ILLUMINATING IDEAS, POWERING INNOVATION
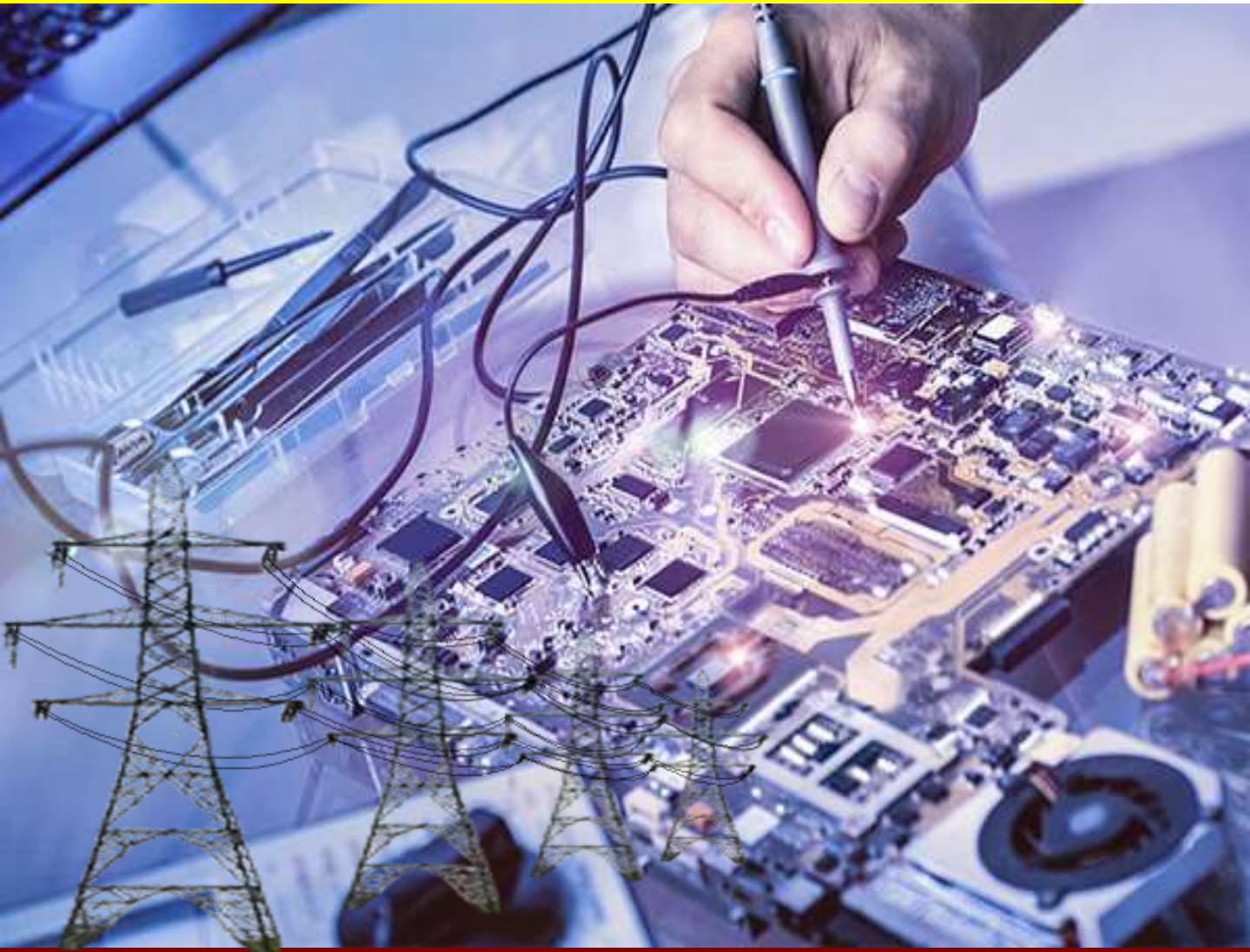
THE CURRENT CHRONICLE

NEWS LETTER — MAY, 2024

Department of Electrical and Electronics Engineering

MALLA REDDY ENGINEERING COLLEGE FOR WOMEN

Autonomous Institution – UGC, Govt. of India

Accredited by NAAC with 'A+' Grade

Programmes Accredited by NBA

National Ranking by NIRF Innovation - Rank band(151-300), MHRD, Govt. of India

Maisammaguda, Dhulapally, Secunderabad – 500 010, Telangana

FOUNDER CHAIRMAN'S MESSAGE

I congratulate the department of EEE MRECW for bringing out the issue of the prestigious yearly department **THE CURRENT CHRONICLE** Newsletter under A.Y: 2023-24, I am sure that the magazine will provide a platform to the students and faculty members to expand their technical knowledge and sharpen their hidden literary talent and will also strengthen the all round development of the students. I am hopeful that this small piece of literary work shall not only develop the taste for reading among students but also develop a sense of belonging to the institution as well. My congratulations to the editorial board who took the responsibility for the arduous task most effectively. I extend best wishes for the success of this endeavor.

Ch.Malla Reddy
Founder Chairman,MRGI
Hon'ble MLA,
Govt of Telangana State

PRINCIPAL'S MESSAGE

I extend my heartfelt congratulations to the Department of EEE, MRECW, for bringing out the esteemed **CURRENT CHRONICLE** Newsletter for the academic year 2023-24. This newsletter serves as an excellent platform for both students and faculty members to enhance their technical knowledge and discover their hidden literary talents. It will undoubtedly contribute to the overall development of our students. I am confident that this initiative will not only foster a love for reading but also cultivate a deeper sense of pride and belonging within our institution. My sincere appreciation goes to the editorial board for their dedication and effective execution of this challenging task.Wishing all the best for the continued success of this valuable endeavor.

Dr.Y.MadhaveeLatha
Principal

HOD'S MESSAGE

