

CURRENTS

Issue. 7 Jan 2023-Dec 2023



CURRENTS-2023-2024

**MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE
UGC-AUTONOMOUS**

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING



About Department

Inside This Issue

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The Department of Electrical and Electronics Engineering has been playing a vital role in producing professionals of highest caliber ever since it was established in 1998. The department runs one under-graduate programme to cater to the ever challenging needs of technical excellence in all areas of Electrical Engineering such as Power systems, Control Systems & Power Electronics. The department conducts regular seminars, guest lectures, workshops and technical symposiums on latest technologies.

The Department has obtained UGC-Autonomous Status in the Year 2014 and have been running programme (B. Tech.) successfully. The College Academic Council and Board of Studies of the department strive to provide quality education with the most advanced curriculum to make the students industry ready and excel in the contemporary business world.

The B. Tech. Programme under Department of Electrical and Electronics Engineering was accredited by the National Board of Accreditation (NBA) of All India Council for Technical Education (AICTE).

VISION AND MISSION OF THE DEPARTMENT

Vision

To become a Department recognized for its ability to provide quality education to the students and make them excel in the domain of electrical & electronics engineering, with research proficiency and ethics, to meet the challenges of society.

Mission

M1: To impart quality education and advancements in program of studies for producing engineers with scientific temperament and moral values in the field of electrical & electronics engineering.

M2: To create and develop research culture with deep sense of commitment, so as to enable the industries to adopt the research outputs.

M3: To enhance the technical dexterity, so as to find the suitable solutions in their respective domain, for welfare of the society.

Quality Policy

Madanapalle Institute of Technology & Science is committed to bring out and nurture the talents and skills of youth in the fields of Engineering and Management to cater to the challenging needs of society and industry by

- ❖ Contributing to the academic standards and overall knowledge development of the students
- ❖ Providing excellent infrastructure and conducive learning environment.
- ❖ Enhancing the competence of faculty and promoting R&D Programs
- ❖ Collaborating with institutions and industries.
- ❖ Ensuring continual improvement of Quality Management System.

Message from Correspondent

Technology places a vital role in shaping a student's career. EEE Department provides excellent opportunities for the students to discover their potentials. If students are able to go out of college with flying colors, it's no exaggeration to say that it's only because of the supportive environment that is provided in the college. Currents provides a glimpse of the activities and achievements in EEE Department. Students must make use of the opportunities provided to them in order to excel in their career. They must aim high. Students should consider technology as a treasure box and make proper use of it to achieve their goals. It gives me an immense pleasure looking at the efforts put by the EEE department, in coming up with creative ideas to design a souvenir every year.



Dr. N. Vijaya Bhaskar Choudary,
M. Com, Ph.D.

Secretary & Correspondent

Message from Principal

The technological information dissemination to public is the key factor in bringing concerned people/Department together. The Department of Electrical and Electronics Engineering contributing best of its efforts in development of Newsletter by publishing Currents. The documentation of different activities and bringing it to relevant technical community is the excellent towards service of society. These activities will help in making the science and technology much stronger towards knowledge bank. I am congratulating all the EEE department staff and students on this occasion. I wish good luck and extend my warm patronage to all of those who have contributed their best to bring out the Currents in good shape.



Dr. C. Yuvaraj, Ph.D.

Principal

Message from HOD

I am happy that Dept. of EEE is bringing out a Currents (Newsletter). Currents will definitely help to showcase the activities that are happening in the department. It also helps in building up teamwork which is very much needed today in the world of competition. It provides a platform for exposing the merits and academic achievements of the faculty. This enhances the documentation culture of the department. This would definitely create an impact in the minds of readers, by way of providing larger visibility and dimension to the campus. I hope that this culture of releasing Newsletter continue forever.



Dr. A V PAVAN KUMAR, Ph.D.

Head of the Department

Department of EEE

DETAILS OF EEE NEWSLETTER – CURRENTS

Chief Editor	Faculty Editors	Student Editors
Dr.A.V.Pavan kumar, Professor & Head of the Department EEE.	Mr.B.Vijayakumar, Assistanr Professor, Dept Of EEE	Ch. Manohar -21691A0225 T.Shravya- 22691A0241 G.Keerthi Chitanya-23691A0225
	Mr.Rajesh K S, Assistanr Professor, Dept Of EEE	

CONSOLIDATED DATA

S.NO	EVENT NAME	DATE
1	One-day Industrial Visit to Rayalaseema Thermal Power Project (RTPP), Muddanur	08th January 2023
2	a Guest-Lecture on "Role of Static Power Conversion in Current and Future Power Systems	21.01.2023
3	Webinar on “Power Quality Events Monitoring System using Signal Processing Techniques on an Embedded Platform	4th March 2023
4	Webinar on "Driver Behavior Modelling for Autonomous Vehicle	7th March 2023
5	One Day Online Workshop on "Encouraging Students for Research	13th March, 2023.
6	One Day National Level Technical Symposium on Techno Fest on Electrical Revolutions & Advancements TERA 2k23	18th April 2023
7	One Day Online Workshop on "Application of Automated Machine Learning in Electrical Industry"	24th May, 2023.
8	One Day Guest Lecture on “Recent Advancement in Smart Grid and Renewable Energy with Modern Computational Technique”	1st June 2023
9	Alumni Guest Lecture on "Opportunities Available for Students in SAP especially in ABAP Technology"	29th May 2023

10	Alumni Guest Lecture on "Career Guidance to IT industry"	17th July 2023
11	Industrial Visit to Vikram Solar Power Plant (TTD 10MW Solar Power Plant) Kosuvaripalle,	19th July 2023
12	Five Day Faculty Development Program on "PLC and SCADA	01st to 05th August 2023
13	Alumni Guest Lecture on “Pathway Towards Software Opportunities”	5th August 2023
14	Virtual Guest Lecture on "Machine Learning Techniques: An Overview"	16th August 2023
15	Webinar on "Entrepreneurship Opportunities in the Livestock Sector”	19th August 2023
16	Technical Seminar on “Challenges Involving Size, Weight and Power (SWaP) in an UAV”	21st & 22nd August 2023
17	One Week Faculty Development Program on “Smart Grid and Integration of Distributed Generation”	28th August to 01st September 2023
18	Alumni Guest Lecture on “DevOps And AIOps Career Planning”	08th September 2023
19	A Six-day Skill Development Training Program on "Industrial Automation with PLC"	04.09.2023 to 09.09.2023
20	A Six-day Skill Development Training Program on "Python Programming"	11.09.2023 to 16.09.2023
21	A One Day Industrial Visit to “Delphi TVS-Chennai”	17th October 2023
22	Guest Lecture on "Role of Optimization Techniques in Electrical Engineering”	04th November 2023
23	Alumni Guest Lecture on “Career Guidance to Core Opportunities”	28th November 2023
24	Industrial Visit to “Rayalaseema Thermal Power Project (RTPP)	03rd December 2023

EVENTS ORAGANISED

EVENT-1

One-day Industrial Visit to Rayalaseema Thermal Power Project (RTPP), Muddanur has been organized for the III Year I semester B. Tech, EEE, Sec.- A students on 08th January 2023.

Faculty Accompanied:

1. Dr. V B Thurai Raaj
2. Mr. S. Bharath Kumar
3. Mrs. K. Revathi
4. Mr. Y. Ramanjaneyulu

The Industrial Visit to RTPP started at 6.30 AM by college bus and reached the plant by 11.00 AM. The total crew was divided into five batches with a size of 11 students under the guidance of each faculty member. The students along with faculty members visited the plant between 1.00PM and 5.00 PM. Sri P. Hari Babu, AEE/O&M/ Stage-II/RTPP elaborated the functioning mechanism of the Rayalaseema Thermal Power Project (RTPP) and strongly insisted that safety precautions should be adhered to during the visit.

Field Visit Information:

The students visited all segments of the Power Plant and interrogated with the experts. Various segments like 1. Cooling Towers 2. Unit Control Board(UCB) 3. Main Control Room(MCR) 4. Turbine Floor 5. Switch yard 6. Generator Transformer Yard 7. Boilers 8. Bunkers 9. Mills (pulverized coal) 10. Cooling Tower pump house.

