

TECHNOLOID

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A PUBLICATION OF EEE DEPARTMENT



**KALLAM HARANADHAREDDY INSTITUTE OF
TECHNOLOGY**

Affiliated To JNTUK, Approved by AICTE, New Delhi
NH-5, Chowdavaram, Guntur-522019, AP., India

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

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➤ **About College:**

Founder promoter members of the Society, who are Primarily Businessmen, Believe that the future of India can be built and moulded in class rooms; the total education can play a very important role for peaceful and co-operative existence of all human beings. The National and International understanding can be Built-up only through the Tool of Education, thereby after careful and meaningful discussions among ourselves, We desired to establish a society by the name " **KALLAM ACADEMY OF EDUCATIONAL SOCIETY** ". The Society is registered as vide **Reg. No. 24 of 2006 dated 17-01-2006** under the **Andhra Pradesh Societies Registration Act, 35 of 2001**.

Science and Technology have emerged major factors in the sustenance of the society. They are changing the world with a matchless speed and magnitude. In this scenario, to create competent technocrats, an ideal institution with good ambience, infrastructure and eminent faculty is required.



Message from Founder Chairman:



Sri Kallam Haranadha Reddy, Chairman, KHIT The pride of every student and staff would be in his/her college. A college may reach heights of glory but without materials like the college magazine, the outside world may not know of it.

The role of a college magazine is there-fore vital in promoting what an institution offers. It brings out into the open things hitherto unrevealed. It brings to light the names of the unsung heroes and their mighty deeds.

I am happy that there is a dedicated team of staff and students who have brought out the magazine of our college. They have presented the stupendous achievements of KHITians in the fields of academics, research, sports and extra-curricular activities, in a wonderful way.

I wish the magazine a grand success.

BEST WISHES!!!!

DEPARTMENT VISION

To impart quality technical education to the graduates inculcating the professional skills and knowledge in the field of Electrical and Electronics Engineering with ethical values to serve the needs of the society with global standards.

DEPARTMENT MISSION

M1: To provide quality education through qualified faculty and state-of-the-art laboratories ensuring excellence in Electrical and Electronics Engineering.

M2: To equip students with technical expertise and entrepreneurial skills through a structured curriculum and fostering lifelong learning.

M3: To inspire students to succeed in professional practice and to pursue higher education in Electrical and Electronics Engineering.

M4: To encourage self-discipline and accountability in students, shaping them into responsible citizens to meet the desirable needs of society.

M5: To cultivate a culture of research, innovation and entrepreneurship in the core and allied fields of Electrical and Electronics Engineering.

Program Educational Objectives (PEOs)

The Program Educational Objectives of the B. Tech in Electrical and Electronics Engineering program are given below and are numbered from PEO1 to PEO3:

PEO 1	Exhibit a strong foundation in Electrical and Electronics Engineering with advanced knowledge in current technologies to address the real-world problems
PEO 2	Apply knowledge of Electrical and Electronics Engineering to contribute design, development and testing of systems that address societal and industrial needs.
PEO 3	Communicate effectively, demonstrate professionalism, collaboration, ethical attitude, team spirit and pursue lifelong learning to achieve career, organizational and societal goals.

Program Specific Outcomes (PSOs)

PSO1 Apply the knowledge of electrical engineering, investigate and solve the complex electrical Engineering problems to meet the specified needs with appropriate considerations for the society.

PSO2 Analyze, design and integrate electrical systems and apply modern tools and techniques to the complex engineering problems and create passion for life-long learning.

PSO3 Acquire skills through hands-on experience and work effectively alone or with a team, demonstrating expertise and entrepreneurial mindset.

About the HOD:



Dr. K. Hari Krishna

Education

- Bachelors of Technology from Jawaharlal Nehru Technological University Kakinada - JNTUK, Andhra Pradesh, India
- Masters from Acharya Nagarjuna University, Andhra Pradesh, India.
- Ph.D from Acharya Nagarjuna University, Andhra Pradesh, India.

Experience

- Professor, Department of Electrical & Electronics Engineering, Kallam Haranaghareddy Institute of Technology, Guntur, 05/06/2014 to till date
- Associate Professor, Department of Electrical & Electronics Engineering, S.S.N. College of Engineering and Technology, Ongole, A.P., India, 08/05/2006 to 02/06/2014.

- Assistant Professor, Department of Electrical & Electronics Engineering, Malineni Lakshmaiah Engineering College, Singarayakonda, A.P., India, 24/09/2003 to 09/07/2004.

Work Experience:

- Total Service: 20 Years

Title of the Research work: Optimal Load Frequency Control for Deregulated Power Systems.

Research Interests:

Power system operation and control, Optimal techniques in power flow analysis and power system Management.

Membership in Professional Bodies:

- Life member of Indian Society for Technical Education (ISTE)

Research Projects:

- Successfully coordinated ATAL Online Faculty Development Programme on "Energy Storage" from 07-09-2020 to 11-09-2020.

Research Scholar Guided / Guiding:

- ❖ **One** research scholar completed Ph.D from Annamalai University in 2022.
- ❖ Guiding **One** Ph.D students registered at Annamalai University from 2019.

