VIDYA JYOTHI INSTITUTE OF TECHNOLOGY

VIDHYULLATHA

ELECTRICAL AND ELECTRONICS ENGINEERING DEPARTMENT

NEWS LETTER

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Principal's Desk

I am glad to open down a few words for the VJIT EEE Newsletter. Since the inception of VJIT, we are striving hard and I can proudly say that we are quite successful in providing quality education to the students of under-graduate and post-graduate courses. But there is always room for improvement and we are not complacent with what we have achieved so far. We resolve and re-dedicate ourselves in embarking upon imparting the quality education at VJIT.

I congratulate all the faculty members on their incessantendeavors to improvise their teaching techniques and skills in pursuit of achieving excellence.

Patron'sMessage

An institution bridges the gap between an individual and a professional. Vidya Jyothi institute of Technology is no exception to this. We stand high as a twenty four year old platform on which many technical excellences of all times nurtured their future. Besides, the institution is cognizant of the fact that students will achieve more in life with the Acquisition of basic life skills. What is important is that these life skills will help them to handle the challenges with ease in their professional and personal lives.

On this occasion of release of yet another issue, I wish to congratulate the newsletter team and all the staff members.

Editor:

EEE Dept is established in the year 1999, with an intake of 40 in UG program. Subsequently the intake increased to 120 gradually. The Post Graduation program of Power Electronics & Electrical Drives started during 2011-12 followed by the Electrical Power Systems program in 2013. The department has got its own library and spacious and well established laboratories. It has got a unique Model room which is the life time of EEE Dept to import research oriented project based learning for all the students.

It has the necessary infrastructural facilities required for imparting high quality education and the department is fully structured to meet the contemporary needs of the industry. Imparting high quality education is supported by well qualified with which experience in the field.

I am very happy to share that about 100 students of EEE department have registered in IEI student chapter.

Seminars, Workshops and Technical Symposia are conducted in the department regularly to keep the faculty and students updated with latest developments in various technologies. The students in the department are moulded into competent electrical engineering professionals to face the challenges of the POWER sector. Thus the EEE Dept is developing enviously by leaps and bounds.

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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 immense pleasure to address you through this edition of *Vidyullatha*, our department's newsletter. Electrical and Electronics Engineering is at the heart of technological innovation, driving advancements in energy systems, automation, and sustainable development. Our department remains committed to fostering academic excellence, nurturing creativity, and inspiring students to explore emerging trends in this dynamic field.

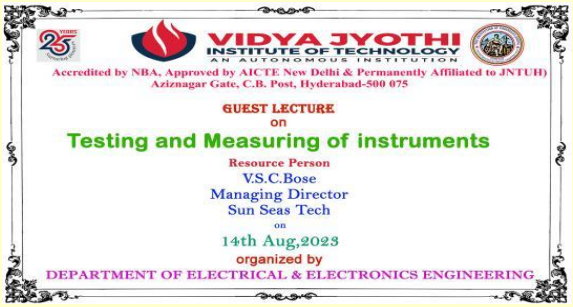
As we continue to strive for excellence, I am proud of our students' and faculty's unwavering dedication to innovation, research, and community impact. Through workshops, technical sessions, and industry collaborations, we aim to bridge the gap between academics and real-world challenges, ensuring our graduates are future-ready.

This newsletter reflects our journey, achievements, and aspirations. I hope it inspires every reader to embrace a spirit of learning and discovery.

Let us continue to illuminate the path toward a brighter, electrified future together.