It is an occasion of great pride and satisfaction for the department EEE, MRECW to bring out the issue of the yearly department **THE CURRENT CHRONICLE** Newsletter under A.Y:2023-24, it gives me immense pleasure to note that the response to the ewsletter has- been over whelming. The wide spectrum of articles gives us a sense of pride that our students and faculties possess creative potential and original thinking in ample measures. Each article is entertaining interesting and absorbing. I applaud the contributors for their stimulated thoughts and varied hues in articles contributed by them.

Dr. S.Vijaya Madhavi
HOD ,EEE

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ABOUT THE DEPARTMENT

The Department of Electrical & Electronics Engineering is accredited by NBA, with an intake of 60 students. The Dept. has state of the art laboratories with latest software's like MATLAB, ORCAD, SCI LAB, PSPICE and Multisim. We have well qualified faculty members. Several faculty members have received their best teacher awards from institutions of International repute and have been working on research and development projects and regularly publish their work in international journals and conferences. EEE department faculty teams attained patent rights for their technological innovations. The Dept. established IEEE, ISTE student chapters under which it organizes National Level Technical Symposium -FUTURE SASTRA & State Level Technical Symposium- MEDHA every academic year.

The Dept. organized National conference on "Emerging Trends in Electrical Systems & Engineering" NCETESE, International Conference on "Emerging Trends in Electrical Systems & Engineering"(ICETESE) every year since 2014, The Dept. organizes Faculty Development Programmes, Refresher courses and workshops in different streams and Student Development Programmes like Workshops, intra college conferences, Industrial visits , Guest lectures and our students actively participate in hackathon programmes conduct at state and National level. Our students are actively participated and won prizes in curricular activities organized by other colleges. The Dept. also organizes regular student seminar sessions of two hours per week for I to IV B.Tech student to enhance their all-round performance.

