



KALLAM HARAMADHAREDDY INSTITUTE OF TECHNOLOGY

Affiliated to JNTU Kakinada, accredited by NBA, Accredited by NAAC
with A Grade

CHOWDAVARAM (POST), GUNTUR, ANDHRA PRADESH-522019

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QUATERLY- NEWSLETTER

OCTOBER 2K22-DECEMBER 2K22

**Department of Electrical and
Electronics Engineering**

INSIDE THIS ISSUE:

- **About College**
- **Department Vision**
- **Department Mission**
- **Editorial Board**
- **Student Achievements**
- **Faculty Achievements**
- **Student workshops and guest lecturers**
- **Tech news**

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.



Department Vision:

To produce globally competent man power which can contribute to the development and welfare of the society by meeting the needs of both the nation and the international community to empower the students to become technologically vibrant , innovative and emotionally matured and to train them to face the challenges of the quality conscious globalized world economy

Department Mission:

- To create educational opportunities to the predominantly agrarian society in and around guntur
- To provide an environment most conducive to learning and to create a stimulating intellectual atmosphere on campus
- To achieve academic excellence
- To support economically weak students to pursue education
- To establish partnership between institution and industry

Editorial Board:

Chief Editor:

Dr.L.Shanmukharao, HOD, EEE

Editors:

Dr. K. Hari Krishna, Professor, EEE

Dr. P.P. Sharma,

Professor, EEE

Faculty Members:

Mr. M. V. N. Murthy,

Asst. Prof., EEE,

Mr. J. Sunil Babu,

Asst. Prof., EEE.

Student Members:

Koppolu Mahesh (IV-EEE).

Gaddam Shankari (III EEE)

Bellamkonda Deepthi (II EEE)

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	198X1A0208	Goddanti Amulya	Paper Presentation	Engineers Day , 14 Th Sep 2022	Potti Sriramulu Chalavadi Mallikarjuna Rao College of Engineering & Technology	3 rd Prize	State – within
2	198X1A0227	Thammisetty Gopi	Paper Presentation	Sparks Intelligentia 2022, 16-03-2023 To 19-03-2022	Malla Reddy Engineering College,	Participation	State – outside
3	208X5A0201	Ajay Babu Neelam	Technical Quiz	Sparks Intelligentia 2022, 16-03-2023 To 19-03-2022	Malla Reddy Engineering College	Participation	State – outside
4	208X5A0212	Sakila Venkata Sakethnath	Paper Presentation	Engineers Day , 14 Th Sep 2022	Potti Sriramulu Chalavadi Mallikarjuna Rao College of Engineering & Technology	3 rd Prize	State – within
5	208X1A0220	Marri Triveni	Paper Presentation	Engineers Day , 14 Th Sep 2022	Potti Sriramulu Chalavadi Mallikarjuna Rao College of Engineering & Technology	Participation	State – within
6	208X1A0227	Nimmala Naveen	Paper Presentation	Engineers Day , 14 Th Sep 2022	Potti Sriramulu Chalavadi Mallikarjuna	Participation	State – within

					Rao College of Engineering & Technology		
7	218X5A0204	Kollipaka John Deva Prabhudas	Technical Quiz	Engineers Day , 14 Th Sep 2022	Potti Sriramulu Chalavadi Mallikarjuna Rao College of Engineering & Technology	Participation	State – within
8	218X1A0204	Gaddam Kavitha	Paper Presentation	Engineers Day , 14 Th Sep 2022	Potti Sriramulu Chalavadi Mallikarjuna Rao College of Engineering & Technology	Participation	State – within
9	218X1A0208	Jaswanth Guntupalli	Technical Quiz	Engineers Day , 14 Th Sep 2022	Potti Sriramulu Chalavadi Mallikarjuna Rao College of Engineering & Technology	Participation	State – within
10	228X5A0205	Gangavarapu Sangeetha	Technical Quiz	Engineers Day , 14 Th Sep 2022	Potti Sriramulu Chalavadi Mallikarjuna Rao College of Engineering & Technology	Participation	State – within
11	228X5A0208	Induri Venkatesh	Paper Presentation	Engineers Day , 14 Th Sep 2022	Potti Sriramulu Chalavadi Mallikarjuna Rao College of Engineering	Participation	State – within