Electrical and Electronics Engineering

BOS

S. No	BOS Hierarchy	Name, Designation of the Member & Affiliation	Email	Mobile
1	Chairman	Dr. K. Hari Krishna Professor & HOD / EEE, KHIT.	harikrishnaketha81@gmail.com	9849048409
2	University Nominee	Dr. Y.S. Kishore Babu Professor of EEE & HOD, UCEN, JNTUK, Narasaraopet.	yskbabu@gmail.com	9440518404
3	Subject Expert (Academic)	Dr. I. Satish Kumar,	drinjetisatishkumar@nitw.ac.in	9581371537

S. No	BOS Hierarchy	Name, Designation of the Member & Affiliation	Email	Mobile
		Assistant Professor, EEE Department, NIT Warangal, Telangana.		
4	Subject Expert (Academic)	Dr. G. Srinivasa Rao Professor, EEE Department, Vignan's Foundation for science, Technology & Research (Deemed to be University), Vadlamudi, Guntur.	hodeee@vignan.ac.in	8247759924
5	Subject Expert (Industry)	Mr. V. Srinivasa Rao ADE, CAM, RTPP, Kadapa.	srinivasarao.vasadi@gmail.com	9493121213
6	Alumni/Co-opted member	Mr. J. Sunil Babu Assistant Professor, EEE, KHIT.	sunnyjoybennymarry@gmail.com	9505551561
7	Senior Faculty	Dr. L. Shanmukha Rao Professor, EEE, KHIT.	lsrlinginini@yahoo.co.in	9440372593
8	Coordinator / Internal Faculty	Dr. G. Kishor Babu Professor, EEE, KHIT.	kish.eee01@gmail.com	9849933405

ABOUT THE DEPARTMENT

Department of Electrical and Electronics Engineering

The Department of Electrical and Electronics Engineering was Established in the academic year 2010-11 with an intake of 60, as one of the core Engineering program of Kallam Haranadhreddy institute of Technology, affiliated with Jawaharlal Nehru Technological University, Kakinada (JNTUK). The department is accredited by NBA, reflecting its commitment to quality education and continuous improvement. The department of EEE is supported by a team of highly qualified, experienced and dedicated faculty members, many of whom hold doctoral degrees and few are Perusing their Ph.Ds.

The curriculum is designed to cover core subjects like Electrical Machines, Power Systems, Control Systems, Power Electronics, and Renewable Energy.

The department offers students a practical learning environment through well-equipped, modern laboratories and advanced simulation tools. These facilities help students apply theoretical knowledge to real-world problems and develop research skills.

To enhance industry readiness, the department regularly organizes workshops, seminars, internships, and industrial visits. These activities expose students to current industry practices and technologies. In addition, the department has established strong ties with industries through MoUs and collaborative programs, creating valuable opportunities for students in learning, training, and career development.

The department ensures strong placement support, with students placed in reputed core and IT companies, while also motivating them for higher studies and entrepreneurship. In addition to technical growth. Students are encouraged to participate in research projects, paper publications, innovation challenges, hackathons, and professional society activities (ISTE), which enhance their problem-solving, leadership, and teamwork skills.

Teaching faculty

S.No.	Name of the Faculty	Designation	Highest degree	Area of Specialization	Date of Joining in this Institution
1	Dr. K. Hari Krishna	Associate Professor	Ph. D	Power Systems	05.06.2014
2	Dr. L. Shanmukha Rao	Professor	Ph. D	Power Systems	01.06.2016
3	Dr. G. Kishor Babu	Professor	Ph. D	Control Systems	08.08.2022
4	Dr. P. P. Sharma	Associate Professor	Ph. D	Power Systems & Automation	03.06.2013
5	Dr. M. S. Naik	Assistant Professor	Ph. D	Power Electronics & Drives	22.06.2015
6	Mr. R. Subba Reddy	Associate Professor	M.Tech (Ph. D)	Power Systems	04.06.2011
7	Mr. M. V. N. Murthy	Assistant Professor	M.Tech (Ph. D)	Power Systems	06.06.2011
8	Mr. V. Rajesh	Assistant Professor	M.Tech	Power & Industrial Drives	07.02.2022
9	Mr. P. Venu Babu	Assistant Professor	M.Tech (Ph. D)	Control Systems	14.03.2022
10	Mr. M. Ranjith Kumar	Assistant Professor	M.E (Ph. D)	Power Systems & Automation	01.08.2022
11	Mrs. P. Kavitha	Assistant Professor	M.Tech	Power & Industrial Drives	23.08.2022
12	Mr. D. Sambasivarao	Assistant Professor	M.Tech	Power Systems & High Voltage Engineering	21.10.2021
13	Mrs. P. Nagadivya	Assistant Professor	M.Tech	Power Electronics	18.04.2022

14	Mr. J. Sunil Babu	Assistant Professor	M.Tech	Power Systems& Engineering	19.06.2023
15	Mr. K. Gopi Krishna	Assistant Professor	M.Tech	Power Electronics	11.07.2023
16	Mrs. P. Naga Jyothi	Assistant Professor	M.Tech	Power Electronics	01.06.2019

Program Outcomes (PO's)

PO1	Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3	Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO4	Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO5	Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
PO6	Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
PO7	Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9	Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO11	Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO12	Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PSO1	Apply the knowledge of electrical engineering, investigate and solve the complex electrical engineering problems to meet the specified needs with appropriate considerations for the society.
PSO2	Analyze, design and integrate electrical systems and apply modern tools and techniques to the complex engineering problems and create passion for life-long learning.
PSO3	Acquire skills through hands-on experience and work effectively alone or with a team, demonstrating expertise and entrepreneurial mindset.

