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## Editorial

### Automation-Boon or Bane

Every coin has two sides. So does the enhancement in technology. When one side offers opportunities and confidence, the other plunges its harder truth in the fear of losing existing opportunities along with the white collar jobs. The Indian economy is in transition with the on-going impact of automation on the employment of certain population which are involved in industrial control and services sector. Though automation leads to creation of various new jobs(which are in need of high experience),the destruction of the jobs which are high in number with the present economic situation is even more concerning. Under controlled scenarios automation reduces the cost of a firm, leads to reduced corruption and bureaucratic discretion. It also increases the social economic infrastructural level which in turn attracts high range investments developing the country's national and international standards. Automation becomes a problem when higher number of jobs is at stake. The requirement of new jobs is freelancing at nature thus pressuring abnormal situations among employees. As we can clearly integrate the changes brought by this developing side of technology, let's hope for the right mix of solution to be brought in the varied interests of the economy as a whole.

**VALLURUPALLI NAGESWARA RAO VIGNANA JYOTHI  
INSTITUTE OF ENGINEERING AND TECHNOLOGY**

An Autonomous Institute, NAAC Accredited with A++ Grade  
NBA Accredited for CE, EEE, ME, ECE, CSE, EIE, IT B.Tech Courses

Approved by AICTE, New Delhi, Affiliated to JNTUH

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EAMCET CODE: VJEC

PGECETCODE: VJEC1



### Message from HOD

Factual content and procedures that constitute the knowledge base of the discipline around the big ideas of the domain, links new knowledge to what is already known by presenting concepts in a conceptually and logically sequenced order that builds upon previous learning within and across grade levels. The vision of the department is to be well known department that will serve as a source of knowledge and expertise in the field of Instrumentation for the society by rendering value added education to the students. The department’s mission is to impart dynamic education and develop engineers, technocrats, and researchers to provide services and leadership for development of the nation. To bridge the gap between industry and academia, faculty members connect to industries through i- Connect activities like industrial visits, expert lectures, sponsored projects, workshops, training, MOUs with renowned industries. It provides internship and placement opportunities for students.



**Dr. R. Manjula Sree**  
**HOD: EIE**

### Students Achievements

- Mr.G.Rathan Purnachandra (22071A1087) of II Year EIE student has successfully completed the session on “Entrepreneurship Ecosystem”, Organized by B.V.R Scient and Department of Entrepreneurship Management- IIT Hyderabad from 16th-18th October 2023.

#### Student Association Activities

Name of the student Association	Nature of event Conducted	Dates on which the event was held	Topic	No. Participated
ISOI (Instruments Society of India) and IEEE RAS (Robotics and Automation Society) student chapters	INNOVATHON Hardware Hackathon	9th and 10th October 2023	Robotics and Drones, Renewable Energy, Smart Cities, Environmental Sustainability, Healthcare and Biotech, and Smart Agriculture and more.	100 participants from 36 teams
ISOI and IEEE RAS student chapters	Hardware Training Program	20th Nov to 23rd Dec 2023 (Every Monday & Saturday)	Learning Arduino Systems for Electronics and Responsive - Applications (LASER 1.0)	120 Students of I Year & III Year EIE Students

**Students sponsored for Seminars/Workshops/Training Programmes/Guest Lectures/Motivational Lectures/Career Vision and Awareness Programmes/Sports conducted in the Institute/Outside the Institute**

Particulars of the Event	Beneficiaries	Date	No. of Participants	Impact of Program
NSS Orientation Program	II Year EIE Students	30th November	15 students from both sections	Participated in the event.
International Conference on Information Technologies and Communications (GCITC-2023) by Reva University	III Year Students	02-12-2023	03	Attended and Present paper in the conference
EDU Summit on "Fostering Innovation & Entrepreneurship through Industry-Academic Collaborations", in with association Confederation of Indian Industry (CII) at JNTU, Hyderabad.	III Year Students	07-12-2023	03	Attended Educational summit on Fostering Innovation & Entrepreneurship through Industry-Academic Collaborations
Hardware Training Program is organized on "Learning Arduino Systems for Electronics and Responsive - Applications (LASER 1.0)	1st year EIE Students	20-11-2023 to 23-12-2023 on (every Monday and Saturday)	120 students	Students got awareness on Learning Arduino Systems for Electronics and Responsive - Applications
Guest Lecture on Arm Cortex M3 Industry Applications	III Year Students	21-12-2023	98 students and 2 faculty members	Students got awareness on Arm Cortex M3 Industry Applications and their uses. Cortex-M cores are commonly used as dedicated microcontroller chips, but also are "hidden" inside of SoC chips as power management controllers, I/O controllers, system controllers, touch screen controllers, smart battery controllers, and sensor controllers

