



# VIDYA JYOTHI INSTITUTE OF TECHNOLOGY

# VIDHYULLATHA

# ELECTRICAL AND ELECTRONICS ENGINEERING DEPARTMENT NEWS LETTER

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#### **Principal's Desk**

It is my privilege to share a few words for the VJIT EEE Newsletter. Since its inception, VJIT has been steadfast in its commitment to providing quality education to both undergraduate and postgraduate students. I am proud to say that our efforts have been met with significant success. However, we firmly believe there is always scope for growth and innovation. We are far from complacent and remain dedicated to continually enhancing the educational experience at VJIT.

I extend my heartfelt congratulations to all faculty members for their unwavering efforts to refine their teaching methods and skills. Your relentless pursuit of excellence is instrumental in shaping the future of our students and upholding the institution's legacy of academic brilliance.

#### Patron's Message



An institution serves as the vital bridge connecting individuals to their professional aspirations, and Vidya Jyothi Institute of Technology (VJIT) exemplifies this mission. For over twenty five years, VJIT has stood as a formidable platform, fostering technical excellence and shaping the future of countless innovators and leaders.

Recognizing that technical expertise alone is not sufficient, the institution places equal emphasis on equipping students with essential life skills. These competencies empower them to navigate challenges seamlessly, balancing the demands of professional growth with personal well-being.

As we unveil another enriching edition of our newsletter, I extend my heartfelt congratulations to the editorial team and all the faculty members whose dedication fuels the success of our academic endeavors.

Editor: The Department of Electrical and Electronics Engineering (EEE) was established in 1999 with an initial intake of 40 students in the undergraduate program. Over the years, the intake has progressively increased to 120, reflecting the department's growth and popularity. In line with the evolving academic and industrial demands, the department introduced a Postgraduate program in Power Electronics and Electrical Drives in the academic year 2011-12, followed by the Electrical Power Systems program in 2013.

The department is equipped with state-of-the-art infrastructure to support high-quality education and research. It boasts spacious, well-established laboratories, a dedicated departmental library, and a unique Model Room. The Model Room serves as a cornerstone for fostering research-oriented, project-based learning, enabling students to engage in innovative and practical problem-solving activities.

The department is supported by a team of highly qualified and experienced faculty members committed to delivering industry-relevant education. This robust foundation is further strengthened by modern teaching methodologies and facilities that align with contemporary industry standards, ensuring students are well-prepared to meet the challenges of the global power sector.

We take pride in our vibrant IEI Student Chapter, with nearly 100 active members from the department. This platform promotes professional development and industry interaction among students. To keep pace with technological advancements, the department organizes regular seminars, workshops, and technical symposia that benefit both faculty and students. These initiatives foster an environment of continuous learning and keep participants updated on the latest developments in the field of electrical engineering.

Our undergraduate and postgraduate programs are designed to nurture competent professionals with a strong technical foundation, capable of addressing the dynamic challenges of the power and energy sectors.

#### **Editor Board**

#### **Editor**

Dr.A.Srujana,HOD,EEE

#### Editor in Chief

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- 2.Mr.B.Rajesh, Asst. Prof, EEE

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- 6.Mr.N.Sanjeev,Student,Student,IV~EEE
- 4.Mr.P.Adithya,Student,III-EEE
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- 2.Mr.A.Saikumar,IV~EEE
- 3.Mr.M.Praveen Kumar, Student, IV-EEE
- 4.Mr.S.Thrisha,Student,III~EEE
- 5.Mr.R.Sanjana, Student, III-EEE 6.Ms.B.Srujana, Student, II-EEE
- 7.Mr.D.Siri,Student,II~EEE

#### Content Team

- 1.Mr.S.Rakesh Kumar, Student, IV-EEE
- 2.Mr.V.Sai Shiva, Student, IV-EEE
- 3.Mr.P.Varsha,Student,III~EEE
- 4.Ms.V.Kishore,Student,III-EEE 5.Mr.M.Jyotsna,Student,II-EEE
- 6.Ms.D.Akhil,Student,II~EEE