The Dept. also offers value added certification Courses on oxford, Microsoft, CISCO certification through Oxford University, Microsoft Innovation Centre and CISCO Networking Academy respectively. The College Offers Campus Recruitment Training Programmes in collaboration with TIME and FACE Institutions. The Department also publishes the Registered Journal "International Journal of Research in Signal Processing, Computing and Communication-System Design (IJRSCSD) with an ISSN: 2395-3187.

Editorial Board

Vision

o Our vision is to empower future engineers with advanced technologies and innovative training, cultivating a dynamic learning environment that nurtures creativity, teamwork, and critical thinking. To equip students with the essential skills and knowledge to drive technological advancements, foster a sustainable future, and ensure their success while contributing to societal well-being.

Mission

M1 To establish a dynamic learning ecosystem that prioritizes experiential learning and interdisciplinary collaboration.

M2: : To equip future engineers with the skills and innovative solutions for success in industry, startups, and entrepreneurship, fostering creativity, critical thinking, and teamwork to drive progress and sustainability

M3: To provide a holistic technical education that fosters not only technical excellence but also in stills values of decency, dignity and discipline shaping engineers who contribute ethically to society and the profession

Program Outcomes

PO1 - Engineering knowledge
An ability to apply knowledge of Mathematics (including Probability & Statistics and Mathematical Foundation of Computer Science), Science, and Engineering.

PO2 - Problem analysis
An ability to design and conduct experiments, as well as to analyse and interpret data including hardware and software components

PO3 - Design / development of solutions
An ability to design a complex computing system or process to meet desired specifications and needs.

PO4 -Conduct investigations of complex problems
Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

PO5 - Modern tool usage
An ability to use the techniques, skills, and modern engineering tools necessary for engineeringpractice

PO6 - The engineer and society
An ability to understanding of professional, health, safety, legal, cultural and social responsibilities.

PO7 - Environment and sustainability
The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental and demonstrate the knowledge need for sustainable development.

PO8 - Ethics
Apply ethical principles, responsibility and norms of the engineering practice.

PO9 - Individual and team work
An ability to function on multi-disciplinary teams.

PO10 - Communication
An ability to function on multi-disciplinary teams.

PO11 - Project management and finance
An ability to use the modern engineering tools, techniques, skills and management principles to do work as a member and leader in a team, to manage projects in multi-disciplinary environments

PO12 - Life-long learning
A recognition of the need for, and an ability to engage in, to resolve contemporary issues and acquire lifelong learning

Program Specific Outcomes – PSOs

o **PSO1:** Analyze, Design and Implement application specific electrical system for complex engineering problems, Electrical And Electronics Circuits, Power Electronics and Power Systems by applying the knowledge of basic science, Engineering mathematics and engineering fundamentals

o **PSO2:** Apply modern software tools for design, simulation and analysis of electrical systems to engage in life-long learning and to successfully adapt in multi disciplinary environments

o **PSO3:** Solve ethically and professionally various Electrical Engineering problems in societal and environmental context and communicate effectively

Student chapter events organized for the A.Y 2023-24

❑ **CSI** organized the "FutureSastra-2K24 (Technical Symposium)" on February 16 & 17, 2024. The activities included Py Warrior, JAVA GURU, Web Hunter, C-Cracker, Appify, ErrEpic, DstructNode, Infographics, and Cyber Siege. The event had 192 participants and was held at the national level.

❑ **IEEE** organized the "FutureSastra-2K24 (Technical Symposium)" on February 16 & 17, 2024. The activities included Young Engineer, TrailBlazer, Technova, Project Expo, Business Plan, and Product Launch. The event had 192 participants and was held at the national level.

❑ **ISTE** organized the "FutureSastra-2K24 (Technical Symposium)" on February 16 & 17, 2024. The activities included Crack Interview, Business Quiz, ACE the Speech, Logic Mantra, Technical Quiz, and Master of English. The event had 184 participants and was held at the national level.