Particulars of the Event	Beneficiaries	Date	No. of Participants	Impact of Program
Guest Lecture on Trends in VLSI Design and VERILOG HDL	II Year Students	23-12-2023	100 students and 3 faculty members	HDLs are used to describe, simulate, and create hardware electronic circuits. VHDL, Verilog, and System Verilog are the most popular HDLs in use. VHDL is a self-explanatory HDL, Verilog is somewhat like C language, with similar syntax, and System Verilog is the most advanced HDL.

### Students Certification Courses

Title of Certificate Course	Pre-requisite	Benefits	Targeted students	Dates & Duration of the Course (no. of days)	Course Fee Rs.	No of Participants to whom certificate issued
IoT with embedded Systems	Fundamentals of digital electronics	For the benefit of Placements	137	14th Nov 2023 to 18th Nov 2023	1678/- per student	120

### Students Awards

Name of the Student	Dept.	Awards / Participated
Manjunadh Kasam	EIE	Awarded NPTEL Python Certification (92%) Elite Gold top 2%
N.Pratyusha,	EIE	has secured First place in the event "WOW", Conducted by VNVJIE T's, in National Annual Technical Symposium Convergence 2K23
D.Bhargav	EIE	has secured First Place in the event "Budget Sessions", Conducted by VNVJIE T's, in National Annual Technical Symposium Convergence 2K23. During 14th-15th December 2023
Golla Ravi Chandra	EIE	has secured Second Place in the event "Kurukshetram lo ravana Samharam", Conducted by

		VNVJIET's, in National Annual Technical Symposium Convergence 2K23. During 14th-15th December 2023
Nagandla Pratyusha	EIE	2023 IEEE Global Conference on Information Technologies and Communications (GCITC)
Naga Sai Surya Tej Yedla	EIE	2023 IEEE Global Conference on Information Technologies and Communications (GCITC)

### Students Internship Details:

S.No	Name	Roll No./Phone No.	Name of the Company
1	Sreemaee Akshathala	20071A1002	IEEE Computational Intelligence Society (CIS) Summer School on "Artificial Intelligence and Machine Learning for Engineering and Social Science Research"
2	K Vineela	20071A1031	Helpy Moto

### Students Placement

S.No	Name	Roll.NO	Company
1	G Sanjana	20071A1023	Keyence
2	Korlepara Bruhathi	20071A1092	Aveva
3	Lakshmi pravanjitha	20071A1088	Aveva

## Events Organized

- Department of Electronics and Instrumentation Engineering (EIE) in collaboration with the ISOI (Instruments Society of India) and IEEE RAS (Robotics and Automation Society) student chapters organized Hardware Hackathon on "INNO-VA-THON", from 9th and 10th Oct 2023. At PEB Block Training Room, VNRVJIET, Hyderabad. 100 participants from 36 teams

**"Failure will never overtake us if our determination to succeed is strong enough."**  
**- Mahatma Gandhi**



- One Week workshop/Certification course is organized for II Year Students on “Internet of Things (IoT) and Embedded Systems”, by KITS CART INNOVATIONS, Ameerpet, Hyderabad during 14th -18th Nov 2023.



- Hardware Training Program is organized by Team ISOI and IEEE RAS student chapters of VNRVJIET on “LASER 1.0”, for I Year students by III Year EIE Students from 20th Nov to 23rd Dec 2023 on (every Monday and Saturday).

**VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY**

**ISOI** **IEEE Robotics & Automation Society**

Dept. of EIE in Association with ISOI and IEEE-RAS Student Chapters Organizes

**A Hardware Training Program**

**LASER**

Register Here

**Learning Arduino Systems for Electronics and Responsive - Applications**

\*\*\* ONLY FOR 1ST YEARS \*\*\*

Date: 20-11-2023 to 23-12-2023

Venue: C-205, B-Block

Time: 2pm to 5pm

Registration Fees

Non ISOI and IEEE Members	600/-
ISOI and IEEE Members	200/-

Faculty Coordinators:

Dr. V. Nageshwar - +91 9985 5039 33  
 Mrs. Bharathi Reddy - +91 9443 7811 37  
 Dr. N. Akshay - +91 9678 3543 33

Student Coordinators:

Ch. Kishan Kumar  
 Ch. Kishan Prasad  
 Ch. Kishan Akshith  
 Ch. Kishan Akshith  
 Ch. Kishan Akshith  
 Ch. Kishan Akshith

Social Media

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 Website: www.vnrvti.ac.in



- Parent Teacher meeting organized for I Year EIE students.40 students parent attended for the meeting on 18th Nov 2023 in the department Library



- Organized workshop for faculty members on Research Paper Drafting - “Draft-a-thon”, by the Department of EIE from 23rd-25th November 2023 in NI Academy Lab from 5:00PM onwards.