#### VISION OF THE INSTITUTION

- ❖ To develop into a reputed Institution at National and International level in Engineering, Technology and Management by generation and dissemination of knowledge through intellectual, cultural and ethical efforts with human values
- ❖ To foster Scientific Temper in promoting the World class professional and technical expertise

#### MISSION OF THE INSTITUTION

- To create state-of-the-art infrastructural facilities for optimization of knowledge acquisition
- ❖ To nurture the students holistically and make them competent to excel in the global scenario
- To promote R&D and Consultancy through strong Industry Institute Interaction to address the societal problems

#### VISION OF THE DEPARTMENT

To become a reputed department in the impartation of professional and technical expertise in the field of Electrical and Electronics Engineering.



#### MISSION OF THE DEPARTMENT

M1: Imparting Quality Technical Education by provision of state-of-the-art learning facilities.

M2: Preparing the students to think innovatively and find effective solutions to address engineering and societal problems with a multi-disciplinary approach maintaining continuous industry interaction.

M3: Encouraging team work and preparing the students for lifelong learning with ethical responsibility for a successful professional career.

#### PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

PEO1: Equip graduates with a sound foundation in mathematics, science and engineering fundamentals, necessary to build a protective career

PEO2: Graduates will excel in giving solutions to real time problems through technical expertise and operational skill set in the field of Electrical Engineering

PEO3: Graduates will act with integrity in catering the need based requirements blended with ethics and professionalism.

### **MESSAGE FROM HOD DESK**

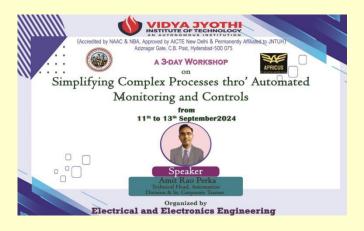
It gives me great pleasure to address you through this edition of Vidyullatha, our department's newsletter. Electrical and Electronics Engineering lies at the core of technological progress, driving advancements in energy systems, automation, and sustainability. Our department is committed to fostering academic excellence, nurturing creativity, and inspiring students to engage with emerging trends in this dynamic field.

This year, we have made significant strides in bridging the gap between academics and real-world challenges through workshops, technical sessions, and industry collaborations. Our students have excelled in project-based learning, contributing to innovative solutions in areas like renewable energy and power systems. Faculty members have also demonstrated excellence through impactful research and publications.

This newsletter highlights our journey, achievements, and aspirations, reflecting our dedication to innovation and growth. Let us continue to work together to illuminate a brighter, sustainable future in the field of electrical engineering.

# PHOTO GALLERY

#### WORKSHOPS



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Brochure of the Workshop





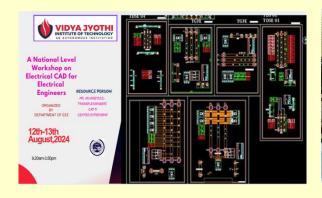
Rangareddy, Telangana, India
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Welcome Address by HOD, EEE

Hands on Practice by students

Department of Electrical and Electronics Engineering conducted a 3-Days Workshop on Simplifying Complex Processes thro' Automated Monitoring and Controls in association with IPCS Global Solutions Pvt. Ltd., Hyderabad, from 11<sup>th</sup>(Wednesday) to 13<sup>th</sup> (Friday), September ,2024 for IV year, B.Tech. (EEE) students.

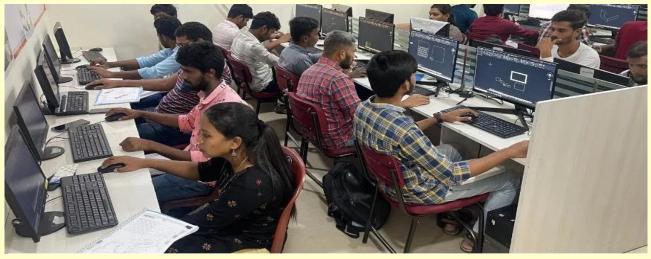
The Workshop is inaugurated by Dr. A. Srujana, Professor and Head (EEE), VJIT, Dr. A. Padmaja, Dean Accreditations and Rankings, VJIT, Mr. Amit Rao Perka, Technical Head, Automation Division & EEE), Corporate Trainer, IPCS and Dr.C.N.Ravi, Professor(EEE), VJIT, in C-Block, 2 nd Floor Auditorium by lighting the lamp with divine prayer. Inaugural session anchored by Mrs. V. Vijayalakshmi, Inaugural address is delivered by Head of the Department, Need of the workshop is addressed by Dean, Outcome of theworkshop explained by Mr. Amit Rao Perka, and session end with the vote of thanks given by Dr. C. N. Ravi.