PHOTO GALLERY

GUEST LECTURE



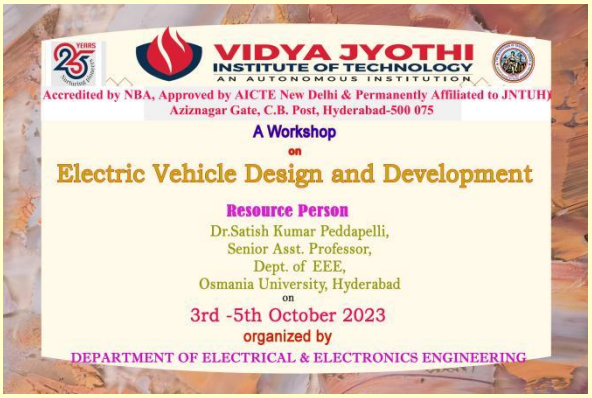
A Guest lecture on Testing and Measuring Instruments was organized to III EEE Students on 14th August ,2023. The lecture was delivered by V.S.C.Bose,Managing Director,Sun Seas Tech, a renowned expert in the field of instrumentation and measurement

The Guest Lecture on Industrial Automation was organized by EEE Department on 29th September,2023 at Room No.N106. The lecture aimed to provide insights into the latest advancements, applications, and future trends in industrial automation, bridging the gap between academic learning and industry practices.

WORKSHOPS

The National Level Workshop on Electrical Machine Design was successfully organized by EEE department to II EEE students along with students from various colleges on 25th-26th September 2023 at Room No.E012. The workshop aimed to provide a deep understanding of electrical machine design principles, methodologies, and the latest advancements in this critical domain of electrical engineering.

The Workshop on Power Quality Improvement Techniques was organized by EEE department to IV year students at N006. The workshop aimed to provide participants with in-depth knowledge and practical insights into the challenges and solutions for improving power quality in electrical systems.



A workshop on "Electric Vehicle Design and Development" was organized to IV EEE Students to provide insights into the evolving electric vehicle (EV) industry, focusing on the technological advancements, design considerations, and challenges in the development of electric vehicles.

FACULTY DEVELOPMENT PROGRAMME's

S.No	Title Faculty Development Programme	No. of participants	Date of the Event
1	One week online FDP on Recent Advances in the Power Sector, Challenges,Solutions and Opportunities	60	31-07-2023 to 05-08-2023
2	Two day FDP on Harnessing Renewable Energy Sources through Innovative Strategies for Effective Implementation	30	29-09-2023 to 30-09-2023

A One week online FDP on Recent Advances in the Power Sector, Challenges,Solutions and Opportunities was organized by EEE Department from 31st July to 5th August ,2023

Day 1(31-07-2023):
Speaker:Dr.Deepak R Pullaguram,Assistant Professor,IIT Kharagpur
Topic: Recent trends in RES technologies
Day 2(01-08-2023):
Speaker:Dr. Ram Krishnan,Assistant Professor, National Institute of Technology, Warangal, Telangana.
Topic: Mathematical Modelling of Microgrid and Simulation
Day 3(02-08-2023):
Speaker:I Tejendra Varma,Senior associate sales (OLA-OEM),OLA ELECTRIC
Topic:EV Industry In India
Day 4(03-8-2023):
Speaker: Dr. D Lakshmi,Academy of Maritime Education and Training(Deemed to be University)
Topic: Deregulated Power System
Day 5 (04-8-2023):
Dr. A Vinay Kumar,Associate Professor, GRIET, Hyderabad.
Topic: Recent trends in the power sector.
Day 6 (05-8-2023):
Mr. Dipesh Ranjan Sahoo,Chief Training Officer, Sky Riders Institutions.
Topic: Impact of EVs on the power sector, challenges, and solutions

A Two day FDP on Harnessing Renewable Energy Sources through Innovative Strategies for Effective Implementation was organized from 29th -30th September,2023.