❑ **IEEE** organized the "Medha-2K23 (Technical Symposium)" on September 15 & 16, 2023. The activities included Young Engineer, Idea Presentation, Project Expo, and Technical PowerPoint Presentation. The event had 386 participants and was held at the state level.

❑ **ISTE** organized the "Medha-2K23 (Technical Symposium)" on September 15 & 16, 2023. The activities included Mock Interview, Best Spouter, Logic Mantra, General Quiz, and Master of English. The event had 186 participants and was held at the state level.

❑ **CSI** organized the "Medha-2K23 (Technical Symposium)" on September 15 & 16, 2023. The activities included Py Warrior, JAVA Guru, Empiric of Data, and C-Quiz. The event had 90 participants and was held at the state level.

Coding Contests and Hackathons conducted for A.Y 2023-24

❑ **IEEE** organized the "Intra College Hackathon (II B.Tech)" on March 16, 2024. The event had 20 teams and was held at the institute level.

❑ **IEEE** organized the "MSME Hackathon 3.0 (Internal)" on July 7, 2023. The event had 18 teams and was held at the institute level.

❑ **IEEE** organized the "Smart India Hackathon - 2023 (Internal)" on September 21, 2023. The event had 16 teams and was held at the institute level.

❑ **CSI** organized the "Coding Challenge" on September 23, 2023. The event had 40 teams and was held at the state level.

❑ **ISTE** organized the "Idea Presentation – III Year" on September 30, 2023. The event had 52 teams and was held at the institute level.

❑ **ISTE** organized the "Ideathon for II Year Students" on August 16, 2023. The event had 48 teams and was held at the institute level.

❑ **ISTE** organized the "Idea Presentation" on August 5, 2023. The event had 12 teams and was held at the institute level.

Webinars conducted for Academic Year 2023-24

❑ **IEEE** organized a webinar on "LINUX Implementation" on December 23, 2023. The event had 60 participants and was held at the institute level.

❑ **ISTE** organized a webinar on "Interview Skills" on August 22, 2023. The event had 55 participants and was held at the institute level.

❑ **ISTE** organized a webinar on "Resume Writing" on September 9, 2023. The event had 60 participants and was held at the institute level.

Guest Lectures conducted for Academic Year 2023-24

❑ **IEEE** organized a guest lecture on "Fundamentals of AI & ML" on March 16, 2024. The event had 55 participants and was held at the institute level.

❑ **IEEE** organized a guest lecture on "Artificial Intelligence & Methodologies" on February 9, 2024. The event had 54 participants and was held at the institute level.

❑ **IEEE** organized a guest lecture on "Power Electronics and Electrical drives" on February 8, 2024. The event had 60 participants and was held at the institute level.

❑ **IEEE** organized a tech talk on "AI/ML and Data Science Role in BFSI Industry" on October 10, 2023. The event had 58 participants and was held at the institute level.

❑ **IEEE** organized a guest lecture on "The Bridge: Graduate Skills vs. Firm Expected Skills" on October 7, 2023. The event had 60 participants and was held at the institute level.

❑ **ISTE** organized a guest lecture on "AI Applications for Power Electronics-Challenges and Opportunities" on September 30, 2023. The event had 70 participants and was held at the institute level.

❑ **ISTE** organized a guest lecture on "Idea Generation, BMC & Business Plan" on August 30, 2023. The event had 54 participants and was held at the institute level.

Workshops conducted for Academic Year 2023-24

❑ **IEEE** organized a two-day workshop on "Home Automation using IOT " on February 12-13, 2024. The event had 60 participants and was held at the institute level.

❑ **IEEE** organized a four-day workshop on "Cybersecurity & Ethical Hacking" from October 10-13, 2023. The event had 55 participants and was held at the institute level.

❑ **ISTE** organized a three-day workshop on "ML using Deep Learning" from August 24-26, 2023. The event had 60 participants and was held at the institute level.