Workshop Banner

Hands on Practice by Students



Hands on Practice by Students

The Department of Electrical and Electronics Engineering organized a National Level Workshop on Electrical CAD for Electrical Engineers on 12th and 13th August 2024. The workshop was designed for third-year students and participants from other colleges, focusing on enhancing their skills in Electrical CAD tools and applications. Expert trainers provided hands-on sessions, enabling students to design, analyze, and simulate electrical systems effectively. The event received an enthusiastic response, fostering technical proficiency and collaboration among attendees. This initiative aimed to bridge the gap between academic learning and practical industry requirements, empowering students for future challenges.

#### **GUEST LECTURE**





A guest lecture on Career Paths in Electrical Engineering and Renewable Energy was conducted on 5th August 2024 for the final-year students. The session provided valuable insights into emerging opportunities in renewable energy, power systems, and advanced technologies in the electrical domain. The speaker emphasized the importance of skill development, innovation, and industry readiness to excel in this dynamic field. Students actively participated, gaining clarity on career prospects and the evolving demands of the energy sector. The lecture inspired attendees to explore sustainable solutions and pursue impactful roles in their professional journeys.

#### INDUSTRIAL VISIT





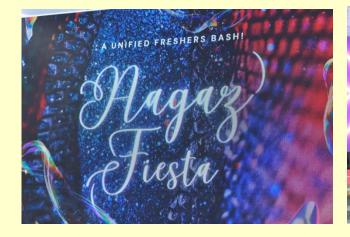
On 4<sup>th</sup> November 2024, the Department of Electrical and Electronics Engineering organized an industrial visit to Bharat Heavy Electricals Limited (BHEL) for final-year students. The visit provided students with hands-on exposure to the manufacturing processes of transformers, turbines, and other electrical equipment. Experts at BHEL conducted interactive sessions, explaining power generation, equipment design, and

industrial automation. Students gained practical insights into the workings of one of India's leading engineering organizations, bridging theoretical knowledge with real-world applications. The visit was an inspiring experience, highlighting career opportunities and advancements in the power sector.

#### FACULTY DEVELOPMENT PROGRAM

S.No	Title of the FDP	Event Date	No. of participants
1	Cyber Security Challenges, Detection and Mitigation Techniques for Smart Grids	22-07-2024 to 24- 07-2024	32
2	Two day FDP on Harnessing Renewable Energy Sources through Innovative Strategies for Effective Implementation	10-09-2024 to 12- 09-2024	30

#### FRESHER's DAY









Freshers' Day 2024, held on October 4<sup>th</sup>, 2024 was a vibrant and memorable celebration organized by the senior students to welcome the first-year batch. The event was filled with joy and enthusiasm, featuring engaging activities, cultural performances, that helped break the ice between the juniors and seniors. It successfully fostered a sense of belonging and camaraderie among all attendees, marking a delightful start to the academic journey for the freshers.

#### **GRADUATION DAY**







The Graduation Day for the 2020-2024 batch students was organized on 6<sup>th</sup> July 2024, marking a significant milestone in their academic journey. The event was a celebration of their hard work, perseverance, and accomplishments over the past four years. Dressed in traditional robes and caps, the graduates received their certificates amidst cheers and applause from faculty, friends, and family. Inspiring speeches by dignitaries and faculty members added to the significance of the occasion, motivating the students to excel in their future endeavors. The day concluded with joyful moments, capturing memories to cherish for a lifetime.