INDUSTRIAL VISIT

Industrial Visit to Shankerpally 440/220 KV Substation was organized for IV Year EEE Students

FRESHER's DAY

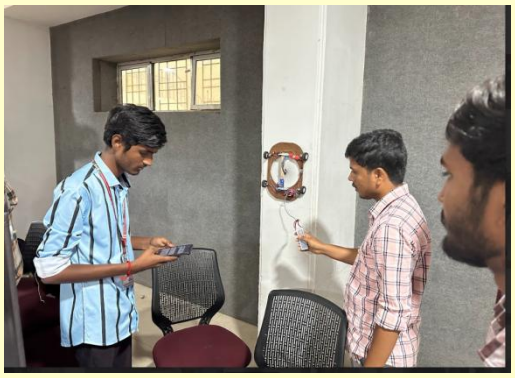
A Fresher's Day is organized by EEE department to first year students along with second year students.

GRADUATION DAY

Graduation day is organized for 2019-2023 batch students on 19th August,2023

BEST MINI PROJECTS

Roll No	Name of the Student	Title of Mini Project	Guide
21915A0201	A GANESH	Design and Software Development of Humanoid Robot	Dr. A. Srujana
21915A0207	E AJITHA		
21915A0208	G RAHUL		
21915A0209	G GANANAND GOUD		
20911A0239	MYADAM RAKESH BABU	GLASS CLEANER ROBOT USING IOT	Mrs. K. Swapna
20911A0261	KUKUTLA JALENDERNATH		
20911A0255	BANOTH MADHU		
20911A0231	MAGLA CHANDRA SHEKAR		
21915A0204	CHANDOORU SUDHEER KUMAR	Design and Fabrication of Humanoid Robot	Mr. B. Rajesh
21915A0213	K RAKESH		
21915A0218	MACHARLA RAMAKRISHNA		
21915A0225	UDGULA SRILAXMI		
20911A0224	HANUMANDLA BHARATH CHANDRA	SMART PHONE CONTROLLED RICE COOKER	Mrs. V. Vijaya Lakshmi
20911A0228	KUDUMALA VENKATA VIKRANTH		
21915A0230	VURITI JAHNAVI		
20911A0215	DEVARAMPALLY SHIRISHA		
20911A0246	P.MAHENDER	AUTOMATIC GAS STOVE CONTROL BY SENSING WHISTLE SOUND	Dr. C. N. Ravi
20911A0234	M.SURYA PRAKASH		
20911A0256	T.SAI KIRAN		
21915A0229	V.SANDEEP		



Glass Cleaner Robot Using IoT

Design and Fabrication of Humanoid Robot

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.

Student Achievements:

- Mr.B.Naveen of IV Year EEE won 1st prize in Kabbadi at Rojamma Memorial State Level Sports Fest(SPEC-2023) conducted at St.Peters Engineering College from 19th -20th June 2023.
- Mr.B.Naveen of IV Year EEE was the Runners in Kabbadi in a Sports Fest conducted at Malla Reddy University in 2023.
- Mr.Umesh of EEE was the Winner of Table Tennis state level championship.

	
Kabaddi Winners	Table Tennis Winner

Faculty Achievements:

Mr. A. Mohan Das received top 1% Topper certificate in "Advanced Power Electronics and Control" course (July-September 2023) of NPTEL Online certification conducted by IIT Roorkee

RESEARCH & DEVELOPMENT

S.No	Name of the Author(s)	Title of the Paper	Name of the Journal	Month and Year of publication	ISSN/DOI
1.	Dr. A. Srujana	A grid-connected PV module integrated electric vehicle charging station (RES & EV)	Dizhen Dizhi Journal	August 2023	(ISSN:0253-4967) Volume 15
2.	Dr. A. Srujana	An approach to recognize hand gestures using convolution neural networks and recurrent neural networks (AI &DS in EE)	ICDTCCS 2023	August 2023	ISBN 978-1-032-66547-4
3.	Dr. A. Srujana	System for managing batteries in electric vehicles (RES)	ICDTCCS 2023	August 2023	DOI:10.1201/9781032665535-48
4.	Dr.C. N. Ravi	Harmonics mitigation by advanced control module in an electrical grid with multiple electrical vehicles	Dizhen Dizhi Journal	August 2023	(ISSN:0253-4967) Volume 15
5.	Mr.B. Rajesh T. Haveela	A comparative analysis with different MPPT modules integrated for efficient PMSM drive solar	Dizhen Dizhi Journal	August 2023	(ISSN:0253-4967) Volume 15 Issue 08
6.	D.Srikanth	Design and Analysis of FLC based Speed Control for a Five-Leg Inverter Fed a Dual-Induction Motor System (PE in PS)	International Journal of Scientific Research in Engineering and	July - 2023	Volume: 07 Issue: 07 ISSN: 2582-3930