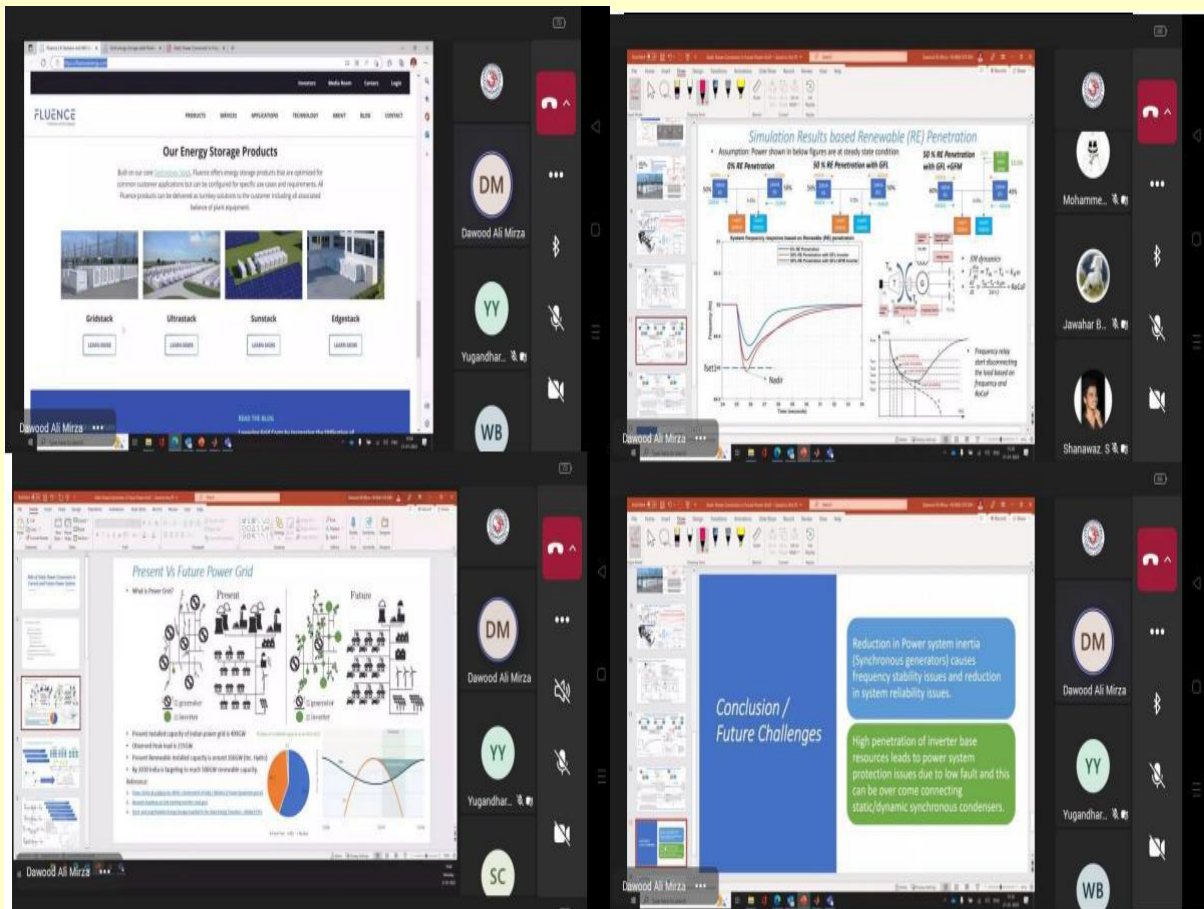


EVENT-2

Department of Electrical & Electronics Engineering Organised a Guest-Lecture on "Role of Static Power Conversion in Current and Future Power Systems" on Date: 21.01.2023.

The programme is started at 2:30 PM with a welcome address to all the audience by the Dr. A V Pavan Kumar, H.O.D, EEE, MITS, Madanapalle. The resource person Mr. Dawood Ali Mirza R&D Engineer, Fluence India, was introduced by Dr. Gumpu Sreenivasulu, Assistant Professor, Dept. of EEE. The resource person started the session by extending his hearty thanks to the participants, IEEE coordinators, executive members, HoD, Principal and Management of MITS Madanapalle for giving him opportunity to share his knowledge and experience in "Role of Static Power Conversion in Current and Future Power Systems".

The resource person highlighted the various types of renewable energy and the integration of renewable energy into the grid. Also, he focused on the various challenges in the integration of renewable energy into the grid and various converters. Besides, the growth in market and opportunities in the renewable energy sector are being discussed during the session. The distinguished speaker discussed various renewable energy models. Also, the basic architecture of solar and wind are elaborated by Mr. Dawood Ali Mirza. During the session, the major opportunities, power converters and controllers design are being focused by the speaker. Besides, the prominent resource person pointed that there are huge number of opportunities for the engineering graduates in recent decades. Moreover, possibilities and innovations in solar sector are being highlighted during the session. At the end, the prominent speaker underlined the career opportunities for graduates. Also, speaker assured to help the participants/students for any kind of research guidance. The session was concluded followed by a vote of thanks, given by Dr. Gumpu Sreenivasulu, Assistant Professor, Department of EEE (IEEE Coordinator) MITS, Madanapalle.



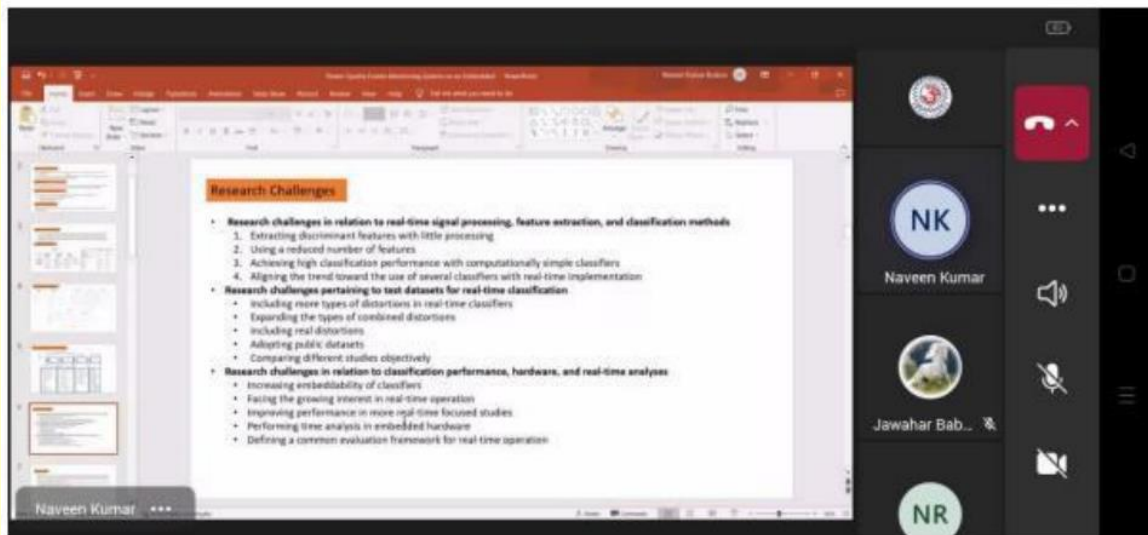
EVENT-3

Department of Electrical & Electronics Engineering organized A Webinar on “Power Quality Events Monitoring System using Signal Processing Techniques on an Embedded Platform in association with IEEE and ISTE cells at MITS on 4th March 2023.

The programme is started at 11.00 AM to 12.30 PM with a welcome address to all the audience by the Dr. A V Pavan Kumar, H.O.D, EEE, MITS, Madanapalle. The resource person Mr. Naveen Kumar, R&D Signal Processing Engineer in Nanoprecise.io, Bangalore, was introduced by Dr. Gumpu Sreenivasulu, Assistant Professor, Dept. of EEE. The resource person started the session by extending his hearty thanks to the participants, IEEE and ISTE coordinators, executive members, HoD, Principal and Management of MITS Madanapalle for giving him opportunity to share his knowledge and experience in “Power Quality Events Monitoring System using Signal Processing Techniques on an Embedded Platform”.

The resource person highlighted the various types of power quality issues and their detection techniques. Also, he focused on the various challenges in the detection of power quality events. Besides, the growth in the market and opportunities in this area are being discussed during the session. The distinguished speaker discussed the research challenges in the detection of PQ events and various PQ detection techniques. Also, the basic architecture of PQ detection approaches is elaborated by Mr. Buduru Naveen Kumar. During the session, the major opportunities and design of hardware setup are being focused on by the speaker. Besides, the prominent resource person pointed out that there are huge number of opportunities for the engineering graduates in recent decades. Moreover, possibilities and innovations in this sector are being highlighted during the session.

The outcome of the webinar is students were made aware of how to clearly define problems, how to find an innovative solution of the problems and how to manage risk while trying to introduce new products to the markets. At the end, the prominent speaker underlined the career opportunities for graduates. Also, the speaker assured to help the participants/students for any kind of research guidance.