#### **ALUMNI MEET AT DALLAS**





A.Sampath and G.Lokesh of 2012-2016 batch of EEE attended Alumni Meet at Dallas, USA



The Alumni Meet of VJIT was held on June 15<sup>th</sup>, 2024, in Dallas, USA, bringing together alumni from various departments residing in the USA. The event was hosted by Dr. P. Rajeshwar Reddy. It served as a platform for rekindling connections, sharing experiences, and celebrating the achievements of VJIT's global community.

#### PLACEMENTS ACHIEVERS DAY











Placements Achievers Day is organized on June 29th, 2024.12 companies HRs were invited as a part of Achievers day.

## BEST MINI PROJECTS

Roll.No	Name of the Student	Title of the Mini Project	Project Guide	
21911A0203	Bandameedi Nithin	Smart helmet for		
21911A0209	Golla Raghavendra	protection in high	Dr.C.N.Ravi	
21911A0207	C Rithin	voltages and gas		
21911A0229	Pothraj Rithika	leakage areas		
21911A0214	Khatri Vijay Singh	Gas level		
21911A0216	K Praveen Sagar	monitoring and	Dr A Smione	
21911A0224	Mohammad Huzair Ahmed	Detection using	Dr.A.Srujana	
22915A0205	Gadham Revathi	IOT		
22915A0201	Saikumar Amaravadi	RFID based main	Mrs. V.Vijaya Lakshmi	
22915A0221	Y Nalini Kanth	switch with over		
22915A0204	Chenigarapu Srinitha	load alarm		
21911A0210	G Pushpasree	ioau aiaiiii		
22915A0206	Kurukuntla Gyaneshwar			
21911A0207	Lingampalli Akhila	Designing of Voice	Mr.Hussain Shaik	
21911A0211	Podugu Vignesh	to Text tool		
22915A0215	Sayyad Shabana			
22915A0209	Metikoti Manikanta Manoj	IOT based		
22915A0210	Palsi Yogesh	Transformer health	Mr.D.Srinivas	
22915A0214	Sapa Rakesh Kumar	monitoring		
22915A0218	Varkala Abhay Kumar	monitoring		





#### **ACHIEVEMENTS**

#### **Department Achievements:**

- ➤ Department of Electrical and Electronics Engineering is Accredited by NBA 2022 TIER-I and previously it was accredited TIER-II in 2018 and 2010.
- ➤ Department is recognized as R&D Centre by JNTUH.
- > Department has subscriptions for the latest technology updates for Peer reviewed reputed e-Journals such IEEE, DELNET.
- Department has MoU with industries to get placement internships and students projects. Some of the industries are HIEE ,HITT,Balaji Electrical and Engineering Works,Interleaved Multidisciplinary Ressearch Centre,Sunseas Tech,Abhijith Solar Energy Pvt Ltd Hyderabad,IPCS Global Solution Pvt.Ltd,Saitronix Electro Pvt.Ltd,Skyy Skill Academy.

#### **Faculty Achievements**

- Mr.B.Rajesh was conferred as executive in PG program in Data Science by IIIT, Banglore.
- Mr.Ch.Vikram was awarded NPTEL-Gold for the course NBA Outcome Based Education(July-October,2024)
- Mr.A.Mohandas ,Assistant Professor ,EEE was awarded NPTEL Elite Silver for the course Digital Circuits(July-October,2024)
- Mrs.K.Swapna,Mr.L.Raju,Mrs.K.Haritha were awarded NPTEL Elite Silver for the course Introduction to Internet of Things(July-October,2024)
- ➤ Dr.C.N.Ravi and(July-October,2024) Mr.K.Satish Kumar completed the NPTEL Course on NBA Outcome Based Education(July-October,2024)
- Mr.B.Sudhakar Reddy completed the NPTEL course on Programming in JAVA(July-October, 2024)
- ➤ 11 faculty from EEE completed "Design of Electrical and Electronics for Solar and Wind" course from NITTTR, Chennai (5<sup>th</sup> to 9<sup>th</sup> August ,2024)
- ➤ Dr.C.N.Ravi completed "Outcome based Accreditation and NBA" course from NITTTR, Kolkata (5<sup>th</sup> to 9<sup>th</sup> August ,2024)