7.	K.Swapna	Speed regulation of PV fed 8/6 switched reluctance motor using optimized controller (RES)	E3S Web of Conferences International Conference on Materials Processing and Characterization (ICMPC 2023)	October 2023	https://doi.org/10.1051/e3sconf/202343001162
8.	Dr.K. Raghavaiah	Enhanced Battery Life with Supercapacitor Applied to Renewable Energy Based Electric Vehicles (RES)	Journal of New Materials for Electrochemical Systems	July 2023	https://doi.org/10.14447/jnmes.v26i3.a04

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

TRAINING

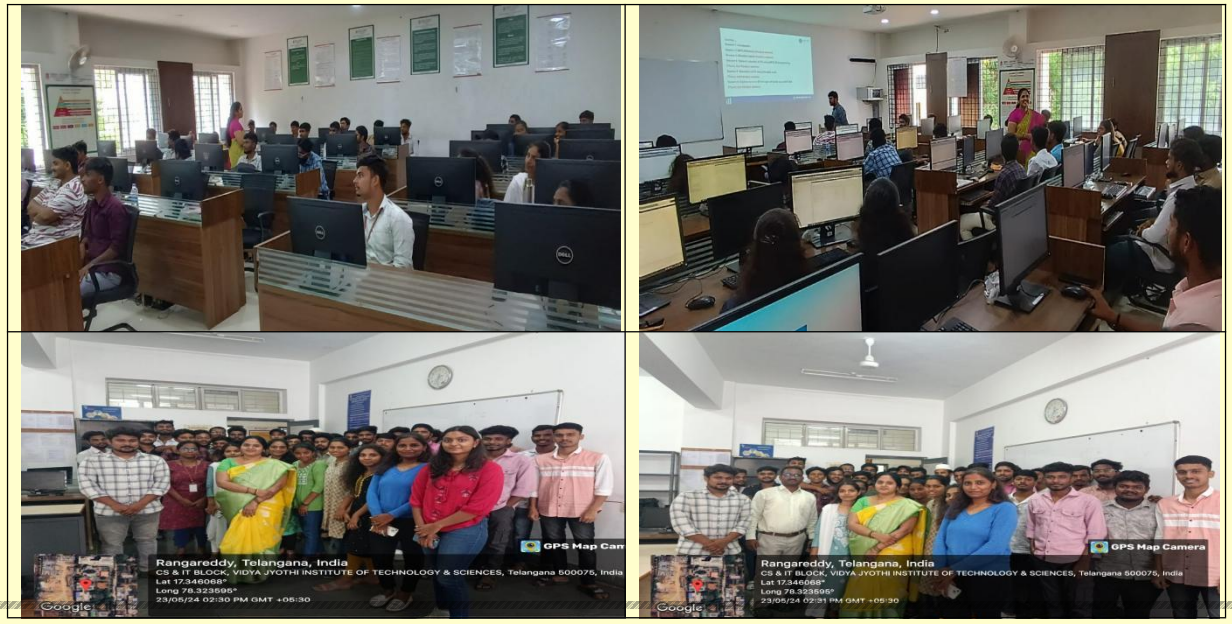
The training program on MATLAB Applications to Electric Vehicles III Year EEEStudents was conducted from 20 May to 27 May under the guidance of Skyy Skill Academy, as part of our Memorandum of Understanding (MoU) with them. The program was designed to provide both theoretical knowledge and practical expertise in EV technology and autonomous systems**.**

- **20 May**: The program started with an **Introduction to EVs**, followed by **MATLAB**

  installation for hands-on sessions.