❑ **ISTE** organized a three-day workshop on "AI for Data Science" from August 24-26, 2023. The event had 116 participants and was held at the institute level.

❑ **IEEE** organized a three-day hands-on session on "Electrical Vehicle and Model Design" from November-13, 2023. The event had 70 participants and was held at the institute level.

❑ **ISTE** organized a two-day workshop on "NEP 2020 - Effective Implementation of NEP 2020" on June 23-24, 2023. The event had 60 participants and was held at the institute level.

Industrial Visits for Academic Year 2023-24

❑ 220/132/33/11KV substation ,Shapurnagar, Hyderabad on 16 March 2024

❑ ALEAP WE HUB, Hyderabad on 9 March 2024

❑ NSIC, Hyderabad on 7 October 2023.

❑ WE HUB,Hyderabad on 29 September 2023

NSS Activities organized for the year A.Y 2023-2024

- **3rd August 2023**: GO Green 2K23 Plantation Programme.
- **30th September 2023**: Medical & Dental Camp, Anti-Plastic Awareness Programme at Gundla Pochampally.
- **28th October 2023**: Awareness Program on Computer Education for ZPHS School Students, Gundlapochampally village.
- **11th November 2023**: Multiple awareness programs at Indiramma Colony:
  - Educating people on Women's Rights (Constitutional & Legal).
  - Women's Self-Defense awareness.
  - Nutrition and Food awareness.
  - Women's Health Issues (PCOD/PCO) awareness.
- **14th December 2023**: Awareness on E-Resources for School Children at ZPHS, Gundla Pochampally.
- **4th January 2024**: Dental camp at Indiramma Colony.
- **12th January 2024**: National Youth Day celebrations.
- **28th January 2024**: Meditation Programme for B.Tech III Year Students by Heartfulness Institution.
- **3rd February 2024**: Multiple awareness programs:
  - Water Conservation at Indiramma Colony.
  - Digital Awareness on Gpay & Phone Pay at Gundla Pochampally.
  - Consumer Rights Awareness at Gundla Pochampally.
  - Educational Awareness for Girls at ZPHS, Gundla Pochampally.
- **11th February 2024**: Meditation Programme for B.Tech I Year Students by Heartfulness Institution.
- **15th February 2024**: Wonder Women 5K Run.
- **2nd March 2024**: Awareness Programme on Communication & Soft Skills for School Children.

Cultural and Sports Events of A.Y 2023-24

- ❑ **Esperanza (Interaction Day)** - 10th May 2024
- ❑ **Musical Show (By Janusha Reddy)** - 3rd May 2024
- ❑ **Holi Celebrations 2k24** - 25th March 2024
- ❑ **Nexplora-2k24 (Cultural Fest)** - 24th February 2024
- ❑ **Tarang-2k24 (State Level Cultural Fest)** - 17th Feb 2024
- ❑ **Rangoli Competition** - 25th January 2024
- ❑ **Sankranthi Celebrations** - 12th January 2024
- ❑ **New Year Celebrations** - 30th December 2023
- ❑ **Flash Mob** - 25th November 2023
- ❑ **Comedy Competition** - 11th November 2023
- ❑ **Singing Competition** - 4th November 2023
- ❑ **Fashion Show Competition** - 4th November 2023
- ❑ **Classical Dance Competition** - 4th November 2023
- ❑ **Sportech 2k23 (Intra College Sports Meet)** - 18th Nov 2023
- ❑ **Bathukamma Celebrations** - 19th October 2023
- ❑ **Photography Competition** - 18th October 2023
- ❑ **Joyful Jamboree (Musical Show)** - 7th October 2023
- ❑ **Esperanza (Interaction Day)** - 23rd September 2023
- ❑ **Sa Re Ga Ma Pa (By Singer Teja)** - 30th September 2023
- ❑ **Musical Show (By Singer Arun Koundinya)** - 25th Aug 2023
- ❑ **Musical Show By Arun Koundinya** - 17th June 2023