Student Achievements:

S. No	Regd. No.	Name of The Student	Name of The Event	Event dates	Name of the Organizing Inst.	Merit/Participation	State – within /outside
1	208X1A0202	Bathula Sri Manikanta	Paper Presentation	Explorers Meet-2k24, 6 & 7 March 2024	SRK Institute of Technology	Participation	State – within
2	208X1A0203	Bathula Tejasri	Technical Quiz	Samkalp2k23, 22 & 23 Oct 2023	Kallam Haranadhareddy Institute of Technology	1 st Prize	State – within

3	208X1A0204	Bellamkonda Deepthi	Paper Presentation	Samkalp2k23 ,22 & 23 Oct 2023	Kallam Haranadhareddy Institute of Technology	2 nd Prize	State – within
4	208X1A0207	Busi Venkata Bhanu Prakash Reddy	Paper Presentation	Vignan's Mahotsav 2023, 15-02-2023 To 17-02-2023	Vignan's Foundation For Science, Technology & Research, Guntur	Participation	State – within
5	208X1A0209	Chirra Mounika	Paper Presentation	Explorers Meet-2k24, 6 & 7 March 2024	SRK Institute of Technology	2 nd Prize	State – within
6	208X1A0211	Gajula Srilakshmi	Paper Presentation	Aagama2024, 16 Th March 2024	MIC College of Technology	Participation	State – within
7	208X1A0213	Guntu Kalyani	Paper Presentation	Samkalp2k23 ,22 & 23 Oct 2023	Kallam Haranadhareddy Institute of Technology	2 nd Prize	State – within
8	208X1A0218	Karna Venkatakrishna	Paper Presentation	Samkalp2k23 ,22 & 23 Oct 2023	Kallam Haranadhareddy Institute of Technology	Participation	State – within
9	208X1A0226	Naru Karthik Reddy	Technical Quiz	Samkalp2k23 ,22 & 23 Oct 2023	Kallam Haranadhareddy Institute of Technology	1 st Prize	State – within
10	208X1A0228	Onteddu Hari Priya	Paper Presentation	Explorers Meet-2k24, 6 & 7 March 2024	SRK Institute of Technology	Participation	State – within
11	208X1A0232	Rangannapalem Lavanya Vijaya Lakshmi	Paper Presentation	Samkalp2k23 ,22 & 23 Oct 2023	Kallam Haranadhareddy Institute of Technology	Participation	State – within
12	208X1A0236	Shaik Sameer Basha	Paper Presentation	Aagama2024, 16 Th March 2024	MIC College of Technology	1 st Prize	State – within

13	208X1A0239	Thontla Nagarjuna Reddy	Paper Presentation	Vignan's Mahotsav 2023, 15-02-2023 To 17-02-2023	Vignan's Foundation For Science, Technology & Research, Guntur	Participation	State – within
14	218X5A0202	Jinkala Pavan Kalyan	Paper Presentation	Explorers Meet-2k24, 6 & 7 March 2024	SRK Institute of Technology	2 nd Prize	State – within
15	218X5A0204	Kollipaka John Deva Prabhudas	Paper Presentation	Samkalp2k23 ,22 & 23 Oct 2023	Kallam Haranadhareddy Institute of Technology	3 rd Prize	State – within
16	218X5A0209	Sesham Uma Maheswara Rao	Paper Presentation	Aagama2024, 16 Th March 2024	MIC College of Technology	Participation	State – within
17	218X5A0213	Sk Mobina Apsara	Paper Presentation	Samkalp2k23 ,22 & 23 Oct 2023	Kallam Haranadhareddy Institute of Technology	3 rd Prize	State – within
18	218X1A0201	Adapa Mani Krishna	Technical Quiz	Samkalp2k23 ,22 & 23 Oct 2023	Kallam Haranadhareddy Institute of Technology	2 nd Prize	State – within
19	218X1A0205	Gopu Trinadh	Paper Presentation	Explorers Meet-2k24, 6 & 7 March 2024	SRK Institute of Technology	Participation	State – within
20	218X1A0209	Kalisetty Prem Chand	Technical Quiz	Explorers Meet-2k24, 6 & 7 March 2024	SRK Institute of Technology	Participation	State – within
21	218X1A0215	Parimi Sudhakar	Paper Presentation	Aagama2024, 16 Th March 2024	MIC College of Technology	Participation	State – within
22	218X1A0217	Rupanaguntla Lakshmi Hanuma Santhoshini	Paper Presentation	Vignan's Mahotsav 2023, 15-02-2023 To 17-02-2023	Vignan's Foundation For Science, Technology & Research, Guntur	Participation	State – within