#### **Student Achievements:**

- A team of III EEE ResponderX, V.Kishore,Y Abhishek,M.Vineeth,P.Varsha,M.Divya received appreciation from the JURY at SIH-2024 @AMITY UNIVERSITY CHATTISGARH conducted from 11<sup>th</sup> to 12<sup>th</sup> December,2024.
- ➤ Ch.Saiteja of 2020-2024 batch got selected for PG program offered by L&T underthe sccheme Build India Scholarship of worth 5lakhs.
- M.Shashidhar Reddy of I EEE was the winner in Volley ball at Sports Bout 12.O conducted at Anurag University from 29<sup>th</sup> to 30<sup>th</sup> November ,2024
- A.Chandra shekhar and U Srivek Siddhardha of I EEE were the Runners in Basket ball at Sports Bout 12.O conducted at Anurag University from 29<sup>th</sup> to 30<sup>th</sup> November ,2024.
- M.Shashidhar Reddy of I EEE was the winner in Volley ball at Ekalavya 2024 conducted at MGIT Hyderabad from 22<sup>nd</sup> to 24<sup>th</sup> November ,2024
- M.Shashidhar Reddy of I EEE was the winner in Volley ball at 16<sup>th</sup> Indian Open Inter Engineering Collegiate Sports Fest conducted at VNRVJIET, Hyderabad from 19<sup>th</sup> to 21<sup>st</sup> November ,2024
- ➤ K.Manik Rao from II EEE won Kabbadi Men at National Level Inter Engineering sports fest AURA'24 from 14<sup>th</sup>-16<sup>th</sup> November, 2024 conducted at Chaitanya Bharathi Institute of Technology, Gandipet.
- M.Shashidhar Reddy of I EEE was the Runner in Volley ball at Tejas 2k24 conducted at Vardhaman College of Engineering, Hyderabad from 28<sup>th</sup> to 30<sup>st</sup> October ,2024
- A.Chandra shekhar and U Srivek Siddhardha of I EEE were the Runners in Basket ball at Aswatthama 24 conducted at Srinidhi College of Enginering from 18<sup>th</sup> to 20<sup>th</sup> November ,2024
- A.Chandra shekhar and U Srivek Siddhardha of I EEE were the Runners in Basket ball at Fiesta 24 conducted at Marri Laxman Reddy Institute Technology from 27<sup>th</sup> -28<sup>th</sup> September,2024.
- ➤ K.Manik Rao from II EEE were Runner ups in Kabaddi Men at Sports FIESTA,2024 conducted at Marri Laxman Reddy Institute Technology from 27<sup>th</sup> -28<sup>th</sup> September ,2024
- A.Chandra shekhar and U Srivek Siddhardha of I EEE were the Winners in Basket ball at Sports Fest conducted at Gurukulam International School on 20<sup>th</sup> September,2024.
- R.Umesh of IV EEE won Table tennis doubles in Athlema 2k24 conducted at MVSR from 8<sup>th</sup> to 9<sup>th</sup> August ,2024
- R.Umesh of IV EEE was the Runners in Table tennis singles in Athlema 2k24 conducted at MVSR from 8th to 9th August ,2024
- ➤ R.Umesh of IV EEE was the Winners in Cricket at Ekalavya 2024 conducted at MGIT from 22<sup>nd</sup> to 23<sup>rd</sup> November ,2024
- R.Umesh of IV EEE was the Winner in Table Tennis doubles at Sports Bout 12.O conducted at Anurag University from 29<sup>th</sup> to 30<sup>th</sup> November ,2024
- ➤ R.Umesh of IV EEE was the Winner in Cricket at Sports Bout 12.O conducted at Anurag University from 29<sup>th</sup> to 30<sup>th</sup> November ,2024





