Volume 1, Issue 1: A.Y-2022-23
JULY 2K22-JUNE 2K23

TECHNOLOID 2K22

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

INSIDE THIS MAGAZINE:

- **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.

Hod's Desk:

:

It is with immense pleasure that I am announcing the inaugural issue of the Electrical and Electronics Department Bulletin of ELITE. Our endeavor is to bring out the manifold talents of EEE faculty members and students by encouraging their contributions in the form of articles that bring to light the latest developments in this field.

In today's fast paced world, keeping abreast of the progress of the world is necessary to be successful and so the bulletin aims to incorporate recent advances in Electrical technology. Apart from these, this bulletin will chronicle the laurels, achievements and milestones of the ELUXTRA fraternity.

Wishing the department venture all the luck for a quantum leap!!!

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. L. Shanmukha Rao	Professor	Ph. D	Power Systems	01.06.2016
2	Dr. K. Hari Krishna	Associate Professor	Ph. D	Power Systems	05.06.2014

3	Dr. G. Kishor Babu	Professor	Ph. D	Control Systems	08.08.2022
4	Mr. P. P. Sharma	Assistant Professor	M.Tech (Ph. D)	High Voltage Engineering	03.06.2013
5	Mr. 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	Mrs. P. Naga Jyothi	Assistant Professor	M.Tech	Power Electronics	01.06.2019
15	Mrs. SK. Kousar Sana	Assistant Professor	M.Tech	Power Electronics & Drives	01.06.2019
16	Mrs. T. Kalyani	Assistant Professor	M.Tech	Power Systems	01.07.2018
17	Mr. A. Panduranga Rao	Assistant Professor	M.Tech	Power Electronics & Electrical Drives	05.06.2017
18	Mr. K. Nagaraju	Assistant Professor	M.Tech	Instrumentation & Control Systems	01.06.2011

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	198X1A0203	Challa Jeevithesh	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhareddy Institute of Technology	Participation	State – within
2	198X1A0205	Chimata Ajay Kumar	Paper Presentation	Sparks Intelligentia 2022, 16-03-2023 To 19-03-2022	Malla Reddy Engineering College	Participation	State – outside
3	198X1A0206	Dosakayalapati Sravani	Paper Presentation	National Science Day,28 Th Feb 2023	MIC College of Technology	Participation	State – within
4	198X1A0208	Goddanti Amulya	Paper Presentation	Engineers Day , 14 Th Sep 2022	Potti Sriramulu Chalavadi Mallikarjuna Rao College of	3rd Prize	State – within

					Engineering & Technology		
5	198X1A0209	Gontla Kalpana Sri	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhareddy Institute of Technology	Participation	State – within
6	198X1A0216	Nimmakayala Subbareddy	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhareddy Institute of Technology	Participation	State – within
7	198X1A0219	Polipogu Swarna Jyothi	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhareddy Institute of Technology	Participation	State – within
8	198X1A0222	Raprolu Vaishnavi Sri Mowkthika	Paper Presentation	National Science Day,28 Th Feb 2023	MIC College of Technology	Participation	State – within
9	198X1A0223	Sadaraboyina Vijaya Prasanna Kumar	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhareddy Institute of Technology	Participation	State – within
10	198X1A0225	Shaik Sabiha	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhareddy Institute of Technology	Participation	State – within
11	198X1A0227	Thammisetty Gopi	Paper Presentation	Sparks Intelligentia 2022, 16-03-2023 To 19-03-2022	Malla Reddy Engineering College,	Participation	State – outside
12	208X5A0201	Ajay Babu Neelam	Technical Quiz	Sparks Intelligentia 2022, 16-03-2023 To 19-03-2022	Malla Reddy Engineering College	Participation	State – outside

13	208X5A0205	Dharam Surendra	Paper Presentation	National Science Day,28 Th Feb 2023	MIC College of Technology	Participation	State – within
14	208X5A0208	Maddiguntla Bhavani Shankar	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhareddy Institute of Technology	1st Prize	State – within
15	208X5A0210	Raj Kumar Prathipati	Paper Presentation	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhareddy Institute of Technology	1st Prize	State – within
16	208X5A0212	Sakila Venkata Sakethnath	Paper Presentation	Engineers Day , 14 Th Sep 2022	Potti Sriramulu Chalavadi Mallikarjuna Rao College of Engineering & Technology	3rd Prize	State – within
17	208X5A0214	Sangu Bala Pushpa Latha	Paper Presentation	National Science Day,28 Th Feb 2023	MIC College of Technology	Participation	State – within
18	208X5A0215	Shaik Nazmuddin	Paper Presentation	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhareddy Institute of Technology	1st Prize	State – within
19	208X5A0218	Thamidala Sadasivareddy	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhareddy Institute of Technology	Participation	State – within
20	208X1A0202	Bathula Sri Manikanta	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhareddy Institute of Technology	2nd Prize	State – within