23	218X1A0223	Veerisetty Thilak Kumar	Technic al Quiz	Explorers Meet-2k24, 6 & 7 March 2024	SRK Institute of Technology	3 rd Prize	State – within
24	218X1A0226	Pathlavath Madhavi Bai	Technic al Quiz	Samkalp2k23 ,22 & 23 Oct 2023	Kallam Haranadhareddy Institute of Technology	2 nd Prize	State – within
25	228X5A0202	Chatarajupall i Vaishnavi	Technic al Quiz	Samkalp2k23 ,22 & 23 Oct 2023	Kallam Haranadhareddy Institute of Technology	Particip ation	State – within
26	228X5A0204	Dundi Gangadhar Reddy	Technic al Quiz	Samkalp2k23 ,22 & 23 Oct 2023	Kallam Haranadhareddy Institute of Technology	Particip ation	State – within
27	228X5A0207	Gollapalli Uma Manikanta	Paper Present ation	Aagama2024, 16 Th March 2024	MIC College of Technology	1 st Prize	State – within
28	228X5A0211	Kakumanu Pradeep Kumar	Technic al Quiz	Explorers Meet-2k24, 6 & 7 March 2024	SRK Institute of Technology	Particip ation	State – within
29	228X5A0215	Kondeti Praneeth	Technic al Quiz	Samkalp2k23 ,22 & 23 Oct 2023	Kallam Haranadhareddy Institute of Technology	Particip ation	State – within
30	228X5A0217	Marella Rohit	Technic al Quiz	Aagama2024, 16 Th March 2024	MIC College of Technology	Particip ation	State – within
31	228X5A0224	Porumamilla Gopi	Paper Present ation	Vignan's Mahotsav 2023, 15-02- 2023 To 17- 02-2023	Vignan's Foundation For Science, Technology & Research, Guntur	Particip ation	State – within
32	228X5A0227	Saikam Yaswanth Varma	Technic al Quiz	Explorers Meet-2k24, 6 & 7 March 2024	SRK Institute of Technology	Particip ation	State – within

33	228X5A0231	Vankayalpati Bala Raju	Technic al Quiz	Aagama2024, 16 Th March 2024	MIC College of Technology	3 rd Prize	State – within
34	218X1A0211	Naru Ramanji Reddy	Technic al Quiz	Samkalp2k23 ,22 & 23 Oct 2023	Kallam Haranadhareddy Institute of Technology	Particip ation	State – within
35	228X1A0202	Allacheruvu Prashanth	Technic al Quiz	Samkalp2k23 ,22 & 23 Oct 2023	Kallam Haranadhareddy Institute of Technology	Particip ation	State – within
36	228X1A0205	Andugulapati Prasanna	Paper Present ation	Aagama2024, 16 Th March 2024	MIC College of Technology	Particip ation	State – within
37	228X1A0208	Changalsetty Naga Sai Ganesh	Technic al Quiz	Samkalp2k23 ,22 & 23 Oct 2023	Kallam Haranadhareddy Institute of Technology	Particip ation	State – within
38	228X1A0210	Dudekula Roshan Basha	Technic al Quiz	Explorers Meet-2k24, 6 & 7 March 2024	SRK Institute of Technology	3 rd Prize	State – within
39	228X1A0219	Siva Kumar Battula	Technic al Quiz	Samkalp2k23 ,22 & 23 Oct 2023	Kallam Haranadhareddy Institute of Technology	Particip ation	State – within
40	228X1A0224	Vadithe Nagaraju Naik	Paper Present ation	Aagama2024, 16 Th March 2024	MIC College of Technology	Particip ation	State – within
41	228X1A0229	Dwarakachar la Thirupathi Reddy	Technic al Quiz	Vignan's Mahotsav 2023, 15-02- 2023 To 17- 02-2023	Vignan's Foundation For Science, Technology & Research, Guntur	Particip ation	State – within
42	238X5A0201	Aratipamula Venkata Srinivasarao	Technic al Quiz	Aagama2024, 16 Th March 2024	MIC College of Technology	Particip ation	State – within

43	238X5A0205	Dasi John Prasanth Babu	Paper Presentation	Samkalp2k23 ,22 & 23 Oct 2023	Kallam Haranadhareddy Institute of Technology	Participation	State – within
44	238X5A0209	Paramkusam Vijay Karthik	Technical Quiz	Aagama2024, 16 Th March 2024	MIC College of Technology	3 rd Prize	State – within
45	238X5A0211	Pralayakaveri Gopi	Technical Quiz	Samkalp2k23 ,22 & 23 Oct 2023	Kallam Haranadhareddy Institute of Technology	Participation	State – within
46	238X5A0213	Rajineedi Sai Kumar	Paper Presentation	Samkalp2k23 ,22 & 23 Oct 2023	Kallam Haranadhareddy Institute of Technology	Participation	State – within
47	238X5A0215	Tegada Gayathri	Technical Quiz	Vignan's Mahotsav 2023, 15-02-2023 To 17-02-2023	Vignan's Foundation For Science, Technology & Research, Guntur	Participation	State – within
48	238X5A0217	Yarlagadda Venkata Naga Lakshman	Technical Quiz	Samkalp2k23 ,22 & 23 Oct 2023	Kallam Haranadhareddy Institute of Technology	Participation	State – within
49	238X5A0220	Nakka Dayana	Paper Presentation	Samkalp2k23 ,22 & 23 Oct 2023	Kallam Haranadhareddy Institute of Technology	Participation	State – within
50	238X5A0222	Sidde Lakshmi Venkata Bhupal	Technical Quiz	Aagama2024, 16 Th March 2024	MIC College of Technology	Participation	State – within
51	238X5A0224	Danaboina Devanand Raju	Paper Presentation	Aagama2024, 16 Th March 2024	MIC College of Technology	Participation	State – within
52	238X5A0226	Bommnaboyi na Anil Sairam	Technical Quiz	Vignan's Mahotsav 2023, 15-02-2023 To 17-02-2023	Vignan's Foundation For Science, Technology & Research, Guntur	Participation	State – within