EVENT-4

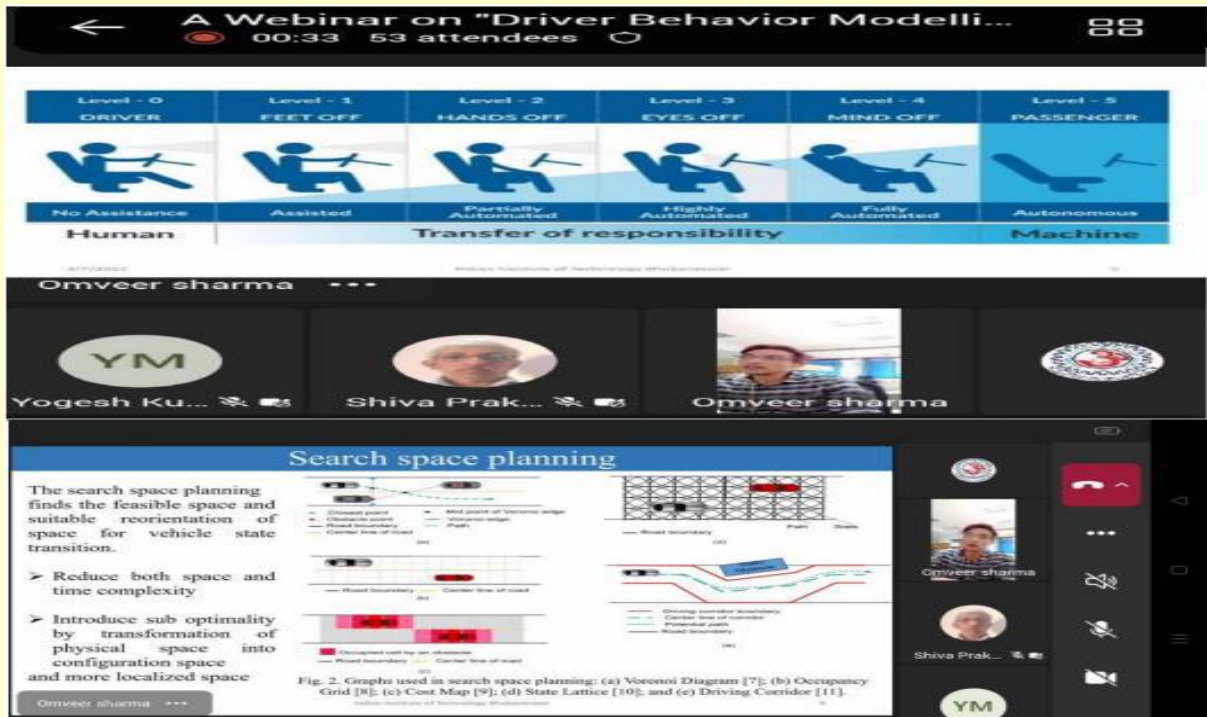
Department of Electrical & Electronics Engineering organized a Webinar on "Driver Behavior Modelling for Autonomous Vehicle on 7th March 2023.

The programme is started at 02.30 PM to 04.30 PM with a welcome address to all the audience by the Dr. A V Pavan Kumar, H.O.D, EEE, MITS, Madanapalle. The resource person Mr. Omveer Sharma, Research Associate, Indian Institute of Technology, Bhubaneswar, was introduced by Dr. Gumpu Sreenivasulu, Assistant Professor, Dept. of EEE.

The resource person started the session by extending his hearty thanks to the participants, IEEE and ISTE coordinators, executive members, HoD, Principal and Management of MITS Madanapalle for giving him opportunity to share his knowledge and experience in “Driver Behavior Modelling for Autonomous Vehicle”. The resource person highlighted the various types of modern machine learning and deep learning techniques. Also, he focused on the various challenges in the modelling of driver behavior of autonomous vehicle. Besides, the growth in market and opportunities in autonomous vehicles are being discussed during the session.

The distinguished speaker discussed various techniques which are modelling of driver behavior of autonomous vehicle. Also, the basic architecture of these approaches are elaborated by Mr. Omveer Sharma. During the session, the major opportunities are being focused by the speaker. Besides, the prominent resource person pointed that there are huge number of opportunities for the engineering graduates in recent decades. Moreover, possibilities and innovations in this sector are being highlighted during the session. The outcome of the webinar are students were made aware of how to clearly define problems, how to find an innovative solution of the problems and how to manage risk while trying to introduce new products to the markets. At the end, the prominent speaker underlined the career opportunities for graduates. Also, speaker assured to help the participants/students for any kind of research guidance.

The session was concluded followed by a vote of thanks, given by Dr. Gumpu Sreenivasulu, Assistant Professor, Department of EEE (IEEE and ISTE Coordinator) MITS, Madanapalle.



EVENT-5

Department of Electrical and Electronics Engineering conducted A One Day Online Workshop on "Encouraging Students for Research in association with IIC at MITS Madanapalle through Microsoft Teams on 13th March, 2023.

The session was started at 2 PM. The workshop was initiated by Dr. A. V. Pavan Kumar, HOD-EEE Department. The resource person Dr. G. Janaki, was introduced by Dr. K. Lakshmikhandan, Assistant Professor, Dept. of EEE. The resource expert addressed the significant careers in research.

1. At the beginning of the presentation, the eminent resource person gave the five important steps to identify the interests for research.
2. Furthermore, decision makers need to be able to gain valuable insights from such varied and rapidly changing research, ranging from daily needs of the customer to the future needs.
3. Then the prominent speaker focused on the to the Sustainable Development Goals (SDG's) which were 17 in numbers and were used to analyze some of the different analytics methods and tools which can be applied to research, as well as the opportunities provided by the researchers in various applications.

4. Then the resource person also explained the key areas of Electrical Engineering in research.

5. The prominent speaker also listed out the major Professional Organisations like IEEE, IET, SPIE, ACM, AES, EPRI, ISTE, SEMCEI, etc. where our research proposals will be accepted for publications.

6. In conclusion note, the distinguished speaker highlighted the various funding agencies in research analytics which is of great significance in this era of science, and can provide unforeseen insights and benefits to students in various areas for applying.

7. Therefore, the properly exploited and applied research has been the potential to provide a basis for advancements, on the scientific, technological, and humanitarian levels which were all explained by the speaker at the end.

Feedback: The participants were involved to understand this research which has provided the students and faculties of the organization with examples of the various methods of research tools, methods, and technologies which can be applied. The session was concluded followed by avote of thanks which was given by Dr. A. V. Pavan Kumar, HOD-EEE Department.

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE
(UGC-AUTONOMOUS INSTITUTION) www.mits.ac.in
Madanapalle-517325, Annamayya Dist., Andhra Pradesh

One day Online Workshop on
ENCOURAGING STUDENTS FOR RESEARCH

INSTITUTION'S INNOVATION COUNCIL (Agency of HRD Initiatives) NAAC A+

Resource Person
Dr. G. JANAKI
Program Leader & Exam Officer – SRM
Cambridge Professional Development Centre
Tamil Nadu

DATE
13.03.2023
TIME
2.00 PM-4.00 PM
(ONLINE)

Chief Patron
Dr. N. Vijaya Bhaskar Choudary
Secretary & Correspondent

Patron
Mrs. Keerthi Nadella
Executive Director

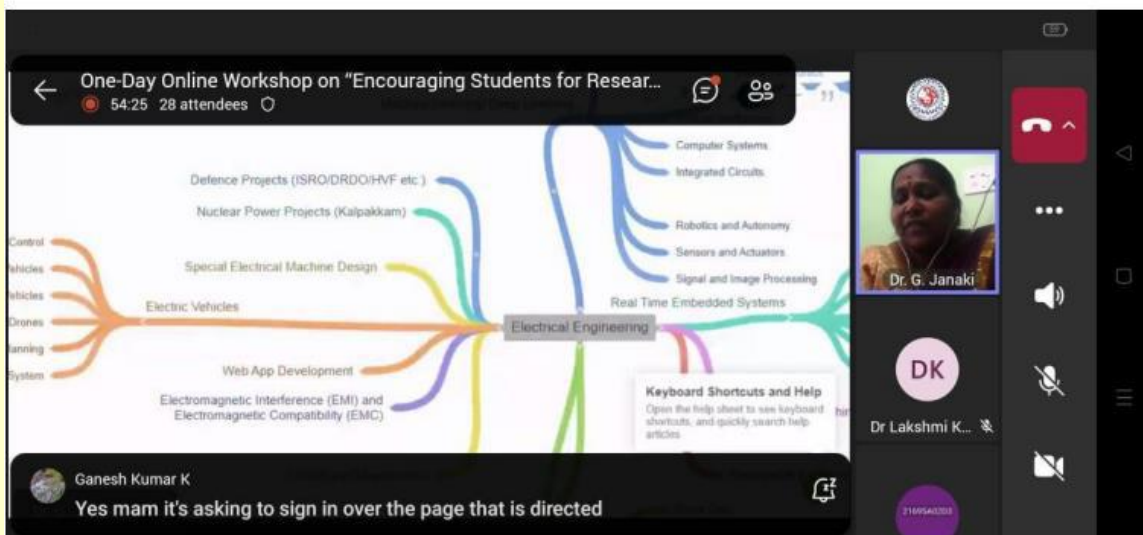
Program Chair
Dr. C. Yuvaraj
Principal

Conveners:
Dr. Kamal Basha
Vice Principal, Administration.

Dr. A V Pavan Kumar
HOD EEE, Professor.

Coordinator
Dr. K. LAKSHMIKHANDAN
ASSISTANT PROFESSOR - EEE DEPARTMENT.

Organized by Electrical & Electronics Engineering



EVENT -6

Department of Electrical & Electronics Engineering organized A One Day National Level Technical Symposium on Techno Fest on Electrical Revolutions & Advancements TERA 2k23 on 18th April 2023.

A National Level Technical Symposium "TERA 2K23" is held at Madanapalle Institute of Technology & Science, organized by the Department of EEE on 18th April 2023.

Chief guest Mr. S. V. Mahesh Babu, EE/O&M/400kVSS/ Kalikiri, Principal Dr. C. Yuvaraj, Vice Principal (Administration), Dr. C. Kamal Basha, Chief Convenor and HOD/EEE Dr. A. V. Pavan Kumar, and Coordinator Dr. T. S. Balaji Damodhar lighted the lamp and inaugurated the Technofest TERA 2K23.