21	208X1A0205	Bhimi Reddy Sai Vighnesh Reddy	Paper Presentation	National Science Day,28 Th Feb 2023	MIC College of Technology	2nd Prize	State – within
22	208X1A0206	Bontha Venkata Naga Mani Krishna Achyuth	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhareddy Institute of Technology	Participation	State – within
23	208X1A0208	Busireddy Mounica	Technical Quiz	National Science Day,28 Th Feb 2023	MIC College of Technology	Participation	State – within
24	208X1A0212	Gattu Sandhya Rani	Technical Quiz	Sparks Intelligentia 2022, 16-03-2023 To 19-03-2022	Malla Reddy Engineering College	Participation	State – outside
25	208X1A0215	Jakkireddy Prasanna Lakshmi Reddy	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhareddy Institute of Technology	Participation	State – within
26	208X1A0216	Kanamarlapudi Venkata Pavana Lakshmikumari	Technical Quiz	Sparks Intelligentia 2022, 16-03-2023 To 19-03-2022	Malla Reddy Engineering College	Participation	State – outside
27	208X1A0219	Kommareddy Sambi Reddy	Paper Presentation	National Science Day,28 Th Feb 2023	MIC College of Technology	2nd Prize	State – within
28	208X1A0220	Marri Triveni	Paper Presentation	Engineers Day , 14 Th Sep 2022	Potti Sriramulu Chalavadi Mallikarjuna Rao College of Engineering & Technology	Participation	State – within

29	208X1A0222	Mellempudi Vikram	Poster	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhare ddy Institute of Technology	1st Prize	State – within
30	208X1A0225	Mule Venkata Vinod Reddy	Technical Quiz	National Science Day,28 Th Feb 2023	MIC College of Technology	Participa tion	State – within
31	208X1A0227	Nimmala Naveen	Paper Presentation	Engineers Day , 14 Th Sep 2022	Potti Sriramulu Chalavadi Mallikarjuna Rao College of Engineering & Technology	Participa tion	State – within
32	208X1A0228	Onteddu Hari Priya	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhare ddy Institute of Technology	Participa tion	State – within
33	208X1A0231	Ramisetty Hemanth Kumar	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhare ddy Institute of Technology	Participa tion	State – within
34	208X1A0233	Sagabandi Lavanya	Technical Quiz	National Science Day,28 Th Feb 2023	MIC College of Technology	Participa tion	State – within
35	208X1A0236	Shaik Sameer Basha	Poster	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhare ddy Institute of Technology	1st Prize	State – within
36	208X1A0238	Tari Mahesh	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhare ddy Institute of Technology	Participa tion	State – within

37	208X1A0239	Thontla Nagarjuna Reddy	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhare ddy Institute of Technology	Participa tion	State – within
38	208X1A0241	Vottem Sanjay Kumar	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhare ddy Institute of Technology	Participa tion	State – within
39	218X5A0202	Jinkala Pavan Kalyan	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhare ddy Institute of Technology	Participa tion	State – within
40	218X5A0204	Kollipaka John Deva Prabhudas	Technical Quiz	Engineers Day , 14 Th Sep 2022	Potti Sriramulu Chalavadi Mallikarjuna Rao College of Engineering & Technology	Participa tion	State – within
41	218X5A0206	Orsu Sai Gowtham	Technical Quiz	Sparks Intelligentia 2022, 16-03-2023 To 19-03-2022	Malla Reddy Engineering College	Participa tion	State – outside
42	218X5A0212	M .Manideep	Technical Quiz	National Science Day,28 Th Feb 2023	MIC College of Technology	Participa tion	State – within
43	218X1A0201	Adapa Mani Krishna	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhare ddy Institute of Technology	Participa tion	State – within
44	218X1A0202	Beluguri Venkata Krishna Vinay	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhare ddy Institute of Technology	Participa tion	State – within