53	218X1A0205	Gopu Trinadh	Blind Folded Circuits	Exousia 2k23, 05-10-2023	VVIT,Nambur	Participation	
54	218X5A0209	Sesham Uma Maheswara Rao	Paper Presentation	Adyant Annual Fest, 31-03-23 To 01-04-23	Malla Reddy Engineering College.	Participation	State – outside
55	218X5A0213	Sk Mobina Apsara	Paper Presentation	Adyant Annual Fest, 31-03-23 To 01-04-23	Malla Reddy Engineering College.	Participation	State – outside
56	218X1A0201	Adapa Mani Krishna	Technical Quiz	Adyant Annual Fest, 31-03-23 To 01-04-23	Malla Reddy Engineering College.	Participation	State – outside
57	218X1A0205	Gopu Trinadh	Paper Presentation	Adyant Annual Fest, 31-03-23 To 01-04-23	Malla Reddy Engineering College.	Participation	State – outside
58	218X1A0209	Kalisetty Prem Chand	Technical Quiz	Adyant Annual Fest, 31-03-23 To 01-04-23	Malla Reddy Engineering College.	Participation	State – outside
59	208X1A0203	Bathula Tejasri	Paper Presentation	Adyant Annual Fest, 31-03-23 To 01-04-23	Malla Reddy Engineering College.	Participation	State – outside
60	208X1A0204	Bellamkonda Deepthi	Technical Quiz	Adyant Annual Fest, 31-03-23 To 01-04-23	Malla Reddy Engineering College.	Participation	State – outside
61	208X1A0207	Busi Venkata Bhanu Prakash Reddy	Technical Quiz	Adyant Annual Fest, 31-03-23 To 01-04-23	Malla Reddy Engineering College.	Participation	State – outside
62	218X5A0202	Jinkala Pavan Kalyan	Paper Presentation	Adyant Annual Fest,	Malla Reddy Engineering College,	Participation	State –

				31-03-23 To 01-04-23			outsid e
63	218X5A0204	Kollipaka John Deva Prabhudas	Paper Present ation	Adyant Annual Fest, 31-03-23 To 01-04-23	Malla Reddy Engineering College	2 nd Prize	Outsi de State
64	218X5A0209	Sesham Uma Maheswara Rao	Paper Present ation	Adyant Annual Fest, 31-03-23 To 01-04-23	Malla Reddy Engineering College	2 nd Prize	Outsi de State
65	218X1A0206	Govindu Sravya	Paper Present ation	Adyant Annual Fest, 31-03-23 To 01-04-23	Malla Reddy Engineering College	Particip ation	State – outsid e
66	218X1A0208	Jaswanth Guntupalli	Technic al Quiz	Vignan's Mahotsav 2023, 15-02- 2023 To 17- 02-2023	Vignan's Foundation For Science, Technology & Research, Guntur	Particip ation	State – within
67	218X1A0209	Kalisetty Prem Chand	Paper Present ation	Vignan's Mahotsav 2023, 15-02- 2023 To 17- 02-2023	Vignan's Foundation For Science, Technology & Research, Guntur	Particip ation	State – within
68	218X1A0210	Kotha Venkata Ramya	Technic al Quiz	Vignan's Mahotsav 2023, 15-02- 2023 To 17- 02-2023	Vignan's Foundation For Science, Technology & Research, Guntur	Particip ation	State – within
69	228X5A0213	Karanki Sai Teja	Paper Present ation	Vignan's Mahotsav 2023, 15-02- 2023 To 17- 02-2023	Vignan's Foundation For Science, Technology & Research, Guntur	Particip ation	State – within
70	228X5A0214	Katta Komali	Technic al Quiz	Vignan's Mahotsav 2023, 15-02-	Vignan's Foundation For Science, Technology &	Particip ation	State – within

				2023 To 17-02-2023	Research, Guntur		
71	238X5A0224	Danaboina Devanand Raju	Paper Presentation	Vignan's Mahotsav 2023, 15-02-2023 To 17-02-2023	Vignan's Foundation For Science, Technology & Research, Guntur	Participation	State – within
72	238X5A0225	Makkena Raj Kumar	Paper Presentation	Vignan's Mahotsav 2023, 15-02-2023 To 17-02-2023	Vignan's Foundation For Science, Technology & Research, Guntur	Participation	State – within