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE
(UGC-AUTONOMOUS INSTITUTION)
Madanapalle-517325, Annamayya Dist., Andhra Pradesh, India

www.mits.ac.in ESTD: 1998

One Day National Level Technical Symposium

TERA 2K23
(Technofest on Electrical Revolutions & Advancements)
18th April 2023

Call for papers

- Track 1: Topics related to Electric Vehicles
- Track 2: Internet of things (IoT) and Embedded Systems
- Track 3: Power Electronics
- Track 4: Robotics, Drone's & UAV
- Track 5: Renewable Energy Systems Integration
- Track 6: Artificial Intelligence & Deep Learning applications

Guidelines to the participants
Registration Fees : Rs. 100/-
Paper can have maximum of five authors. Paper should be in IEEE double column format, single line spacing, not exceeding 08 pages.

Registration Link:
<https://forms.gle/UJ4yivAkAgyKp2sX7>

Email ID:
tera2k23@mits.ac.in

STUDENT COORDINATORS.

V. Chandra Karth 8096083677	D. Guna Pranoj Kumar 8985813313	S. Abanueed 9440863081	Ch. Manohar 8096211631
M. Geetha 9110599044	A. Dhanunjaya Gupta 6303591934	M. Chandini 9515681100	S. Chinnai 8630897632

CHIEF PATRON
Dr. N. Vijaya Bhaskar Choudary
Secretary & Co-ordinator

PATRON
Dr. C. Yuvaraj
Principal

Chief Convener
Dr. A.V. Pavan Kumar
Professor and Head, EEE

Convener
Dr. T.S. Balaji Damodhar
Assistant Professor, EEE

Project Expo
Paper Presentation
Poster Presentation

Registration Link:
<https://forms.gle/UJ4yivAkAgyKp2sX7>

Organized by Department of Electrical & Electronics Engineering



Dr A. V. Pavan Kumar, Chief convener and HOD/EEE welcomed the gathering.

Principal Dr. C. Yuvaraj elaborated about the emerging trends in Electrical Engineering. Vice Principal (Administration), Dr. C. Kamal Basha highlighted the benefits of attending the technical symposium. Convener Dr. T. S. Balaji Damodhar addressed the gathering with few words related to the Technical Symposium.

The Chief guest Mr. S. V. Mahesh Babu EE/O&M/400kVSS/ Kalikiri, in his inaugural speech explained about the job placements available for the Electrical Engineering students

in Electrical sectors. Further, he insisted the students to study the subjects thoroughly to get a good opportunity in various PSUs.

Symposium CD release by Chief guest, Principal, Vice-Principal, HOD & Convenor.



Event Schedule

Time	Programme	Venue
11.15am – 1.00pm	Paper Presentation	Smart Classroom (WB-117)
01.30pm – 04.30pm	Poster Presentation	Venue-1-WB 118
	Poster Presentation	Venue-2-WB 221
	Project Expo	Electrical Machines Laboratory
	Technical Quiz	WB 122
4.30pm to 5.00pm	Valedictory Function	Auditorium
	Vote of Thanks	Auditorium

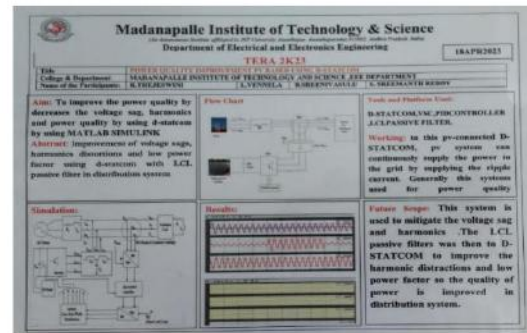
PAPER PRESENTATION



FACULTY COORDINATORS FOR PAPER PRESENTATION EVENT:

1. Dr. P. Balakumar, AP/EEE
2. Mr. K. S. Rajesh, AP/EEE

POSTER PRESENTATION



FACULTY COORDINATORS FOR POSTER PRESENTATION

1. Mr. B. Vijaya Kumar
2. Mr. S. Narasimman

PROJECT EXPO



FACULTY COORDINATORS FOR PROJECT EXPO

1. Dr. A. V. Pavan Kumar, HOD & Professor/EEE
2. Dr. K. Lakshmikhandhan, AP/EEE

TECHNICAL QUIZ



FACULTY COORDINATOR FOR TECHNICAL QUIZ

1. Mr. N. Ramesh, AP/EEE

PHOTO CLIPS ON OTHER EVENTS



Totally, 74 Participants from various colleges have attended the Paper/Poster Presentation, Project Expo, and technical Quiz. Panel of reviewers were created to review their presentations. Paper presentations were conducted in both online and offline modes. Around 4.30 pm, the valedictory function started and chaired by Vice Principal (Academics) Dr. P. Ramanathan, distributed the prizes for the best Paper/poster, Project Expo and Technical Quiz have been awarded to the deserving candidates.

PRIZE WINNERS OF THE EVENTS

Sl. No.	Name of the student	Name of the College	Prize	Event
1.	D. S. Usha, P. Navya	Adhitya Engineering College, Madanapalle	1st	Paper Presentation
2.	K.Vijayaragavan, S.Thrisha, S Premkumar, G.Mohankumar	Jaya Engineering College	2 nd	
3.	B. Tulasi, G. Vani	Madanapalle Institute of Technology	1 st	Poster Presntation
4.	G. Sai Priya, V. Venkata Chandra kanth	Madanapalle Institute of Technology	2 nd	
5.	M.Vidyarani A.Jahnavi M.Mounika S.Madhuri	Madanapalle Institute of Technology	1 st	Project expo
6.	B.Siva Kumar Nishanth Gowd V.Pawan Kumar SMD.Nyamathulla	Madanapalle Institute of Technology	1 st	Technical Quiz
7.	G.Mafthar L.S.Athika K.Ganga Charitha S.R.R.Mounish	Madanapalle Institute of Technology	2 nd	





EVENT-7

Department of Electrical and Electronics Engineering conducted A One Day Online Workshop on "Application of Automated Machine Learning in Electrical Industry" on 24th May, 2023.

The programme is started at 3:00 PM with a welcome address to all the audience by the Dr. A V Pavan Kumar, H.O.D, EEE, MITS, Madanapalle. The resource person was Mr. A M Govind Kumar, Director of SeaportAi, Chennai, Tamilnadu. The resource person started the session by extending his hearty thanks to the participants, organising members, HoD, Principal and Management of MITS Madanapalle for giving him opportunity to share his knowledge and experience in "Machine Learning". The topic the resource person covered is Introduction to Machine Learning and its application in electrical industry. The audience was made aware of the following through his presentation.

- Industry 4.0
- Application of AI in electrical industry
- Industrial Analytics – From preventive to predictive maintenance
- What is Automated Machine Learning
- Evolution of IT industry
- What is PowerBi
- Data Visualization using PowerBi
- How PowerBi dashboard can be used for energy sector.

The session was concluded followed by a vote of thanks, given by Ms. Revathy Gopinath, Assistant Professor, Electrical and Electronics Engineering Department, MITs, Madanapalle.

EVENT-8

Department of Electrical and Electronics Engineering **organised One Day Guest Lecture on “Recent Advancement in Smart Grid and Renewable Energy with Modern Computational Technique” in Association with IIC on 1st June 2023.**

The session was started at 10 AM. The Guest Lecture was initiated by Dr. A. V. Pavan Kumar, HOD-EEE Department. The resource person Dr. K. Ravi, was introduced by Dr. K. Lakshmikhandan, Assistant Professor, Dept. of EEE. The resource expert addressed the significant careers in renewable energy.

1. At the beginning of the presentation, the eminent resource person gave the five important sources of renewable energy.
2. Furthermore, the working of generators and motors were explained with neat examples
3. Then the prominent speaker focused on the to the Sustainable energies which were used in various parts of India and the capacities of energy production and scarcity faced by the consumers in various parts of our country still now even without a light or electricity.
4. Then the resource person also explained the key areas of small scale solar plants which have been installed in tribal areas.
5. The prominent speaker also listed out the major Professional Organisations of manufacturing solar panels and the power production process and sold to the government at a reasonable price.
6. He also explained the need for microgrid and its usage in tribal areas.
7. In conclusion note, the distinguished speaker highlighted the various agencies in renewable energy production which is of great significance in this era of science, and can provide unforeseen insights and benefits to the people in various areas of the country.
8. Therefore, the renewable energy has been the potential to provide a basis for advancements in future to meet the demands of the people.
9. The students gained knowledge about the various types of renewable energies, its production and the process to meet the demands of the people and the process of becoming an entrepreneur in future in this green fast evolving field of energies.
10. Finally the session was concluded followed by a heart felt vote of thanks which was given by Dr.K.Lakshmikhandan by thanking the esteemed Management-MITS Madanapalle, Principal Prof. Dr.C.Yuvaraj, Vice Principal(Academics) Dr.P.Ramanathan, Vice Principal (Administration) Dr.Kamal Basha , EEE HOD Dr.A.V.Pavan kumar , department colleagues, the students and all those who have been involved indirectly by making the event a grand success.