45	218X1A0204	Gaddam Kavitha	Paper Presentation	Engineers Day , 14 Th Sep 2022	Potti Sriramulu Chalavadi Mallikarjuna Rao College of Engineering & Technology	Participation	State – within
46	218X1A0208	Jaswanth Guntupalli	Technical Quiz	Engineers Day , 14 Th Sep 2022	Potti Sriramulu Chalavadi Mallikarjuna Rao College of Engineering & Technology	Participation	State – within
47	218X1A0210	Kotha Venkata Ramya	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhareddy Institute of Technology	Participation	State – within
48	218X1A0218	Sanagapalli Gopichand	Technical Quiz	National Science Day,28 Th Feb 2023	MIC College of Technology	Participation	State – within
49	218X1A0222	Tiragabattina Neelampati Parameswararao	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhareddy Institute of Technology	Participation	State – within
50	218X1A0225	Jatothu Bhuvaneswari Bai	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhareddy Institute of Technology	Participation	State – within
51	228X5A0201	Beerakayala Hareesh	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhareddy Institute of Technology	Participation	State – within

52	228X5A0205	Gangavarapu Sangeetha	Technical Quiz	Engineers Day , 14 Th Sep 2022	Potti Sriramulu Chalavadi Mallikarjuna Rao College of Engineering & Technology	Participation	State – within
53	228X5A0208	Induri Venkatesh	Paper Presentation	Engineers Day , 14 Th Sep 2022	Potti Sriramulu Chalavadi Mallikarjuna Rao College of Engineering & Technology	Participation	State – within
54	228X5A0211	Kakumanu Pradeep Kumar	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhareddy Institute of Technology	Participation	State – within
55	228X5A0222	Pasupuleti Venkatesh	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhareddy Institute of Technology	Participation	State – within
56	228X5A0225	Pulivarthi Akash	Technical Quiz	Engineers Day , 14 Th Sep 2022	Potti Sriramulu Chalavadi Mallikarjuna Rao College of Engineering & Technology	Participation	State – within
57	228X5A0227	Saikam Yaswanth Varma	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhareddy Institute of Technology	Participation	State – within

58	228X5A0230	Tiruveedhula Sunil Kumar	Technical Quiz	Samkalp2k24 -22 & 23 April 2022	Kallam Haranadhareddy Institute of Technology	Participation	State – within
59	198X1A0216	Nimmakayala Subbareddy	Paper Presentation	Sparks Intelligentia 2022, 16-03-2023 To 19-03-2022	Malla Reddy Engineering College	Participation	State – outside
60	198X1A0219	Polipogu Swarna Jyothi	Paper Presentation	Sparks Intelligentia 2022, 16-03-2023 To 19-03-2022	Malla Reddy Engineering College	Participation	State – outside
61	198X1A0222	Raprolu Vaishnavi Sri Mowkthika	Paper Presentation	Explorer's Meet 2k22, 26-03-2022	SRK Institute of Technology Vijayawada	Participation	State – within
62	208X5A0217	Tarri Mahesh	Paper Presentation	Sparks Intelligentia 2022, 16-03-2023 To 19-03-2022	Malla Reddy Engineering College	Participation	State – outside
63	208X5A0219	Thota Syam Kumar	Paper Presentation	Explorer's Meet 2k22, 26-03-2022	SRK Institute of Technology Vijayawada	Participation	State – within
64	208X1A0202	Bathula Sri Manikanta	Paper Presentation	Sparks Intelligentia 2022, 16-03-2023 To 19-03-2022	Malla Reddy Engineering College	Participation	State – outside
65	208X1A0205	Bhimi Reddy Sai Vighnesh Reddy	Paper Presentation	Explorer's Meet 2k22, 26-03-2022	SRK Institute of Technology Vijayawada	Participation	State – within
66	208X1A0240	Vanga Divya Teja	Paper Presentation	Sparks Intelligentia 2022, 16-03-2023 To 19-03-2022	Malla Reddy Engineering College	Participation	State – outside

67	218X5A0201	Gampa Sairam	Paper Presentation	Explorer's Meet 2k22, 26-03-2022	SRK Institute of Technology Vijayawada	Participation	State – within
68	218X5A0203	Koka Charitha	Paper Presentation	Explorer's Meet 2k22, 26-03-2022	SRK Institute of Technology Vijayawada	Participation	State – within
69	218X5A0205	Lankapalli Naga Yaswanth	Paper Presentation	Sparks Intelligentia 2022, 16-03-2023 To 19-03-2022	Malla Reddy Engineering College	Participation	State – outside
70	218X5A0206	Orsu Sai Gowtham	Paper Presentation	Explorer's Meet 2k22, 26-03-2022	SRK Institute of Technology Vijayawada	Participation	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	Sreenidhi Inst. of Science & Tech, Hyderabad, India

