTCAMP                                   | 2019-20              | Student   |
| Top Performer  | A.Sai Nikitha   | J-Hub Hackathon(2020)   | 2019-20              | Student   |
| Outstanding New Jaycee                               | S.Sriya   | JCI Hyderabad Challengers                                     | 2020-21              | Student   |
| Top performer  | Kasa Likhitha Reddy   | T-Tribe Launchpad Programme, T Hub, Hyderabad                 | 2020-21              | Student   |
| Top performer  | S.Sriya<br>G. Amulya<br>Darshan Kolla<br>Surya<br>TejaCherreddy | “Pitch It to Win It” competition conducted by T-Tribe, T-Hub. | 2020-21              | Student   |
| Silver medal Global Young Scientist Challenge (GYSC) | D Anushka   | India International Innovation & Invention Expo               | 2021-22              | Student   |
| Silver medal Global Young Scientist Challenge (GYSC) | K Anusree   | India International Innovation & Invention Expo               | 2021-22              | Student   |
| Silver medal Global Young Scientist Challenge (GYSC) | Md MaiFooze   | India International Innovation & Invention Expo               | 2021-22              | Student   |
| Bronze medal Global Young Scientist Challenge (GYSC) | Ainesh Gunturu  | India International Innovation & Invention Expo               | 2021-22              | Student   |
| Outstanding Paper Award                              | Sai Bhavana Kudithipudi   | AITA 2021,NIT PATNA   | 2021-22              | Student   |

| Title  | Name of the Awardee   | Name of the Awarding Agency with contact details  | Year of Award | Category- Institution/teacher/research scholar/student |
|--|---|---|---------------|--|
| Outstanding paper award for paper titled "A Method of Cardiovascular Disease Prediction using Machine Learning" during ICRADL 2021 in the track of Applications of Deep Learning | Dr.K. Vidya Sagar   | Department of Computer Science & Engineering, Shri Vishnu Engineering College for Women | 2020-21       | Teacher  |
| Faculty Excellence Award   | Dr. Kiran Chakravarthula  | Ed & ImmiGo, Overseas Education, Immigration & Coaching, A company of CORP2CORP INC/USA | 2021-22       | Teacher  |
| Faculty Excellence Award   | Dr. Nageshwar V   | Ed & ImmiGo, Overseas Education, Immigration & Coaching, A company of CORP2CORP INC/USA | 2021-22       | Teacher  |
| Certificate of Appreciation for her Commendable Contribution as an Academic Administrator  | Dr.R.Manjula Sri  | Malla Reddy Engineering college for Women, Hyderabad                                    | 2021-22       | Teacher  |
| Awarded for Roti maker product in the conference.  | Dr.S.Pranavanand  | Indian institute of Millet research institute   | 2023-24       | Teacher  |
| Awarded gold medal and certificate   | Ms.P.Sampurna Lakshmi, Dr.R.Manjula Sri Mr.S.Bhargav & Ms.S.Vandana | INEX-2023   | 2023-24       | Teacher  |

### STUDENT ACHIEVEMENTS:

| Description Of The Gold Medal  | Donated By   | Medal Being Issued For           | Branch  |
|--------------------------------|--|----------------------------------|---|
| Sri T.Yogaiah Naidu Gold Medal | Sri Uma Maheswar Charitable Trust                        | Best outgoing boy student in EIE | EIE   |
| YEAR                           | Student Name with Hall Ticket Number and Percentage/CGPA |                                  | Photo   |
| 2017-2018                      | PUNNAVAJHULA KALYAN TEJA, 14071A10A4, 8.89 CGPA          |                                  |  |
| 2018-2019                      | C.SRICHAKRAPANI, 15071A1014, 9.53 CGPA                   |                                  |  |
| 2019-2020                      | KONDAPALLI SHANMUKHA SRI SAI, 16071A1086, 9.46           |                                  |  |

|           |   |   |
|-----------|---|---|
| 2020-2021 | VULUGUNDAM SAI KRISHNA SIDDHANT,<br>17071A1056,8.99 |  |
| 2021-2022 | G SAI SRITHIK,18071A1082,9.40                       |  |
| 2022-23   | VAZHAYIL SAI ASWIN, 20075A1015,9.24                 |  |

| Description Of The Gold Medal                    | Donated By  | Medal Being Issued For            | Branch  |
|--|---|-----------------------------------|---|
| Sri Kode Venkatadri Chowdary Memorial Gold Medal | Sri Kode Venkatadri Chowdary Charitable Trust       | Best outgoing girl student in EIE | EIE   |
| YEAR   | Student Name ,Hall Ticket Number ,% of marks        |                                   |   |
| 2017-2018  | GANGULA BHAVANA ,14071A1017 ,9.13 CGPA              |                                   |   |
| 2018-2019  | ACHYUTUNI KANCHANA VALLI,15071A1061,9.44 CGPA       |                                   |  |
| 2019-2020  | VADDAMANI SAMEERA PRATHYUSHA ,16071A10B4 ,9.80 CGPA |                                   |  |
| 2020-2021  | GOGINENI MANASWINI,17071A1078,9.70 CGPA             |                                   |  |
| 2021-2022  | CHITNEEDI TEJASWI, 18071A1075,9.69                  |                                   |  |
| 2022-23  | ARUKALA SAHITHI,19071A1059,9.10                     |                                   |  |