Students Achievements for A.Y 2023-24

◇ **Won the BEST BUSINESS MODEL AWARD for ALEAP WE HUB, HACKATHON , JNTU Hyderabad.**

◇ **135 teams got paper publications in various Conferences and Journal's.**

◇ **40 of 2020-24 batch students got successfully placed in various reputed companies.**

Company Name	No. of Students Placed	Package (in Lakhs)
Accenture	24	4.5
Accenture-HD	10	6.1
Amazon	01	4
Capgemini	07	4
Flipkart	01	9.5
KPIT	05	4.5
Vision India	1	4
Tech Mahindra	**3**	4
Total Students Placed: 52		

Hearly Congratulations!!!

Received

BEST BUSINESS MODEL AWARD
24Hrs. JNTUH Hackathon 2024

— **WINNERS** —
K.Sindhuja, N.Srija, K.Vyshnavi – III EEE Students

MALLA REDDY ENGINEERING COLLEGE FOR WOMEN
(Autonomous Institution)

Summary of Student Participations

Event Name	No. of Participations
Student Publications	46
Outside the State - Participations	9
Outside the State - Winners	3
With in the State - Participations	20
With in the State - Winners	6
Hackathons Participations	32
Coding Challenges Participations	291
Workshops Participations	52
Webinars Participations	110
Total Awards / Merits / Appreciations /Participations	569

Internships

Name of the Company	No. of Students
NSIC	22
KPIT	2
ACCENTURE	1
TSGENCO	9
INDIAN INSTITUTE OF PLANT ENGINEERS	24
Total	58

Faculty Development Programmes for A.Y 2023-24

- ❏ Faculty Development Program (FDP) on Effective Implementation of NEP2020 - Held on 23rd & 24th June 2023, organized by MRECW, led by Dr. D.B.K. Kamesh.
- ❏ Faculty Development Program (FDP) on Blockchain in Edge and Cloud Computing - Scheduled for 5th to 9th February 2024, organized by MRECW, with Dr. Y. Geetha Reddy as the faculty organizer.
- ❏ Faculty Development Program (FDP) on Generative AI for Data Analytics - Scheduled for 5th to 9th February 2024, organized by MRECW, with Dr. G. Kalpana leading the event.
- ❏ Faculty Development Program (FDP) on Wireless Networks - Happening from 12th to 16th February 2024, organized by NITTR in collaboration with MRECW, under the guidance of B.V.S.P Kumar.
- ❏ Faculty Development Program (FDP) on AIML and Data Science for Industry 4.0 (Advanced Level) - Set for 26th February to 1st March 2024, organized by NITTR in collaboration with MRECW, with Dr. K.V. Naganjaneyulu as the faculty organizer.
- ❏ Faculty Development Program (FDP) on Machine Learning Using Python - Scheduled for 19th to 23rd February 2024, organized by NITTR in collaboration with MRECW, led by Dr. Vishnu Kumar Mishra.

Faculty Achievements for A.Y 2023-24

- ✧ In the academic year 2023-24, faculty members achieved notable success with a total of 45 research publications, including 40 in UGC journals and 5 in prestigious SCOPUS/WOS/ SCI/Springer journals.
- ✧ In addition to their journal publications, faculty members also contributed significantly to academic literature, publishing 2 books and book chapters in the academic year 2023-24.
- ✧ Furthermore, faculty members demonstrated innovation by securing 5 patents in the academic year 2023-24, highlighting their contributions to research and development.
  - o Dr. A.Ganga Dinesh Kumar on **INFRARED SENSORS BASED SPEED BREAKER AND BARRIER DETECTION FOR VEHICLES**.
  - o Dr.Y.Madhusudhan Reddy designed an **AUTONOMOUS CONTROL OF ELECTRICAL VEHICLES USING AI Technology** .
- ✧ Faculty has done NPTEL certifications on different courses

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