			23-07- 2022	
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 power system and smart grid	08/05/2023	13/05/2023	ANURAG University
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	Workshop	How to get the most out of being a reviewer	10/08/2022	10/08/2022	ELSEVIER

			of scientific articles			
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	Workshop	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	Workshop	Face challenges on future technologies	23/12/ 2022	23/12/ 2022	R.V.R&J.C
16	Mr.M. Ranjith Ku mar	Workshop	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.Naga raju	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	Workshop	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	Workshop	Face challenges on future technologies	23/12/2022	23/12/2022	R.V.R&J.C
23	Dr. M. S. Naik	Workshop	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

- **Student workshops and guest lecturers:**

S. No	Name of the Event Organized	Event Type	Date	Resource Person with Affiliation
1	One week workshop on "SCADA Training" in assosciation with APSSDC	Workshop	02.01.2023 TO 07.01.2023	Mr. B. Mahidhar, Trainer, APSSDC, Vijayawada, Andhra Pradesh
2	"Nationwide Placement Success: Tips and Techniques"	Awareness Session	19-02-2023	Mr. N. Venkata Reddy, CEO, Techteam Solutions
3	"The Career Shift: Preparing for Corporate Excellence"	Awareness Session	16-03-2023	P. Uday Teja, Software Engineer, HCL

4	"Career Opportunities in Synechron"	Career Talk	27-05-2023	Ranjana Sagar, Associate Director(Recruitment), Synechron

Global and Regional Highlights:

Global Electrical Highlights – 2022

1. Record Generation Growth

Global electricity generation rose by about 2.4% in 2022—an increase of nearly 700 TWh—keeping pace with the five-year average growth rate.International Energy Agency

2. Emissions Hit All-Time High

CO_2 emissions from the power sector reached a new peak in 2022, totaling approximately 14.8 Gt, marking a 1.5% increase year-on-year. This was propelled by a shift from gas to coal in response to soaring natural gas prices.International Energy Agency

3. Coal and Renewables Drive the Surge

- Coal-fired electricity grew by nearly 2% (≈185 TWh), sustaining its place at roughly 36% of global generation.International Energy AgencyGitnux
- Renewable energy output surged beyond 8,500 TWh, up almost 8% (~600 TWh) from 2021, with wind and solar leading the way. Clean energy's share climbed to nearly 30%, growing by 1.5 percentage points over the previous year.International Energy AgencyGitnux

4. Wind and Solar Set New Milestones

- Solar + Wind combined contributed 12% of global electricity by end of 2022—an all-time high.EmberEmber
- Solar delivered a record 245 TWh (24% year-over-year increase), while wind added 312 TWh.Ember
- This record output helped bring electricity carbon intensity to a record low of about 436 g CO_2/kWh—the cleanest global electricity ever recorded.EmberEmber

5. Electrification, Demand, and Demand Growth

- Global electricity demand has nearly doubled since 2000, rising from ~14,972 TWh to 28,510 TWh in 2022.Ember
- Much of this recent demand increase has been met by coal, particularly in rapidly growing economies.Ember

6. First Half 2022: Renewables Meet All Demand Growth

In the first half of 2022 alone, renewables (wind, solar, hydro) increased supply by 416 TWh, slightly exceeding the 389 TWh rise in global electricity demand. This prevented any increase in coal and gas generation and cut an estimated 230 Mt CO_2 and $40 billion in fuel costs.Reddit+1

7. Market & Industry Trends

- Renewable energy accounted for nearly 29% of global electricity generation in 2022.Gitnux
- Hydropower remained the dominant renewable, comprising around 16% of global generation.Gitnux
- Global installed solar PV capacity surpassed 1 terawatt (TW)—about 2% of global electricity demand.Wikipedia
- The electrical equipment market was valued at about $1.4 trillion, with smart grid and storage segments growing rapidly.Gitnux

---

Summary Table

Category	2022 Highlights
Total Generation	+2.4% (~700 TWh)
CO_2 Emissions	Record high – 14.8 Gt
Coal Generation	+2%, still ~36% of total

Category	2022 Highlights
Renewables	+8% to >8,500 TWh, ~30% share
Wind + Solar	12% of total (record), cleanest ever
Solar Growth	+245 TWh (24%), wind +312 TWh
Carbon Intensity	Record low: 436 g CO_2/kWh
Demand Growth	Nearly doubled since 2000
H1 2022 Trend	Renewables met 100% of demand growth
Market Size	$1.4T electrical equipment market
Solar Capacity	>1 TW