EVENT-9

Department of Electrical & Electronics Engineering organised An Alumni Guest Lecture on "Opportunities Available for Students in SAP especially in ABAP Technology" on 29th May 2023.

Mr. S Bharath kumar Alumni coordinator introduced the Alumni Mr. Gurunath Kumar who hailed from the same department of EEE, MITS as a student in 2004-2008 batch. Also emphasised on the career of Mr. Gurunath has vast experience in SAP frame work for about 14 years in various MNCs like IBM, HP, TCS etc. Also asked the students to utilise this opportunity for their best to interact with the Alumnus. Then the Guest Lecture was welcomed.

The alumni lecture was following as: Mr. Gurunath firstly motivated the III-year students to have three main qualities to prove themselves to withstand the competitive world, firstly he encouraged the students to be expressive of their knowledge and interact with their team in the company Secondly, He encouraged the students to be flexible to the work and to have an extended attitude to help the team and asked them to never back off when there is a need to go an extra mile to do the tasks for the team they work Finally, Mr. Gurunath

emphasised on the concept and habit of Life-Long learning which keeps the students ahead of their time and to achieve greater success in their career. Alumni advised the students how to balance the work as well as the life by giving few tips and bits of the hacks.



EVENT-10

Department of Electrical & Electronics Engineering organised An Alumni Guest Lecture on "Career Guidance to IT industry" on 17th July 2023.

The programme is started at 10:00 AM with a welcome address to all the audience by the Dr. A V Pavan Kumar, H.O.D, EEE, MITS, Madanapalle. The resource person was Mr. Sai Varun, Team Lead, Senior Consultant in Accenture, Bangalore, Karnataka.

The resource person started the session by extending his hearty thanks to the participants, organising members, HoD, Principal and Management of MITS Madanapalle for giving him opportunity to share his knowledge and experience in “IT Industry”.

The topics were covered by resource person are related to the career opportunities in information technology industry and acquire knowledge to meet the corporate industries. The session started from the basic needs for getting job in IT industry and its gone so far how to sustain in that, field.

Faculty attended: 1. Dr. R. Kiran Kumar -MITS Alumni Relation Officer 2. Mr.M.Venkatesh - EEE Dept. Alumni Coordinator 3. Dr. K. Lakshmikhandan -AP/EEE

Students Attended: EEE: Final year (80) Venue: WB117

The following topics were interacted with students to update their basic skill sets to meet the corporate requirement. 1. Communication skills 2. Proficiency in programming languages 3. Coding skills 4. Database Management 5. Outstanding time-management and organisational skills 6. Independent Entrepreneurship.

The session concluded at 11.00 AM with the vote of thanks given by Dr. A V Pavan Kumar, HOD/EEE.



EVENT-11

Department of Electrical & Electronics Engineering organized An Industrial Visit to Vikram Solar Power Plant (TTD 10MW Solar Power Plant) Kosuvaripalle, AP on 19th July 2023.

A total of 60 number of I year students (out of which 16 EEE student) along with 04 faculties reached Vikram Solar Power Plant, Kosuvaripalle, Andhra Pradesh at around 12.00 PM. Mr. Y. Dinesh, Site Engineer, Vikram Solar Power Plant and two technical staff of the power plant explained the design and function of the solar power plant initially to the faculties.

Mr. Y. Dinesh briefly said about the background of the power plant. Tirumala Tirupati Devasthanams (TTD) has established a 10 MW Solar Power Plant at Kosuvaripalli near Madanapalle, Andhra Pradesh on Build, Operate and Transfer (BOOT) basis through M/S. Vikram Solar Pvt. Ltd., Kolkata for electrical energy generation for captive utilization of electrical energy to TTD 11 KV HT service connections. The Solar plant was put into commercial operation w.e.f. 01.04.2017. This plant produces approximately 8 MW to 10 MW power to grid (on grid only).

Each group of students along with the concerned faculty were visited the solar string & inverter section, 11 KV substation and the control room. The concerned faculty and the present technical staff of the power plant explained regarding the solar power generation, conversion & control and transportation of power to each group of students.

The visit was more interactive with effective learning and the students were made to understand the theoretical concepts involved in a solar power plant design and operation. The students returned to MITS, Madanapalle, Angallu at 02.30 PM on the same day.

We would take this opportunity to thank MITS Management, Principal, Vice Principal Administration and Vice Principal Academics for their continuous support towards organizing such events for betterment of student and faculty community.

Faculty Visited: 1. Dr A V Pavan Kumar, Prof. & Head, Dept. of EEE, 2. Dr. Renjith Bhaskaran, Asst. Professor & Head Dept. of Chemistry 3. Dr. S. Shanmuga Priya, Asst. Professor, Dept. of English & Foreign Languages 4. Dr. K. V. Nagesha, Assoc. Professor, Dept. of ME.



MITS EEE students visited the solar power plant as part of an industry visit



(By Our Skyline Staff Reporter)
 Madanapalle, July 19: Students studying first year B Tech in EEE Department at Madanapalle Institute of Technology &

Science College near Angallu visited a solar power plant near Mudivedu as part of an industry visit. Dr Ramanathan, Vice Principal of the college said

that the students learned about the process of generating power through solar. On this occasion, he said that the Andhra Pradesh government has set up a 10 mega volt so-

lar power plant in 70 acres and the students participated in the industry visit with great interest. Power Plant Site Incharge Y Dinesh said that the 10 MW solar power plant at Kosuvaripalli has been constructed under the auspices of Tirumala Tirupati Devasthanams (TTD). The plant will generate around 8 MW to 10 MW of grid (on grid only) power. The students and faculty visited the Solar String & Inverter Section, 11 KV Substation and Control Room located there.

EVENT -12

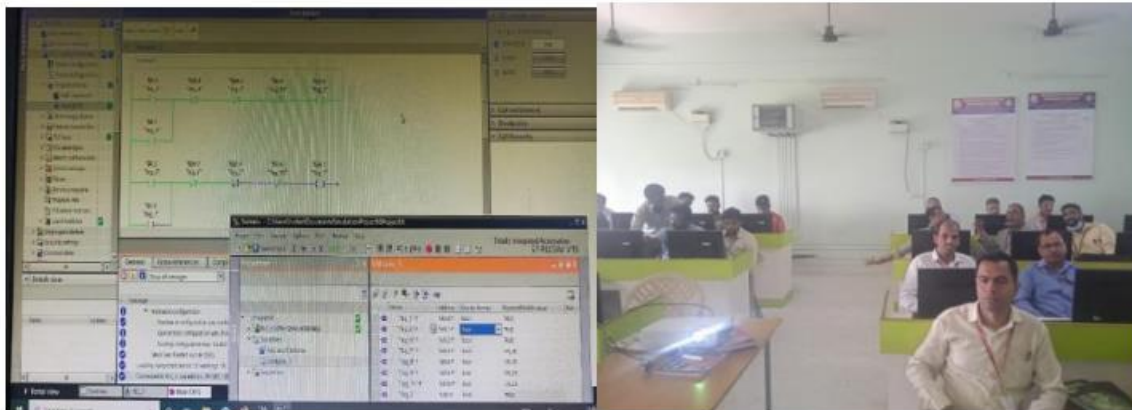
Department of ECE & EEE organized A Five Day Faculty Development Program on "PLC and SCADA" FROM 01st to 05th August 2023.

The Department of ECE and EEE, MITS, Madanapalle combinedly organized a Five-day faculty development program on PLC and SCADA during 01/08/23 to 05/08/2023. Dr. C. Kamal Bahasa, Professor/EEE & Vice Principal-Administration, MITS, Dr. S. Rajasekaran Professor & HoD, / ECE, Dr. A.V Pavan Kumar, Professor & HoD / EEE welcomed the resource person. Dr. C. Kamal Bahasa gave a brief introduction about the five-days FDP. Professor Rajasekaran addressed the welcome note and introduced the

resource person. And Dr. A.V Pavan Kumar addressed the importance of FDP and he handed over the session to the resource person.

In this FDP Mr. Syed Alla Bakshu was enlightened with the fundamentals of PLC and SCADA along with application development using PLC and SCADA. All sessions were very informative. Totally thirty-one Faculties were registered for this workshop from ECE and EEE Department.

Date	Topics Covered
01/08/2023-FN	Introduction to PLC, Different types of sensors Switches and lamps, Ladder logic programming & Ladder programming using logic Gate
01/08/2023 -AN	Hands-on Training
02/08/2023 -FN	Interlocking systems, Timer & Motor application on timer
02/08/2023 -AN	Hands-on Training
03/08/2023 -FN	Counter design, Up Counter, Down Counter and Up Down Counter, Problems on Counter & Conveyor belt application on timer.
03/08/2023 -AN	Hands-on Training
04/08/2023 -FN	Introduction to SCADA & SCADA System for Distributive Automation
04/08/2023 -AN	Hands-on Training
05/08/2023 -FN	SCADA application in Industry, HARDWARE View of PLC Controller & Traffic Light control System using SCADA
05/08/2023 -AN	Hands-on Training & validatory function



Out Comes:

1. The Faculties learned the PLC software along with simulation tools.
2. The Faculties can be able to teach the PLC theoretically as well as Practically to our Students.
3. The Faculties learned the SCADA.
4. The Faculties can be able to teach SCADA to our students.