Faculty Achievements:

- List of Publications:**

S. No	Name of the author	Title of the Paper	Name of the Journal	Month & Year of Publications	ISSN /DOI Number	Remarks
1	Dr. K. Hari Krishna	Transformer-less ANN-Controlled STATCOM-based Power quality improvement for three phase DC-AC Boost inverter in grid-connected solar photovoltaic Systems	International Journal of Electrical and Electronics Engineering	NOV 2023	ISSN: 2348-8379	SCOUPS
2	Dr. K. Hari Krishna	An intelligent based DC series electric springs in DC micro grids	International Journal of Intelligent Systems and Applications in Engineering	JAN 2024	ISSN: 2147-6799	SCOUPS

3	Dr. L. Shanmukha Rao	Analysis of a novel soft switching bidirectional DC-DC Converter for electric vehicle	International Journal of Applied Power Engineering	OCT 2023	ISSN: 2302-9285	SCOUPS
4	Dr. L. Shanmukha Rao	Performance evaluation of solar-PV integrated hybrid fuzzy Logic controlled multi-functional UPQC for enhancing PQ features	International Journal of Applied Power Engineering	JUNE 2024	ISSN: 2252-8792	SCOUPS
5	Dr. L. Shanmukha Rao	A novel hybrid-fuzzy logic based UVC technique for Solar-PV/Grid integrated water-pumping system	International Journal of Applied Power Engineering	JUNE 2024	ISSN: 2252-8792	SCOUPS
6	Dr. L. Shanmukha Rao	Performance evaluation of novel 9-level RSMLI topology for Grid-tied solar-PV system	International Journal of Applied Power Engineering	JUNE 2024	ISSN: 2252-8792	SCOUPS
7	Dr. L. Shanmukha Rao	A novel solar PV integrated fuzzy-logic controlled UAPQC Device for power quality enhancement	International Journal of Advances in Applied Sciences	MARCH 2024	ISSN: 2252-8814	SCOUPS
8	Dr. L. Shanmukha Rao	A novel fuzzy-logic controller - MDSUPQC topology for power quality improvement in multi-feeder distribution system	International Journal of Advances in Applied Sciences	MARCH 2024	ISSN: 2252-8814	SCOUPS
9	Dr. L. Shanmukha Rao	A novel 7-level reduced-switch MLI topology fed PMSM drive for electric vehicle system	Indonesian Journal of Electrical Engineering and Computer Science	FEB 2024	ISSN: 2502-4752	SCOUPS
10	Dr. L. Shanmukha Rao	A novel SIMIDCBC topology driven	International Journal of Applied	MARCH 2024	ISSN: 2252-8792	SCOUPS

		PMSM for PEV application	Power Engineering			
11	Dr. L. Shanmukha Rao	Mitigation of PQ issues in EV charging station connected distribution system using novel RSMLI - based shunt APF	International Journal of Advances in Applied Sciences	DEC 2023	ISSN: 2252-8814	SCOUPS
12	Dr. G. Kishor Babu	Analysis of a bi-directional power Converter of electric vehicle	Journal of systems engineering and electronics	DEC 2023	ISSN: 1671-1793	SCI
13	Dr. P. P. Sharma	A novel fuzzy-logic controller-MDSUPQC topology for power quality improvement in multi-feeder distribution system	International Journal of Advances in Applied Sciences	MARCH 2024	ISSN: 2252-8814	SCOUPS
14	Dr. P. P. Sharma	A novel solar PV integrated fuzzy-logic controlled UAPQC device for power quality enhancement	International Journal of Advances in Applied Sciences	MARCH 2024	ISSN: 2252-8814	SCOUPS
15	Dr. P. P. Sharma	Performance evaluation of novel 9-level RSMLI topology for Grid-tied solar-PV system	International Journal of Applied Power Engineering	JUNE 2024	ISSN: 2252-8792	SCOUPS
16	Dr. P. P. Sharma	A novel hybrid-fuzzy logic based UVC technique for Solar-PV/grid integrated water-pumping system	International Journal of Applied Power Engineering	JUNE 2024	ISSN: 2252-8792	SCOUPS
17	Dr. P. P. Sharma	Performance evaluation of solar-PV, integrated hybrid fuzzy Logic controlled multi-functional UPQC for enhancing PQ features	International Journal of Applied Power Engineering	JUNE 2024	ISSN: 2252-8792	SCOUPS

18	Mr. M. V. N. Murthy	Performance evaluation of solar-PV integrated hybrid fuzzy Logic controlled multi-functional UPQC for enhancing PQ features	International Journal of Applied Power Engineering	JUNE 2024	ISSN: 2252-8792	SCOUPS
19	Mr. M. V. N. Murthy	Mitigation of PQ issues in EV charging station connected Distribution system using novel RSMLI-based shunt APF	International Journal of Advances in Applied Sciences	DEC 2023	ISSN: 2252-8814	SCOUPS
20	Mr.M. Ranjith Kumar	Mitigation of PQ issues in EV charging station connected Distribution system using novel RSMLI-based shunt APF	International Journal of Advances in Applied Sciences	DEC 2023	ISSN: 2252-8814	SCOUPS
21	Mr. M. Ranjith Kumar	A novel hybrid-fuzzy logic based UVC technique for Solar-PV/grid integrated water-pumping system	International Journal of Applied Power Engineering	JUNE 2024	ISSN: 2252-8792	SCOUPS