					& Technology		
12	228X5A0225	Pulivarthi Akash	Technical Quiz	Engineers Day , 14 Th Sep 2022	Potti Sriramulu Chalavadi Mallikarjuna Rao College of Engineering & Technology	Participa tion	State – within

Faculty Achievements:

- List of Publications:**

S. No	Name of the Author/s	Title of Paper	Name of the Journal	Month & Year of Publications	ISSN /DOI Number	Remarks
1	Dr. K. Hari Krishna	ANFIS-GA based hybrid control method for enhancement of DC micro grids using electric spring	Mathematical Statistician and Engineering Applications	AUG 2022	ISSN: 2094-0343	Scopus
2	Dr. K. Hari Krishna	Electric spring-based voltage control of DC micro-grids using intelligent controllers	International Journal of Intelligent Systems and Applications in Engineering	NOV 2022	ISSN: 2147-6799	Scopus
3	Dr. G. Kishor Babu	Analysis of battery management system for electric vehicles	Mukt Shabd Journal	JUNE 2023	ISSN: 2347-3150	UGC

- List of Conferences:**

S. No	Name of the Faculty	Name of the Conference	Date & Year	Organizing Institution
1	Dr. K. Hari Krishna	Power Quality Enhancement in DC Microgrids by Model Predictive Control of Electric Springs	04-08-2022 to 06-08-2022	Vellore Institute of Technology, Vellore

2	Dr. L. Shanmukha Rao	IoT Based Event Logger for Railway Systems	07-11-2022 to 11-11-2022	Central University of Haryana
3	Dr. L. Shanmukha Rao	IoT Based Interlocking System for Modern Electric Railway System	07-11-2022 to 11-11-2022	Central University of Haryana
4	Dr. L. Shanmukha Rao	An Improved System Performance Using ANN-FUZZY Logic and MSHO Control for BES-Solar PV and Wind Plant Based Micro-Grid System	25-08-2022 to 26-08- 2022	College of Engineering Perumon, Kollam, Kerala
5	Dr. L. Shanmukha Rao	Improved Power Quality SOGI Based Grid Integrated PV System under Abnormal Conditions by using Interweaved GI	21-07-2022 to 23-07- 2022	Sreenidhi Inst. of Science & Tech, Hyderabad, India
6	Dr. L. Shanmukha Rao	Power Quality Enhancement Based on a Recursive Digital Filter by Using Cascaded Distributed Grid-Solar PV System	21-07-2022 to 23-07- 2022	Sreenidhi Inst. of Science & Tech, Hyderabad, India
7	Dr. L. Shanmukha Rao	Design of Novel Non-Isolated Modified SEPIC Converter Based Onboard PEV Charger	21-07-2022 to 23-07- 2022	Sreenidhi Inst. of Science & Tech, Hyderabad, India
8	Dr. L. Shanmukha Rao	A Solar-PV/BESS Powered Multi-Input DC-DC Boost Converter Fed BLDC Motor Drive	21-07-2022 to 23-07- 2022	Sreenidhi Inst. of Science & Tech, Hyderabad, India
9	Dr. L. Shanmukha Rao	A Solar-PV Integrated Novel Reduced-Switch UPQC Device for Power-Quality Improvement	21-07-2022 to 23-07- 2022	Sreenidhi Inst. of Science & Tech, Hyderabad, India
10	Dr.P.P. Sharma	An Improved System Performance Using ANN-FUZZY Logic and MSHO Control for BES-Solar PV and Wind Plant Based Micro-Grid System	25-08-2022 to 26-08- 2022	College of Engineering Perumon, Kollam, Kerala
11	Mr. M. V. N. Murthy	Design of Novel Non-Isolated Modified SEPIC Converter Based Onboard PEV Charger	21-07-2022 to 23-07- 2022	Sreenidhi Inst. of Science & Tech, Hyderabad, India