On behalf of Dept. of ECE and Dept. of EEE expressed our gratitude to the Management and Dr. C Yuvaraj, Principal for giving permission to attend and financial support to organize this program. We thank Dr. C. Kamal Basha, Professor & Vice Principal-Administration for providing necessary needs in intime and his constant support. And We Thank Dr. A.V Pavan Kumar, Professor & HoD/EEE, for his continuous guidance in all the parameters and his motivation. Finally, we thank Dr. S. Rajasekaran Professor & HoD, / ECE for giving the opportunity to us for coordinating this five-day faculty development program.

EVENT-13

Department of Electrical & Electronics Engineering organised An Alumni Guest Lecture on “Pathway Towards Software Opportunities” on 5th August 2023.

The programme is started at 1:30 PM with a welcome address to all the audience by the Dr. A V Pavan Kumar, H.O.D, EEE, MITS, Madanapalle. The resource person was Mrs. NagaNandini Polichetty, Senior Consultant in Cognizant, Bangalore, Karnataka.

The brief introduction to resource person was given by Mr.M.Venkatesh, AP/EEE, after that session is handover to Mrs. NagaNandini Polichetty, Senior Consultant in Cognizant, Bangalore, Karnataka.

The resource person started the session by extending his hearty thanks to the participants, organising members, HoD, Principal and Management of MITS Madanapalle for giving him opportunity to share her knowledge and experience in “Software Industry”.

The topics covered by resource person are related to the career opportunities in software industry and acquire knowledge to meet the corporate industries. The session started from the basic needs for getting job in software industry and its gone so far how to sustain in that, field.

The following topics were interacted with students to update their basic skill sets to meet the corporate requirement. 1. Self-confident 2. Personality development 3. Interview Preparation 4. Opportunities in Software 5. Communication skills 6. Proficiency in programming languages 7. Coding skills 8. Outstanding time-management and organisational skills.

The session concluded at 2.30 PM with the vote of thanks given by Mr. M. Venkatesh. AP/EEE. I would like to take this opportunity to thank the Management, Principal, Vice-

Principals, HOD and all the people who directly and indirectly involve in organizing this event.



EVENT-14

Department of Electrical and Electronics Engineering organized A Virtual Guest Lecture on "Machine Learning Techniques: An Overview" on 16th August 2023.

The Department of Electrical and Electronics Engineering at Madanapalle Institute of Technology and Science in Andhra Pradesh, India, has organized a Virtual Guest Lecture on "Machine Learning Techniques: An Overview" on 16th of August, 2023. The lecture was attended by approximately 110 MITS participants, including faculty.

A summary of the Guest Lecture is as follows:

The program started at 10:25 in the morning. Dr. A.V. Pavan Kumar, Professor and Head of EEE, MITS, welcomed the resource person, faculty members, and students. He thanked the Management and Principal for giving permission and financial support to organize this program. He has emphasized the importance of Machine Learning Techniques and Applications of Machine Learning to the students.

Dr. J. Jawahar Babu, an Assistant professor in the EEE department, briefly introduced the resource person, Dr. G. Parthasarathy, and then handed over the session to him. Dr. T.S.

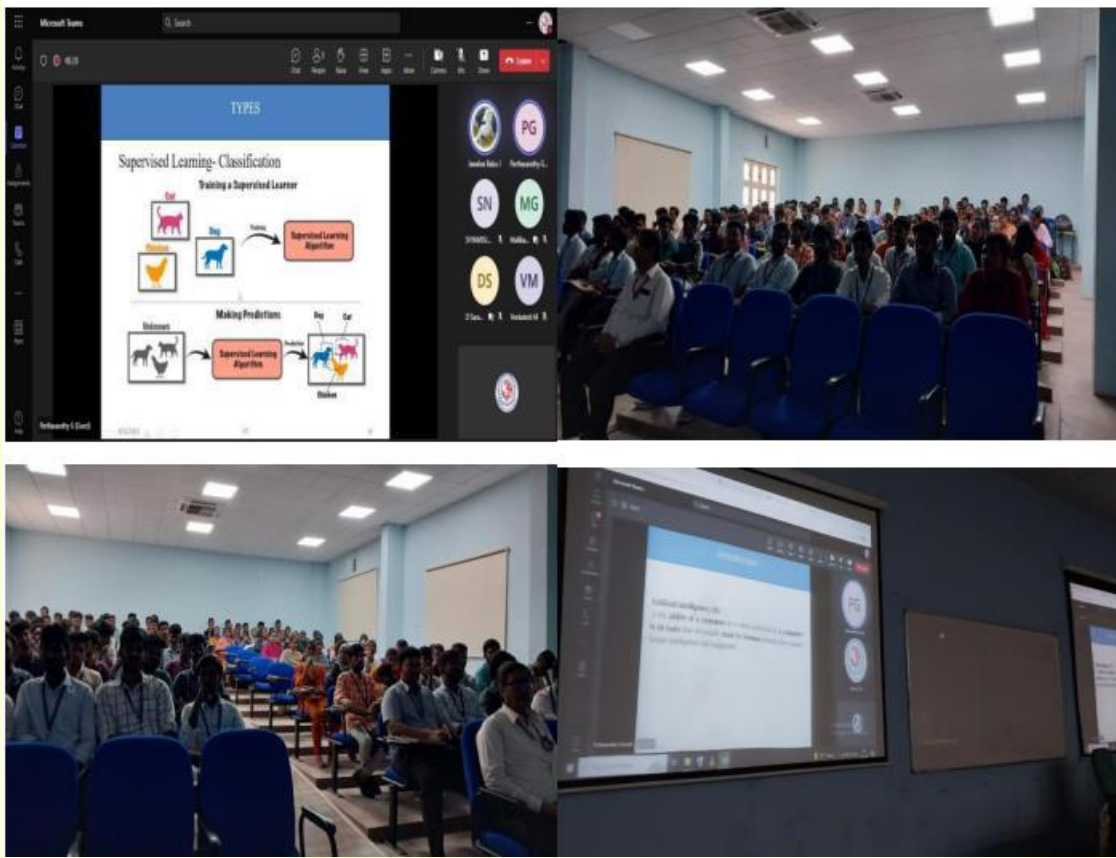
Balaji Damodhar, Assistant Professor in the Department of EEE, extended his support for the smooth conduction of the program.

The resource person (Dr. G. PARTHASARATHY) started the session by offering hearty thanks to the participants, organizing members, HoD, Principal, and Management of MITS Madanapalle. At the outset, he briefed on various discrete domains where machine learning principles have already been implemented. Then he started discussing different learning concepts, i.e., supervised, unsupervised, semi-supervised, and reinforcement Learning. Finally, he gave a live demo on classification and Regression problems, which comes under supervised learning.

The session was concluded at 11.55 AM, followed by a vote of thanks given by the Coordinator of the Virtual Guest Lecture Dr.J. Jawahar Babu, Assistant Professor, Department of EEE, MITS, Madanapalle.

Outcomes of the Guest Lecture:

- Gained a complete understanding of machine learning and its types.
- Acquired valuable insights on recent machine learning research
- Understood the real-world applications of machine learning
- Learned to develop and validate a model from training data



EVENT-15

Department of Electrical & Electronics Engineering & Entrepreneurship Development Cell organized An Online Webinar on "Entrepreneurship Opportunities in the Livestock Sector" on 19th August 2023.

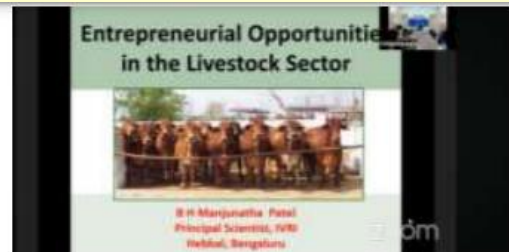
The programme is started at 10:00 AM with a welcome address to all the audience by the Ms. Revathy Gopinath, Assistant Professor, EEE, MITS, Madanapalle. The resource person was Dr. B.H. Manjunath Patel, Principal Scientist, ICAR-IVRI.

The resource person started the session by extending his hearty thanks to the participants, organising members for giving him opportunity to share his knowledge and experience in "Entrepreneurship Opportunities in the Livestock Sector".

The topic the resource person covered is Entrepreneurship Opportunities in the Livestock Sector. The audience was made aware of the following through his presentation.

- Livestock Sector • Types of farming system
- Goat and sheep farming, Cattle/buffalo farming

- Details of Investment • Purpose of farm • Commercial farm • Slaughtering for pork purpose • Salvation of male buffalo calves for meat production • Broiler Rabbit farming • Feed related entrepreneurship • Exploration of feed ingredients • Feed types • Small scale feed factory • Sugarcane industry by products • Pellet making machine • Jaggery by product
- National Livestock Mission • Vermiculture Technology • Geo Membrane Biogas • Livestock Implements • Farm Implements • Use of pedometers.