- **21 May**: Trainees learned the **Basics of MATLAB**, covering its interface and basic operations.
- **22 May**: The focus was on **Simulink Basics**, introducing dynamic system modeling and simulation.
- **23 May**: Participants worked on **Buck and Boost Converters in Simulink** essential for EV power systems.
- **24 May**: Sessions introduced **Automatic Electric Vehicles**, with detailed discussions and group interactions.
- **25 May**: Advanced concepts of autonomous EVs were covered, concluding with participant presentations.
- **27 May**: The program ended with a **test on autonomous EVs** and a **MATLAB training session** for designing autonomous systems.

This training equipped participants with practical skills and theoretical knowledge



Innovative teaching Methods

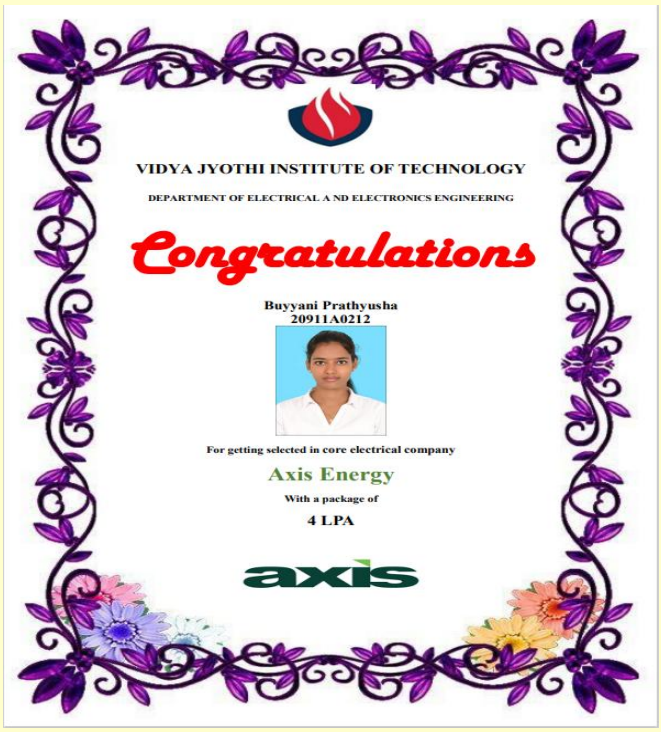
Socio Constructivist Perspective Method:
Subject:BEE
Faculty:Mrs.K.Swapna
Social constructivist perspectives focus on the interdependence of students in the co-construction of knowledge

Project Based Learning:
Subject: Electro Magnetic Fields
Faculty:Mr.B.Sudhakar Reddy
In this method students are encouraged to work on the real time problems with engineering solutions. In this approach some no of students are encouraged to work on the problems with solution from the knowledge gained from electromagnetic fields The following is the one output of this approach

Academic Toppers

S.No	Year/Sem	Roll.No	Name of the Student	CGPA
1	II/I	23915A0220	PUTTOZU ADITHYA	9.65
		23915A0214	KARIPE PRASHANTH	9.5
2	III/I	21911A0218	V ABHAY KUMAR	8.57
		22915A0214	SAPA RAKESH KUMAR	8.56
3	IV/I	20911A0250	SIDDAMSETTY NIKHITHA	8.82
		21915A0203	BATHULA THARUN KUMAR	8.65

Placements



- M.Ramakrishna,E.Ajitha and B.Madhu were placed in Tata consulting Engineers with a package of 4.5LPA
- B.Prathyusha is placed in Axis Energy with a package of 4 LPA