• **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	webinar	Software tools for scientific research with emphasis on drafting documents using latex	30/09/2022	30/09/2022	Potti Sriramulu Chalavadi Mallikarjuna Rao College of Engineering & Technology
2	Dr. K. Hari Krishna	FDP	Recent advances in cyber physical power system and smart grid	08/05/2023	13/05/2023	ANURAG University
3	Dr. L. Shanmukharao	STTP	Design, implementation and control of electrical systems using MATLAB	03/01/2023	07/01/2023	Bapatla Engineering College
4	Dr. G. Kishor Babu	STTP	Design, implementation and control of electrical systems using MATLAB	03/01/2023	07/01/2023	Bapatla Engineering College
5	Dr.P.P. Sharma	FDP	Advanced technologies in electrical engineering research	01/08/2022	05/08/2022	Sai Ram Institute of Technology
6	Mr. R. Subbareddy	FDP	Advanced technologies in electrical engineering research	01/08/2022	05/08/2022	Sai Ram Institute of Technology
7	Mr.M.V.N. Murthy	FDP	Recent advances in cyber physical	08/05/2023	13/05/2023	ANURAG University

			power system and smart grid			
8	Mr.V. Rajesh	FDP	Advanced technologies in electrical engineering research	01/08/2022	05/08/2022	Sai Ram Institute of Technology
9	Mr.P. Venubabu	webinar	Software tools for scientific research with emphasis on drafting documents using latex	30/09/2022	30/09/2022	Potti Sriramulu Chalavadi Mallikarjuna Rao College of Engineering &Technology
10	Mr.P. Venubabu	Worksh op	How to get the most out of being a reviewer of scientific articles	10/08/2022	10/08/2022	ELSEVIER
11	Mr.M. Ranjith Kumar	FDP	Advanced technologies in electrical engineering research	01/08/2022	05/08/2022	Sai Ram Institute of Technology
12	Mr..M. Ranjith Kumar	webinar	Software tools for scientific research with emphasis on drafting documents using latex	30/09/2022	30/09/2022	Potti Sriramulu Chalavadi Mallikarjuna Rao College of Engineering &Technology
13	Mr.M. Ranjith Kumar	FDP	Recent advances in cyber physical power system and smart grid	08/05/2023	13/05/2023	ANURAG University
14	Mr.M. Ranjith Kumar	Worksh op	How to get the most out of being a reviewer of scientific articles	10/08/2022	10/08/2022	ELSEVIER

15	Mr.M. Ranjith Kumar	Worksh op	Face challenges on future technologies	23/12/2022	23/12/2022	R.V.R&J.C
16	Mr.M. Ranjith Ku mar	Worksh op	Recent trends and challenges in power system transition	28/03/2023	29/03/2023	Dr.YSR A.N.U College of Engineering & Technology
17	Mrs. P. Kavitha	FDP	Recent advances in cyber physical power system and smart grid	08/05/2023	13/05/2023	ANURAG University
18	Mr.K.Nagara ju	FDP	Recent advances in cyber physical power system and smart grid	08/05/2023	13/05/2023	ANURAG University
19	Mr. D. Sambhasiva Rao	STTP	Design, implementation and control of electrical systems using MATLAB	03/01/2023	07/01/2023	Bapatla Engineering College
20	Mrs. P. Naga divya	FDP	Recent advances in cyber physical power system and smart grid	08/05/2023	13/05/2023	ANURAG University
21	Mrs. SK. Kousar Sana	Worksh op	How to get the most out of being a reviewer of scientific articles	10/08/2022	10/08/2022	ELSEVIER
22	Mrs. P. Naga Jyothi	Worksh op	Face challenges on future technologies	23/12/2022	23/12/2022	R.V.R&J.C
23	Dr. M. S. Naik	Worksh op	Recent trends and challenges in power system transition	28/03/2023	29/03/2023	Dr.YSR A.N.U College of Engineering & Technology