Details of investment		
A. CAPITAL COST		
Land, sheds and other structures		Rs. 2,00,000
Equipment and vehicles of the group		Rs. 40,000
Working stock		Rs. 400,000
Inventory (feed)		Rs. 10,000
Total Capital Cost		Rs. 6,50,000
B. BREEDING COST		
100 Buffalo Breeding experiment @ 11 months		Rs. 1,00,000
Total Project Cost		Rs. 7,50,000



Department of Electrical & Electronics Engineering In Association with DRDO organized A Technical Seminar on “Challenges Involving Size, Weight and Power (SWaP) in an UAV” on 21st & 22nd August 2023.

Summary of the Programme

At 10.00 am the inauguration ceremony of the programme commenced followed by lamp lighting and prayer song. The programme convenor Dr. K.Arul kumar welcomed the chief guest DR. CH. CHENGAIHAH, Professor, Department of Electrical & Electronics Engineering, Sri Venkateswara University, Tirupathi, Andhra Pradesh. He also welcomed Dr. C.Yuvaraj, Principal. Dr. Sivaiah, Dean R&D, and Dr. A.V.Pavan Kumar, Department of Electrical & Electronics Engineering.

The convenor addressed the gathering by giving the importance of the two-day national level technical programme on the topic Challenges Involving Size, Weight and Power (SWaP) in an UAV and also thanked DRDO sponsoring this event. An audio/video of DRDO is presented to the gathering in the seminar hall – A. Achievements of DRDO is also highlighted. All the dignitaries on the dais addressed the importance of the seminar topic. Participants, Students and faculty have been in the inauguration of the seminar

The chief guest, Principal, R&D dean and HOD have congratulated the convenor, department to be a grand success.

Session 1 - At 11:00 AM

Dr. CH. CHENGAIHAH, Professor, Department of Electrical & Electronics Engineering, Sri Venkateswara University.

Topic: “An Overview of Unmanned Aerial Vehicles (UAV): Operation and Challenges” taken by Dr. Chengaiah, Professor. The topic addressed the importance of the UAV in emergency response and control system involved in stabilizing the system.

Session 2- At 3:00 PM Resource Person: Dr K Veningston, Assistant Professor, National Institute of Technology,Srinagar.

Topic: Machine Learning Algorithms in Unmanned Aerial Vehicles (UAVs) Day -02 commences next day 10.00 am as per schedule. He has covered the data analytics in UAV system. Collection of data from wind velocity, temperature, directions. From that data

collection how, the training is given to machine learning. He has taken a keen in giving examples.

Second day : 22.08.2023.

Session 03: At 10:00 AM

Resource Person: Dr. M Brindha, Associate Professor, National Institute of Technology, Tiruchirapalli.

Topic: Artificial Intelligence in Unmanned Aerial Vehicles (UAVs) The session started with Multi-Objective Genetic Algorithm for solving Mission Planning and Replanning problems and a Procedure Following Evaluation methodology based on Petri Nets. UAV operations from the Ground Control Stations (GCSs). Some of the most demanded applications in this field are the reduction of the workload of operators and the automation of training processes.

Session 04: 2:00 PM Resource

Person: Dr Suprava Chakraborty, Associate Professor, TIFAC-CORE Research Center, Vellore Institute of Technology, Vellore.

Topic: Unmanned aerial vehicles (UAVs): Applications, Challenges, and Future Trends. The session started with giving the introduction to UAV and its importance in day today life. Particularly dealt with the topic Security and Privacy Issues, UAV Network Design Issues, Localization and Trajectory, fixed wing and multi rotors. Challenges are open in Network Coverage, AI Algorithm Design. Other new technology Lidars, UAV systems also been discussed further. The importance of DRDO in the student career have also been discussed like projects, Internships, JRF & SRF.

The participants have interacted with the session speaker and clarified the doubts.

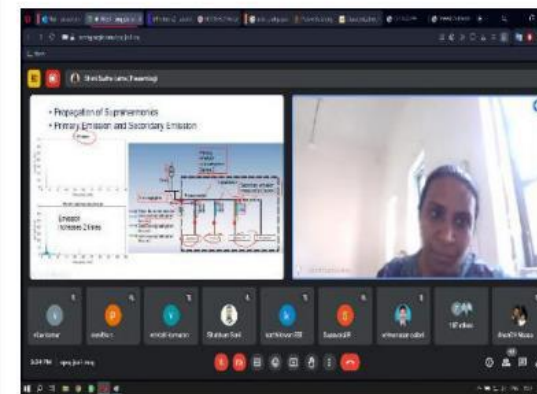
At. 04.15 – Certificate Distribution followed by Vote of Thanks.



EVENT-17

Department of Electrical & Electronics Engineering organized A One Week Faculty Development Program on “Smart Grid and Integration of Distributed Generation” from 28th August to 01st September 2023.

The online one-week FDP was inaugurated on 28th August 2023 at 9:30 AM with a welcome address to all the audience by the Dr. A.V. Pavan Kumar HoD, EEE, MITS Madanapalle, and followed by inaugural address by Dr. Lini Mathew, Professor & Head, Electrical Engineering Department, NITTTR Chandigarh through google meet. The brief introduction about the FDP and the resource person was addressed by Mr. Saravanan D.



EVENT-18

Department of Electrical & Electronics Engineering organized An Alumni Guest Lecture on “DevOps And AIOps Career Planning” on 08th September 2023.

The programme is started at 9:00 AM with a welcome address to all the Participants and the resource person Mr. Manoj K, DevOps/ SRE in MEDLINE INDUSTRIES LP, TEXAS, US by the Dr. A V Pavan Kumar, H.O.D, EEE, MITS, Madanapalle. The brief introduction to resource person was given by Dr. A V Pavan Kumar, H.O.D, EEE, after that session is handover to Mr. Manoj K, DevOps/ SRE in MEDLINE INDUSTRIES LP, TEXAS, US. The resource person started the session by extending his hearty thanks to the participants, organising members, HoD, Principal and Management of MITS Madanapalle for giving opportunity to share his knowledge and experience on “DevOps and AIOps”. The topics were covered by resource person are related to the career opportunities in software industry based on DevOps and acquire knowledge to meet the corporate industries. The session started from the basic needs for getting job in software industry and it gone so far how to sustain in that, field.



EVENT-19

Skill Development Center in Association with Department of Electrical & Electronics organized A Six-day Skill Development Training Program on "Industrial Automation with PLC" from 04.09.2023 to 09.09.2023.

The APSSDC- Skill Development Cell, Madanapalle Institute of Technology and Science, Andhra Pradesh, Madanapalle in association with the Department of Electrical & Electronics Engineering, MITS has organized a six-day skill development program from 04.09.2023 to 09.09.2023 on “Industrial Automation with PLC” In this program, about 68 participants participated and made the event grant success.

A summary of the skill development program is as follows:

Dr. P. Ramanathan, Professor & Vice Principal-Academics, MITS, and Dr. A. V. Pavan Kumar, Professor & Head of the Dept., Dept. of Electrical & Electronics Engineering, welcomed the resource person. Dr. A. V. Pavan Kumar, HOD / Electrical & Electronics Engineering, gave a brief introduction to the six-day skill development program. Dr. V B Thurai Raaj, Assistant Professor in EEE & SPOC-APSSDC t-SDI, introduced the resource person and he handed over the session to the resource person. Dr. P. Ramanathan, Professor and Vice Principal-Academics, inaugurated the program with his motivational speech.

The 68 students from the third year and two faculties from the Department of Electrical & Electronics Engineering participated in this six-day hands-on training program.

Day-1(04.09.2023) Morning session: Internal Architecture of PLC, Introduction to PLC, types of PLC programming languages Afternoon session: Normally open and normally close and Ladder logic

Day-2(05.09.2023) Morning session: Logic gates implementation using PLC Afternoon session: Latching conditions, blinking programs

Day-3(06.09.2023) Morning session: Looping concepts, Push button programming Afternoon session: Timer operations

Day-4(07.09.2023) Morning session: Delay operations and counting operations- Incremental counting Afternoon session: Counting operations- Decremental counting, Incremental/ Decremental counting

Day-5(08.09.2023) Morning session: Memory coils Afternoon session: Automation Applications- quizzing, traffic light

Day-6(09.09.2023) Morning session: Automation applications machine, automatic gate systems Afternoon session: Automation applications-Elevator, metal detector.

Total number of students attended: 68 Outcomes: students can be able to 1. Learn the Circuits & Drawing Designing 2. Understand the modern industrial automation systems. 3. Demonstrate working of PLCs in the industry 4. succeed in a core interview & get a core job.

EVENT-20

Skill Development Center in Association with Department of Electrical & Electronics organized A Six-day Skill Development Training Program on "Python Programming" 11.09.2023 to 16.09.2023.

The APSSDC- Skill Development Cell, Madanapalle Institute of Technology and Science, Andhra Pradesh, Madanapalle in association with the Department of Electrical & Electronics Engineering, MITS has organized a six-day skill development program from 11.09.2023 to 16.09.2023 on “Python Programming” In this program, about 68 participants participated and made the event grant success.