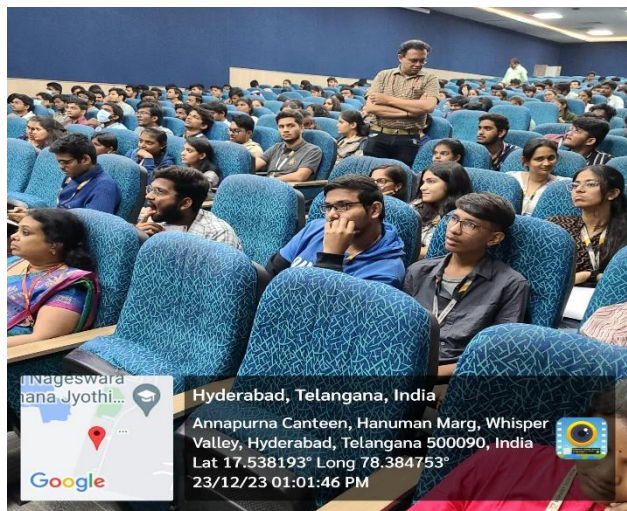
- Parent Teacher meeting organized for II Year EIE students.32 students parent attended for the meeting on 25th Nov 2023 in Room No: A-213 (PCI Lab).



- Guest Lecture is organized for III Year EIE Students on “Arm Cortex M3 Industry Applications”, by Mr.P.Visweswara Rao, Senior Embedded Engineer, Kits Cart Innovations, Hyderabad, in APJ Abdul Kalam Auditorium, VNRVJIET on 21st Dec 2023 from 11:00AM to 1:00PM and 2:00PM to 4:00PM.



- Guest Lecture is organized for II Year EIE Students on “Trends in VLSI Design and VERILOG HDL”, by Mr.Yasho Nagaraju, Joint Director, CDAC, Hyderabad, in APJ Abdul Kalam Auditorium, VNRVJIET on 23rd Dec 2023 from 11:00AM to 12:30PM.





## Faculty Participation

- Dr. R. Manjula Sri, Professor & Head, given a talk on “Building AI for India”, at Swetcha Foundation, ECE Seminar Hall, JNTUH.on 12th October 2023.
- Dr. R. Manjula Sri, Professor & Head, attended Dr Kalams Legacy Hackathon organized by T-Works, Hyderabad from 12th -15th October 2023.
- Dr. R. Manjula Sri, Professor & Head attended Tech talent conclave at India Tech Talent Conclave 2023 organized by Woxen Uni-T-hub, Hyderabad. On 12th October 2023
- Dr. Chakravarthula Kiran, Assoc. Professor, attended a workshop on BVR SCIENT Foundation Week at IIT-Hyderabad on 17th October 2023.
- Dr. R. Manjula Sri, Professor & Head attended Faculty Development Program on “Designing, Development and Delivering”, online/ Blended Learning courses at Vignana Jyothi Institute of Management (VJIM), campus, Hyderabad during 20th-21st October 2023.
- Dr. V. Nageshwar, Assoc.Professor, attended Two Day online Workshop on "Modular PLC: MELSEC iQ-R Training" organized by CVR College of Engineering - Authorized Training Center for Mitsubishi Electric – Hyderabad during 26 & 27 Oct 2023.
- Dr. Chakravarthula Kiran, Assoc. Professor, attended conference on “ISBACON '23”, organized by Mumbai Indian STEP and Business Incubator Association from 26th-28th October 2023.
- D.Srilaxmi, Asst.Professor, attending 21 Days Master class online Faculty Development Program on “Deep Learning”, organized by Pantech e-Learning from 28.09.23 to 18.10.23.
- Dr. Chakravarthula Kiran, Assoc. Professor, attended Incubation Partnership Event on Launch of BUILD organized by IIT-Hyderabad’s iTIC Incubator & Greenko on 31st October 2023.
- Mr.N.Akshay, Asst.Professor, attended International Conference on Sustainable Communication Networks and Application ICSCNA 2023 (online mode) at Theni, India during 15-17, November 2023.
- Ms.D.Srilaxmi, Asst.Professor, attended and presented paper in International Conference on Sustainable Communication Networks and Application ICSCNA 2023 (online mode) at Theni, India during 15-17, November 2023.
- Dr.V. Nageshwar, Assoc.Professor, attended paper in 2nd International Conference on Futuristic Technologies (INCOFT) 2023 (online mode) at Belgavi, Karnataka during 24th & 25th November 2023.