24	Mr. D. Sambhasiva Rao	Workshop	Innovation entrepreneurship and start-up for young	26/09/2022	30/09/2022	National institute of technology, Mizoram
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➤ **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	12.09.2022 TO 17.09.2022	Mr. B. Mahidhar, Trainer, APSSDC, Vijayawada, Andhra Pradesh
2	Guest Lecture on “Electrical Traction”	Guest Lecture	8.07.2022	Dr. CH. Nagaraja Kumari, Professor, Guru Nanak Institute of Technology, Hyderabad
3	“Celonis Skilling Trends Trajectories and Career Opportunity in Infosys”	Career Talk	22-07-2022	1 Ngoc Anh Ngo, Academic Alliance Manager, Celonis 2 Hodson Mc Farland, Associate Client Engagement Manager, Infosys
4	“Career Opportunities with Juniper Networks”	Career Talk	01-08-2022	Pawan Mellacheruvu, Technical Training Consultant, Juniper Networks
5	“Salesforce Internship & Future Skills Prime”	Awareness Session	12-08-2022	Satish Datla Deputy Director NASSCOM – Futureskills prime
6	“Cyber Security Awareness Programme on Countering Cyber Attacks & Cyber Frauds”	Awareness Session	07-09-2022	Mr. Vedant Narayan CERT-In, Delhi
7	"Winning Tactics for Placement Exams Across India"	Awareness Session	23-10-2022	Mr. V. Sreenivasa Reddy, Senior Recruitment Manager and Location Head, Vijayawada, Tech Mahindra Ltd.
8	"Navigating the Path: Classroom Lessons to Corporate Success"	Awareness Session	15-07-2022	Amit Saha, Deputy Director ExceLR, Bangalore

➤ **Tech news:**

Key Global / AI / Tech Events Oct-Dec 2022

1. ChatGPT & Generative AI Explosion

- OpenAI launched *ChatGPT* in November 2022 (based on GPT-3.5), which very quickly gained widespread public traction. Intellizence | +2Forbes+2
- Alongside, tools like MidJourney and DALL-E 2 also became prominent in public discourse and use. Forbes+1

2. Export Controls & Semiconductor Policy

- The U.S. introduced export control restrictions in October 2022 targeting advanced computing and semiconductor manufacturing items, particularly to restrict certain high-end chips and equipment going to China. Covington & Burling+2Intellizence | +2
- The October 7, 2022 rule (and subsequent related updates) expanded control over semiconductor manufacturing and supercomputer usage. Covington & Burling+1

3. India-Tech / Policy / Infrastructure Moves

- India Mobile Congress (IMC 2022) held in early October in New Delhi. It was a large gathering focused on “New Digital Universe,” including strong emphasis on 5G use cases, connectivity, and showcasing indigenous telecom/ICT capabilities. The Prime Minister launched or flagged 5G-Non-Standalone Core developments, etc. Wikipedia
- The supercomputer facility PARAM Kamrupa (in Assam) was inaugurated in October 2022 – part of India’s push under its National Supercomputing Mission (NSM). Wikipedia
- In October 2022, PE / VC (Private Equity / Venture Capital) investments in India’s technology sector stood at about US\$157 million across 12 deals. IBEF

4. Academic / Research Innovations

- There was research such as *An AI-Powered VVPAT Counter* for elections in India, using image processing & ML to speed up the counting of VVPATs (voter-verified paper audit trail). Published December 2022. arXiv

5. Reflections & Retrospectives

- By end-2022, many analysts / publications reflected on how dominant generative AI had become (ChatGPT, image generation tools) and what that implied for privacy, misinformation, content ownership, regulation, etc. Forbes+2Intellizence | +2

- Inauguration of PARAM Kamrupa, adding supercomputing capacity in the northeast (Assam) as part of India's expanding high-performance computing infrastructure. Wikipedia
 - The India Mobile Congress 2022 which besides being a tech/demo event, also showcased India's ambitions in connectivity, telecom, indigenous core components, 5G, etc. Wikipedia
 - Investment flow: although not huge compared to later years, there was still active VC/PE activity; the US\$157M in October 2022 across deals shows ongoing interest in India's tech sector. IBEF
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Trends & Implications from that Period

- Generative AI goes mainstream: The launch of ChatGPT and rapid uptake of image generation tools marked a shift — AI moved from primarily research/industrial to consumer / general-public awareness and usage.
- Regulatory pressure begins: With powerful AI models becoming accessible broadly, governments & institutions started talking more seriously about export controls, IP, misinformation, content moderation. The export control actions by the U.S. reflect the geopolitical importance of AI and semiconductors.
- Infrastructure investment: Supercomputing, data centers, high-performance computing (HPC) was being built out (India's PARAMs etc.). These are required to sustain large-scale AI / ML behind-the-scenes.
- Bridging digital divide & adoption: Events like India Mobile Congress show that governments see connectivity, telecom infrastructure, and access as important pillars in enabling broader adoption of new technologies (5G etc.).
- Research addressing local problems: Projects like AI-powered VVPAT counters reflect focus on applying AI / ML to practical local / governmental issues (improving election process, etc.).