#### Appreciation received by III EEE Students in Smart India Hackathon -2024







K.Manik Rao of II EEE won various trophies in Kabbadi at various colleges

## RESEARCH & DEVELOPMENT

S.N o	Name of the Author(s)	Title of the Paper (Domain)	Name of the Journal	Month and Year of publication	ISSN/DOI
1	Dr. A. Srujana Mr.B. Rajesh Dr.C. N. Ravi	Electrical Energy Prediction using ARIMA Model (AI & DS in EE)	Journal of Technology	October 2024	ISSN: 10123407 Volume 12 Issue 10, 2024, Page: No:822-830

			power		
2	Dr.C. N. Ravi	Introduction to Renewable energy sources and bulk power systems (RES)	systems operation with 100% Renewable energy sources	October 2024	Pages 1-13. Science Direct.
3	Mr. P. Nageswara Rao S. Chaitanya K. Rajeev	A Renewable Energy System Equipped With An Electric Spring Governed By Fuzzy Control \(RES)	IEEE 4th International	August 2024	DOI: 10.1109/SEFET61574.2024.1 0718202
4	Mr. P. Nageswara Rao T. Parameshwar Mr. Ch. Vikram	renewable energy sources with an Electric Spring	IEEE 4th International Conference on Sustainable Energy and Future Electric Transportatio n	August 2024	DOI: 10.1109/SEFET61574.2024.1 0718095
5	Mr. Hussain shaik	Automatic Generation Control system. (PE in PS)	International Conference on Emerging Techniques in Computationa 1 Intelligence (ICETC	September	DOI: 10.1109/ICETCI62771.2024. 10704175
6	Mr. B Sudhakar Reddy Mr.B. Rajesh	Design and Implementation of an Automated Water Dispensing Robot for High- Traffic Dining Environments (AI & DS in EE)	Journal of Technology	October 2024	ISSN: 10123407 Volume 12 Issue 10, 2024, Page: No:868-873

		Doubly Fed Induction	T		
7	Tummeti Parameshwar	Generator based Wind Energy Conversion System of PI and Fuzzy Logic Controller (RES)	Indian Journal of Natural Sciences	Aug / 2024	Vol.15 / Issue 85 / ISSN: 0976 - 0997
8	Tummeti Parameshwar	ANFIS-based optimization for achieving the maximum torque per ampere in induction motor drive with conventional PI  (AI & DS in EE)	International Journal of Applied Power Engineering (IJAPE)	June 2024	DOI: 10.11591/ijape.v13.i2.pp320 -327
9	Mr M	Optimization Techniques for Hybrid AC-DC Grid (PE in PS)	Era arisa a assista a	August 2024	ISSN (Online): 2348-4098 ISSN (Print): 2395-4752

# **MOU's with Department of Electrical and Electronics Engineering**

MOUs exist with the following core companies and training institutions. The facilities available with the industry are utilized by students

S. No	Name of the MoU	Outcome
1	Hyderabad Institute of Electrical Engineers (HIEE).	Internship, Training & Students Project
2	HIIT-Power Transformer manufacturing Internship, Training & Students Project	Internship, Training & Students Project
3	Balaji Electrical and Engineering works.	Internship, Training & Students Project
4	Sun seas tech	Consultancy, Students training, Collaborative Projects
5	Interleaved Multidisciplinary Research Centre	Internship, Training & Students Project
6	Abhijith Solar Energy Pvt Limite	Internship, Training & Students Project
7	Saitronix Electro Pvt Limited	Internship, Training & Students Project
8	Skyy Skill Academy	Internship, Training & Students Project
9	IPCS Global Solution Pvt. Ltd.,	Internship, Training & Students Project

#### **Innovative teaching Methods**



#### **Simulation:**

Subject:Smart Grids Faculty:Mr.M.Vijay Kumar

The objective of simulating a microgrid is to analyze, design, and optimize the performance of a microgrid system under various operational conditions. Microgrid simulations aim to provide a virtual environment for testing and validating system behavior, ensuring reliability, efficiency, and sustainability



Think-Pair-Share:

Subject: Measurements and Instrumentation Faculty:Mr.B.Sudhakar ReddyT.Parameshwar The Think-Pair-Share (TPS) method is an interactive teaching approach that promotes engagement and deeper understanding through individual reflection, collaborative discussion, and group sharing



➤ G.Revathi and Krithi Nanda Keerthana of IV EEE are selected as Intern Electronics at Eon Space Labs