- Mr,A,Adithya Kashap, Asst.Professor, Attended and presented paper in 3rd International Conference on New Frontiers in Chemical, Energy and Environmental Engineering (INCEEE-2023) organized by Department of Chemical Engineering, NIT, Warangal during 24th-25th November 2023.
- Dr. Chakravarthula Kiran, Assoc.Professor, Attended, Monthly Incubator Meet at Draper Startup House at G Dr.V.Nageshwar, Assoc.Professor, Attended and presented paper titled “Review of Cardio Pulmonary Exercise Tests on Athletes using Sensor Technologies”, at Global Conference on Information Technologies and Communications (GCITC-2023) by Reva University during 1st & 2nd Dec 2023.
- Dr.C.Kiran, Assoc.Professor, went to attend Monthly Incubator Meet at Draper Startup House, as the Manager of VJ Hub on 02nd Dec 2023.
- Dr. K. Vijay Chandra, Asst.Professor and 3 students from III year EIE went to attend EDU Summit on “Fostering Innovation & Entrepreneurship through Industry-Academic Collaborations”, in with association Confederation of Indian Industry (CII) at JNTU Hyderabad on 07th Dec 2023.
- The following faculty members were attended seminar on “Importance of Quality Publications”, by Dr. Abhishek Appaji, Head R&D, BMS College of Engineering, Bengaluru organized by IQAC, VNRVJIET Hyderabad on 14th Dec 2023.
  - Dr.M.Sreedhar Professor
  - Ms.Anitha Kulkarni Assoc.Professor
  - Mr.C.V.Ram Babu Sr.Asst.Professor
  - Mr.G.Vamsi Krishna Asst.Professor
  - Ms.D.Srilaxmi Asst.Professor
  - Ms.D.Swetha Asst. Professor
  - Mr.S.Bhargav Asst. Professor
  - Mr.Ch.Venkanna Asst. Professor
- Mr.Ch.Venkanna, Asst.Professor attended seminar on “Growth of Technical Teachers”, Prof. Sydulu Maheswarapu, Retired Professor, Electrical Department, NIT Warangal & Adjunct Professor, Dept of EEE, VNR VJIET, organized by IQAC, VNRVJIET Hyderabad on 14th Dec 2023.
- Mr.Ch.Venkanna, Asst.Professor, attended One Week Faculty Development Program (online mode) on Machine Learning Essentials : Applications and Use Cases organized by CVR College of Engineering, Hyderabad from 18th Dec to 22nd Dec 2023.

### Faculty Achievements

- Dr. N.Akshay, Asst.Profesor, EIE has successfully completed Ph.D on 24-10-2023 from VIT, Chennai.
- Dr.S.Pranavanand Assoc.Professor, Received award on Roti maker product in the conference by Indian institute of Millet research institute on 28th Nov 2023.



- Dr.R.Manjula Sri, Ms.S.Vandana Ms.P.Sampurna Lakshmi & Mr.S.Bhragav Asst.Professor, receive gold medal and certificate awarded for the Innovation in “Wearable device for monitoring knee implants post surgery during physiotherapy”, at INEX : Indian International Innovation and Invention Expo 2023.



- Dr.K.Sudha Rani, Assoc.Professor and Ms.Vaihnavi Satish Ms.Nagandla Pratyusha, Ms.P.Ramya and Mr.M.Charan students of EIE, receive Bronze Medal and certificate awarded for the Innovation in “Customised Blind stick for Object Detection and Classification”, at INEX : Indian International Innovation and Invention Expo 2023



### Research and Development (R & D)

#### Journals

Faculty Name, Designation & Department	List of Authors in the order that appears on the paper	Full Title of the Paper	Conference in which the Paper Published	Volume Issue, Page Nos.	Date/ Month & Year of Publication	ISSN No. / ISBN No.	Indexed
Ms.D.Srilaxmi, Asst.Professor	Dasari, Srilaxmi., Poonguzhali, B., Rayudu, M.S.	Prediction Of Diabetic Retinopathy Using Weighted Fusion Deep Learning Model	Journal of Advanced Zoology	pp. 392-404	29th October 2023	0253-7214	Scopus