• **List of FDP's:**

S.No	Name of the Faculty	FDP / Workshop /Seminar /STTP	Title of the Program	Date(s)		Organization
				From	To	
1	Dr. K. Hari Krishna	FDP	AI Techniques in electrical system	15/04/2024	20/04/2024	Bapatla Engineering College
2	Dr. K. Hari Krishna	STTP	Electrical CAD Design	26/06/2023	01/07/2023	Bapatla Engineering College
3	Dr. L. Shanmukharao	FDP	Advancements in aerospace materials: manufacturing, testing and	11/03/2024	15/03/2024	Hindustan College of Engineering and Technology

			characterization 2.0			
4	Dr. G. Kishor babu	FDP	NSQF Aligned Skill Development	19/02/2 024	23/02/2 024	Narasaraopet Engineering College
5	Dr. G. Kishor babu	FDP	Advancements in aerospace materials: manufacturing, testing and characterization 2.0	11/03/2 024	15/03/2 024	Hindustan College of Engineering and Technology
6	Dr.P.P. Sharma	FDP	NSQF Aligned Skill Development	19/02/2 024	23/02/2 024	Narasaraopet Engineering College
7	Mr. R. Subbareddy	STTP	Electrical CAD Design	26/06/2 023	01/07/2 023	Bapatla Engineering College
8	Mr. M.V.N.Murt hy	FDP	Advancements in aerospace materials: manufacturing, testing and characterization 2.0	11/03/2 024	15/03/2 024	Hindustan College of Engineering and Technology
9	Mr.V. Rajesh	FDP	Advancements in aerospace materials: manufacturing, testing and characterization 2.0	11/03/2 024	15/03/2 024	Hindustan College of Engineering and Technology
10	Mr.P. Venubabu	FDP	NSQF Aligned Skill Development	19/02/2 024	23/02/2 024	Narasaraopet Engineering College
11	Mr.M. Ranjith Kumar	FDP	Advancements in aerospace materials: manufacturing, testing and characterization 2.0	11/03/2 024	15/03/2 024	Hindustan College of Engineering and Technology

12	Mrs. P. Kavitha	FDP	NSQF Aligned Skill Development	19/02/2024	23/02/2024	Narasaraopet Engineering College
13	Mr.J. Sunil babu	FDP	NSQF Aligned Skill Development	19/02/2024	23/02/2024	Narasaraopet Engineering College
14	Mrs. P. Naga divya	FDP	NSQF Aligned Skill Development	19/02/2024	23/02/2024	Narasaraopet Engineering College
15	Mr. D. Sambhasiva Rao	FDP	Advancements in aerospace materials: manufacturing, testing and characterization 2.0	11/03/2024	15/03/2024	Hindustan College of Engineering and Technology
16	Mrs. P. Nagajyothi	FDP	NSQF Aligned Skill Development	19/02/2024	23/02/2024	Narasaraopet Engineering College
17	Dr. M. S. Naik	FDP	Advancements in aerospace materials: manufacturing, testing and characterization 2.0	11/03/2024	15/03/2024	Hindustan College of Engineering and Technology
18	Mr. K. Gopi Krishna	FDP	NSQF Aligned Skill Development	19/02/2024	23/02/2024	Narasaraopet Engineering College

➤ **Student workshops and guest lecturers:**

S. No	Name of the Event Organized	Event Type	Date	Resource Person with Affiliation
1	A Three Day Workshop-2024 “PCB Design”in association with APSSDC	Workshop	23.01.2024 to 25.01.2024	Mr. B. Mahidhar, Trainer, APSSDC, Vijayawada, Andhra Pradesh
2	A Three Day Workshop-2024 “PCB Design”in	Workshop	08.01.2024 to 10.01.2024	Mr. B. Mahidhar, Trainer, APSSDC, Vijayawada, Andhra Pradesh

	association with APSSDC			
3	"The Career Shift: Preparing for Corporate Excellence"	Awareness Session	03-02-2024	Abhishek Doijode, Campus Hiring, University relations, Virtusa
4	"Shaping Your Future in Cloud Technology"	Career Talk	10-02-2024	Shubam Nigam, Associate Principal Engineer, Nagarro
5	"Unlocking Potential: Transitioning Smoothly to the Corporate Sphere"	Awareness Session	15-02-2024	N. Vasishta, Data Engineer, Hexaware Private Ltd
6	"Career in Technical Writing"	Career Talk	24-02-2024	Siddarth Aggarwal, Head of Information Development, NEWGEN
7	"Empowering Women in Tech: Inside AWS Data Centers in India"	Webinar	03-04-2024	Amazon Web Services
8	"Career in Cloud Technologies"	Webinar	27-04-2024	Samir Pradhan, Senior Technical Architect, VIAPLUS
9	"Future Proof Your Engineering Career with AI and Generative AI"	Career Talk	15-05-2024	Kiran Chandaka, Vice President, State Street
10	"Careers in Data Analytics Process Automation"	Career Talk	16-05-2024	Dhaval Doshi, Assistant Vice President, JP Morgan Chase&Co
11	"Career Opportunities in Robotics Process Automation"	Career Talk	31-05-2024	Pramit Mall, Senior Technology Specialist, Tesco