## STUDENT PLACEMENTS & HIGHER EDUCATION:

| Academic Year                                | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 | 2022-23 |
|--|---------|---------|---------|---------|---------|---------|
| Students Progression(Higher Education)       | 7       | 25      | 8       | 20      | 12      | 11*     |
| % of students progressed to higher education | 5       | 19.23   | 6       | 15.38   | 9       | 8*      |

## DEPARTMENT OF EIE PLACEMENT DETAILS

| Year                     | 2017        | 2018         | 2019      | 2020      | 2021      | 2022      | 2023       | 2024       |
|--------------------------|-------------|--------------|-----------|-----------|-----------|-----------|------------|------------|
| No. of students eligible | 98          | 81           | 82        | 97        | 99        | 100       | 87         | 84         |
| No. of students placed   | 78          | 67           | 66        | 91        | 84        | 96        | 80*        | 55*        |
| % of Students got placed | <b>79.5</b> | <b>79.59</b> | <b>81</b> | <b>94</b> | <b>85</b> | <b>96</b> | <b>92*</b> | <b>65*</b> |

## ALUMNI:

- Apart from working with Top MNC, good number of students of the Dept. are pursuing or pursued higher education in the premier institutes in India and Abroad which includes, IIT, NIT Trichy, IIM Kozhikode, University of California Berkley, University of Texas at Dallas, Arizona State University, La Trobe University, Michigan State University etc., and other leading German Universities like Berman University, University of Paderborn etc.,
- A few of our students have become entrepreneurs too

|   |   |   |   |
|---|---|---|---|
|  | <b>N.Suman</b><br><b>Scientist E</b><br><b>DRDO</b><br><b>India</b> | <b>Bala Krishna</b><br><b>Nuthakki</b><br><b>Founder,</b><br><b>Cybernetics</b><br><b>Instrumentation</b><br><b>India</b> |  |
|---|---|---|---|

|   |  |  |   |
|---|--|--|---|
|     | <p><b>Mr.K.Rama Krishna Reddy</b><br/> <b>Engineer</b><br/> <b>AMD</b><br/> <b>India</b></p>   | <p><b>Sandeep Vangapalli</b><br/> <b>Founder,</b><br/> <b>Arcedo Systems</b><br/> <b>India</b></p>   |     |
|    | <p><b>Ravali Tipirneni</b><br/> <b>Test Engineer</b><br/> <b>Maxim Integrated</b><br/> <b>California,US</b></p>  | <p><b>Rajesh Podduturi,</b><br/> <b>Assistant</b><br/> <b>Manager,</b><br/> <b>Indianoil</b><br/> <b>Cooperation</b><br/> <b>India</b></p>   |    |
|   | <p><b>P.Samatha</b><br/> <b>System Engineer</b><br/> <b>Tata Consultancy</b><br/> <b>Services</b><br/> <b>India</b></p>                                | <p><b>K Mohan</b><br/> <b>Principal Cloud</b><br/> <b>Architect,</b><br/> <b>Machine</b><br/> <b>Learning , iRobot</b><br/> <b>Boston,US</b></p>   |   |
|  | <p><b>Mohan Krishna K</b><br/> <b>Software</b><br/> <b>Development</b><br/> <b>Engineer ,Microsoft</b><br/> <b>Washington,US</b></p>                   | <p><b>Jyothi Snigdha B</b><br/> <b>Development</b><br/> <b>Engineer, enfas</b><br/> <b>GmbH</b><br/> <b>Germany</b></p>  |  |
|  | <p><b>Prathyusha Karri</b><br/> <b>SoC Power</b><br/> <b>validation</b><br/> <b>Engineer,Apple</b><br/> <b>California,US</b></p>                       | <p><b>Manasa Veena</b><br/> <b>Chilakapati</b><br/> <b>Design</b><br/> <b>Verification</b><br/> <b>engineer</b><br/> <b>Marvell</b><br/> <b>Technology</b><br/> <b>California,US</b></p> |  |
|  | <p><b>Venigalla Ramana</b><br/> <b>Teja</b><br/> <b>CTO at IBS Global,</b><br/> <b>Innovative Business</b><br/> <b>Solutions</b><br/> <b>India</b></p> | <p><b>Meher Abhijeet</b><br/> <b>Architecture</b><br/> <b>Analyst</b><br/> <b>Accenture</b><br/> <b>Japan</b></p>  |  |

## **BEST PRACTICES:**

- National Instruments ,USA authorized certified Lab-VIEW Associate Developer(CLAD) training and test centre.
- Students compete for the ISOI Gold medals and bagged 9 medals.
- Virtual industry emulated laboratories.
- All the students are members of ISOI student chapter and all the faculty are members/fellows of ISOI/ISTE/IETE/IEEE professional societies.
- Major and Mini Projects taken up by students are real-world problems faced by the industry and society.
- Major Projects are evaluated by industry experts



## Glimpses of our Student Achievements



GSS Amulya, K Darshan Damodar, S.Sreya and Surya Teja in Pitch It to win It.



K.Likhitha Reddy, Winner of "TiE GRAD BIZZ HACK BOOTCAMP"2020



VSK.Siddhant along with the Team has Won First Prize in the J -Hub Hackathon 2019



K.Likhitha Reddy won the title of Campus code star



A.Sai Nikitha, won 1st Prize in Healthcare at J-Hub Hackathon



Bolloji Hasini, Busupalli Karthikeya Reddy, Pothireddy Nishma Reddy & Sharath Kumar Choka Won 1st place in 28-Hour Hackathon



. B.Koushik Won 1<sup>st</sup> Place in 24-Hour Techathon at GITAM University



Shrenita.K at SMIP and Sanjana.T at VMIP in ICAFI MUN