#### Conferences/Book chapter/Lecture Notes

Faculty Name, Designation & Department	List of Authors in the order that appears on the paper	Full title of the paper	Conference in which the paper published	Volume Issue, Page Nos.	Date/ Month & Year of publication
Dr.R.Manjula Sri, Professor & Head	Manjula Sri Rayudu, Lakshmikala Pampana,S halini Myneni, Sruthi kalavari	Rice Grain Classification for Agricultural Products Marketing- A Deep Learning Approach	First International Conference on Advances in Electrical, Electronics and Computational Intelligence (ICAEECI 2023)	----	19th October 2023
Ms. D. Srilaxmi Asst.Professor	Dasari, Srilaxmi., Poonguzhali, B., Rayudu, M.S.	“Transfer Learning Approach for Classification of Diabetic Retinopathy using Fine-Tuned Resnet 50 Deep learning Model”,	International Conference on Sustainable Communication Networks and Application (ICSCNA 2023).	---	15-17, November 2023
Dr.Rajasekhara Reddy Assistant Professor	B. Rajasekhara Reddy, S. Pranvanand, Naregalkar Akshay	Intelligent Control System for Solar Power Complementing with Grid Power	International Conference on sustainable communication networks and application (ICSCNA 2023)	---	15th to 17th Nov 2023
Mr.A.Adithya Kashyap Asst.Professor	A.Adithya, G.Uday Bhaskar, A.Seshagiri Rao	Maximum Sensitivity based Fractional Filter IMC PID controller for	3rd International Conference on New Frontiers in Chemical, Energy and Environmental Engineering (INCEEE-2023)	----	24th & 25th November 2023

		SOPTD Processes in Smith Predictor Configuration			
Dr.V.Nageshwar Associate Professor	V.Nageshwar, NagandlabPratyusha, Yedla Naga Sai Surya Tej, Piska Ramyasri	Review of Cardio Pulmonary Exercise Tests on Athletes using Sensor Technologies	2023 Global Conference on Information Technologies and Communications (GCITC)	----	1st – 3rd Dec 2023
Dr. Naregalkar Akshay Rangnath, Assistant Professor	Naregalkar Akshay Rangnath, B. Veda Reddy, Ch. Gowri Saranya, D.Kula Karthik	PLC Operated Pick and Place Robotic Arm with a Low-Cost Interface in a SCADA System	Second International Conference on Automation, Computing and Renewable Systems (ICACRS- 2023)	979-8-3503- 4022-8	11th – 13th Dec 2023
Dr.K. Sudha Rani Associate Professor	M. Venkata Sai Prasad, A.Sumalatha, K Sudha Rani, M. Nicy, D. Charan Babu Ch. Meenakshi	IoT based smart poultry management system	3rd International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems (ICSES 2023)	----	14th& 15th Dec 2023
Dr.S.Pranavanand Associate Professor	Dr.S.Pranavanand	Adaptive Bicycle : A Novel approach To Design a Renewable and Energy Efficient Electric Bicycle with manual charging	International Conference on Renewable Energy, Green Computing & Sustainable Development (ICREGCSD 2023)	----	22nd & 23rd Dec 2023
Dr.S.Senthil kumar Assistant Professor	Dr.Senthil Kumar Selvaraj, Mr.Pranay Kumar Lukka, Ms.Kusuma Meka, Ms.Ashwitha Ummareddy	Analysis of Autonomous Micro Drone using VREP	National Conference on Communication Technologies (NCCT) 2023	---	29th Dec 2023
Dr.S.Senthil kumar Assistant Professor	Dr.Senthilkumar Selvaraj, Mr.C.Avaneesh Ketan, Ms.Vadlamudi Haaswitha	Accident Preventing System using wireless Technology	National Conference on Communication Technologies (NCCT) 2023	---	29th Dec 2023
Dr.K.Vidya Sagar Professor	A. Bhujangarao, K. Vidyasagar, B. Surya Prasad Rao, and G. Suryaprakash	Design of a Corn Seed Sowing Machine for Uniform Distribution of Corn Seeds Using Optimum Seed Distribution Algorithm	Springer	978-3-031- 09955-7	Dec 2023