Global and Regional Highlights:

Global Electrical Highlights – 2023

1. Clean Energy Momentum

- **Renewables surged ahead:** In 2023, renewables—led by solar, wind, and hydro—accounted for roughly 30% of global electricity generation, while low-carbon sources (including nuclear) contributed nearly 40% .
- **Zero-carbon electricity exceeded 40%:** Bloomberg NEF reported zero-carbon sources (renewables + nuclear) made up over 40% of global electricity, with solar and wind accounting for 17%, and hydro + nuclear covering 24% The Wall Street Journal.
- **Solar and wind dominated new capacity:** Over 90% of new capacity in 2023 came from solar and wind The Wall Street Journal.
- **Growth led by China:** China contributed 55% of global renewable capacity additions, outperforming the rest of the world combined The Wall Street Journal Reddit.

2. Rapid Expansion in PV Installations

- **Global PV boom:** Trend Force estimated Asia-Pacific would add ~202.5 GW of PV in 2023—growing over 55% year-on-year—with significant contributions from China, Malaysia, and the Philippines. Europe also expected to grow by ~39.7% (~68.6 GW), and the Americas by ~65.2% (~64.6 GW). Middle East & Africa added ~14.9 GW, up ~49.5% Reddit.

3. Electricity Demand & Emissions

- **Global electricity demand rose by 627 TWh,** equivalent to adding another Canada, though growth was modest at ~2.2% Reddit.
- **Emerging markets and emissions concerns:** While renewables grew, some regions still leaned heavily on coal. For instance, Bangladesh nearly doubled its coal generation to 17 TWh in 2023, raising power sector emissions to ~60 million tons of CO₂ Reuters.
- **Europe milestones:** Fossil fuel share in Europe dropped below 70% for the first time since the industrial age Reddit.

Regional Highlights – 2023

Asia-Pacific

- **A global leader in production:** Asia-Pacific produced over 50% of the world's electrical equipment and showed the fastest growth, with a projected ~7.8% CAGR driven by urbanization and industrialization GitnuxDataHorizzon Research.
- **Installed capacity strong:** The region added more than 200 GW annually, led by China (2,650 GW) and India (430 GW) Market Growth Reports.

- India's solar explosion: India added 18 TWh of solar generation—ranking 4th globally—and increases solar electrical output 17-fold since 2015 Vajiram & Ravi.

Europe

- Substantial renewable capacity: Europe reached 1,150 GW installed capacity, with over 520 GW from renewables—wind (250 GW) and solar (230 GW) Market Growth Reports.
- Grid integration advances: Europe accelerated cross-border interconnection projects across over 20 countries Market Growth Reports.

United States

- Clean energy support: The Inflation Reduction Act (IRA) provided a massive push for renewables via tax incentives International Energy Agency.
- Renewable growth: More than 26 GW of renewable capacity were added in 2023—Texas led in wind, and California led in solar Market Growth Reports.

Middle East & Africa

- Solar investments ramped up: Capacity surpassed 400 GW, driven by megaprojects like Egypt's Benban Solar Park (1.65 GW) and rural electrification gains—Morocco at 99%, Kenya over 75% Market Growth Reports.

Sector & Industry Trends

Electrical Services & Grid Modernization

- North America leads: Holds 35% of the electrical services market, driven by grid modernization DataHorizon Research.
- Contracted services dominate, and industrial usage remains the highest revenue segment (38%), while installation projects account for 42% DataHorizon Research.

Market Outlook & Future Growth

- Electrical equipment market is projected to reach \$1.18 trillion by 2025 ZipDo.
- Smart grid market forecasted at \$119 billion by 2025 ZipDo.
- LED adoption growing with 13.2% CAGR through 2030 ZipDo.
- EV charging infrastructure expected to surpass 2 million units globally by 2030 ZipDo.

Innovation & Safety

- UK's home energy storage: Battery installations grew 1,700% in 2023, with the pipeline reaching 84.8 GW—creating demand for skilled installers Reddit.

- Advanced detection tech: AI is being leveraged to predict and detect arc faults in electrical distribution, enhancing safety and reliability arXiv.
- AI in construction: Intelligent systems optimize energy use on construction sites, boosting energy efficiency while enhancing safety arXiv.

Summary Table

Theme	Highlight
Global Trends	Renewables reached ~30% share; zero-carbon >40%; solar/wind dominated capacity additions
Asia-Pacific	>50% of electrical equipment produced; rapid PV and overall capacity growth
Europe	Strong renewable installations and grid interconnectivity
USA	IRA-driven growth, strong wind and solar additions
Middle East & Africa	Major solar projects and electrification gains
Industry Trends	Smart grid, LED, EV charging, AI safety tech rising, home battery boom

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