A summary of the skill development program is as follows

Dr. A. V. Pavan Kumar, Professor & Head of the Dept., Dept. of Electrical & Electronics Engineering, welcomed the resource person and gave a brief introduction to the six-day skill development program finally he inaugurated the program with his motivational speech. Dr. T.S. Balaji Damadhar, Academic Head, Dept. of EEE addressed the gathering in inaugural session he said about importance of PLC. Dr. V B Thurai Raaj, Assistant Professor in EEE & SPOC-APSSDC t-SDI, introduced the resource person and he handed over the session to the resource person.

The 68 students from the third year and two faculties from the Department of Electrical & Electronics Engineering participated in this six-day hands-on training program.

Day-1(12.09.2023)

Morning session:

Downloads, Installation, and Configuration of Python Software, Version Check, Different ways to execute Python programs, Overview of Basic Procedure, Advanced Editor, and IDLE.

Afternoon session: Pip Version check, Upgrade, Jupyter Notebook Installation, Jupyter Notebook Overview, Markdown Format with sample example on it, Variable with sample example on it.

Day-2(13.09.2023)

Morning session: Markdown Format with sample examples on each, Variable Assignment Types with sample examples on each.

Afternoon session: Data types, Operators, and Input Formatting with sample examples on each.

Day-3(14.09.2023)

Morning session: Output Formatting with sample examples on each, Conditional Statements Overview. Afternoon session: If, if-else, nested if, and elif with sample example on each, Loops Overview, For, range, and while with sample example on each.

Day-4(15.09.2023)

Morning session: While with a sample example on each, Jumping Statements (break, continue, and pass) with a sample on each.

Afternoon session: Inner Loops, Function argument types, user-defined function types, function argument types overview.

Day-5(16.09.2023) Morning session: Function types, User Defined function types with sample examples on each. Afternoon session: Function Argument Types, Data Structures Overview, List and tuple methods with sample examples on each.

Outcomes: students can be able to 1. Understand the syntax and semantics of Python. 2. Demonstrate the use of Python lists and dictionaries. 3. Demonstrate the use of Python File processing, directories 4. succeed in an IT Industry interview and get an IT job.

EVENT-21

Department of Electrical and Electronics Engineering organized A One Day



Industrial Visit to “Delphi TVS-Chennai” on 17th October 2023.

The Bus started at 4AM from MITS college and the entire team of students and faculty reached Delphi TVS company, Chennai at 9.30AM and then they were given a nice introduction about the company by Mr. Nagarajan, DGM of that company. At the beginning of the presentation, the eminent person Mr. Purushotham HR and Mr. Srinivasan, Dy General Manager of the company gave some important steps to identify and create the interests for Electrical and Mechanical engineering and implement the same as Mini Projects and Main Projects while studying as per the B.Tech Curriculum.



EVENT-22

Department of Electrical & Electronics Engineering on 04th November 2023 organised A Guest Lecture on "Role of Optimization Techniques in Electrical Engineering" on 04th November 2023.

The programme is started at 1.00 PM with a welcome address to all the audience by the Dr. A V Pavan Kumar, H.O.D, EEE, MITS, Madanapalle. The resource person Dr. Naladi Ram Babu Associate Professor, Aditya Engineering college, Surampalem, India, was introduced by Dr. Gumpu Srinivasulu, Assistant Professor, Dept. of EEE.

The resource person started the session by extending his hearty thanks to the participants, IEEE ad ISTE coordinators, executive members, HoD, Principal and Management of MITS Madanapalle for giving him opportunity to share his knowledge and experience in "Role of Optimization Techniques in Electrical Engineering".

The resource person highlighted the various types of optimization techniques and their applications in the automatic generation control. Also, he focused on the various challenges in the implementation of AGC in the thermal generation plants.. Besides, the growth in market and opportunities in the power system sector are being discussed during the session. The distinguished speaker discussed various optimization based controllers for AGC. Also, the basic architecture of different controllers are elaborated Dr. Naladi Ram Babu. During

the session, the major opportunities, power converters and controllers design are being focused by the speaker. Besides, the prominent resource person pointed that there are huge number of opportunities for the engineering graduates in recent decades. Moreover, possibilities and innovations in solar sector are being highlighted during the session. At the end, the prominent speaker underlined the career opportunities for graduates. Also, speaker assured to help the participants/students for any kind of research guidance.

The screenshot shows a Zoom meeting interface. The main window displays a presentation slide titled "Why Optimization Techniques are needed?". The slide features a central diagram with "optimization" in a central green circle, connected to five surrounding green circles: "Reduce the cost", "Safety & reduce the error", "Innovation & efficiency", "reproducibility", and "Save the time". The ADITYA logo is in the top right corner of the slide. Below the slide, a "Participants" panel is visible, listing attendees: DB (Dr. Naladi Ram Babu), HOD-EEE, Rohini, LK (Lakshmi Reddy), DK (Dr. Lakshmi), and SG (Sharan Kumar Reddy, A). A chat window is also open, showing a list of participants including priya (Guest), Rohini, M, Mahesh Babu, P, Mari Deepthi, M, and Kavya, V R.

EVENT-22

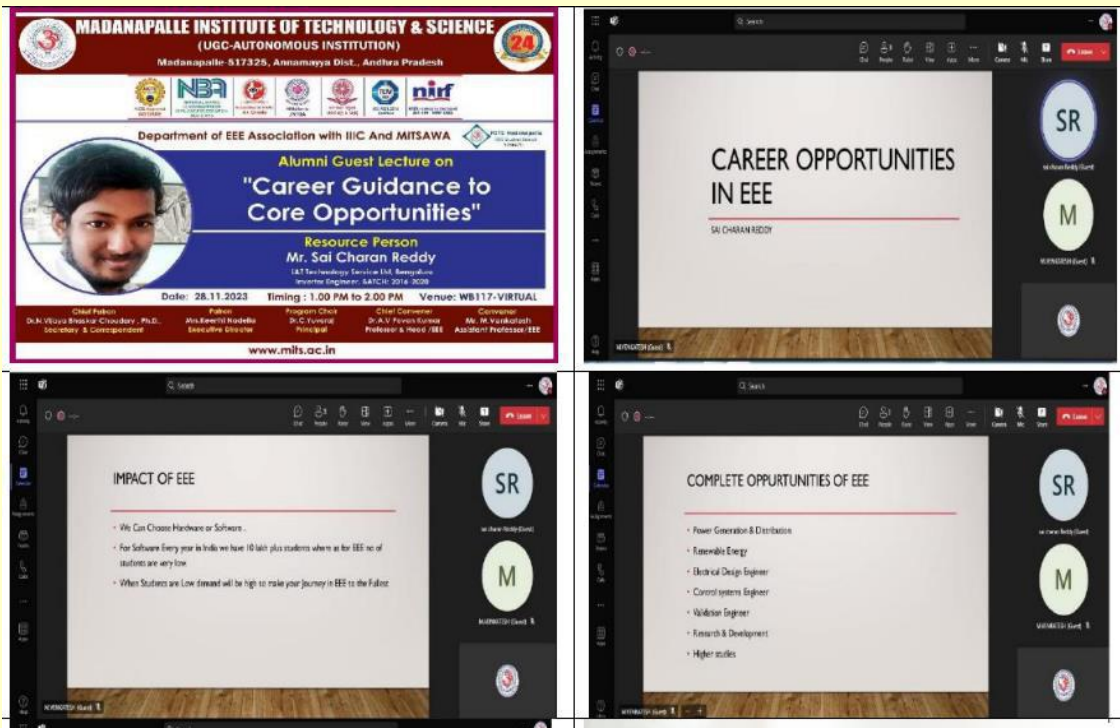
Department of Electrical & Electronics Engineering In Association with IIC & Alumni Welfare Association organized An Alumni Guest Lecture on “Career Guidance to Core Opportunities” on 28th November 2023.

The Event is started at 1.00PM with a welcome address to all the Participants and the resource person Mr. Sai Charan Reddy, Inverter Engineer, L&T Technology Service Ltd Bengaluru by the Dr. A V Pavan Kumar, H.O.D, EEE, MITS, Madanapalle.

The brief introduction to resource person was given by Dr. A V Pavan Kumar, H.O.D, EEE, after that session is handover to Mr. Sai Charan Reddy, Inverter Engineer, L&T Technology Service Ltd, Bengaluru.

The resource person started the session by extending his hearty thanks to the participants, organising members, HoD, Principal and Management of MITS Madanapalle for giving opportunity to share his knowledge and experience on “Career Guidance to Core Opportunities”.

The following topics were interacted with students to update their basic skill sets to meet the corporate requirement. 1. Advantages of choosing core jobs. 2. Skill sets for core jobs 3. Opportunities for EEE 4. List of Core private companies & government companies 5. Opportunities in R& D for EEE 6. Opportunities in Design oriented core jobs 7. How to get placed in L&T. 8. Importance of MATLAB & software’s in Design Engineering jobs 9. Salary packages in core companies.



EVENT -23

Department of Electrical & Electronics Engineering organized An Industrial Visit to “Rayalaseema Thermal Power Project (RTPP) on 03rd December 2023.

The Industrial Visit to RTPP, started at 6.15 AM by college bus and reached the plant by 11.30 AM. Total crew was divided into five batches with a size of 12 students under the guidance of each faculty member. The students along with faculty members visited the plant between 12 .00 PM and 2.00 PM. Sri P. Hari Babu, AEE/O&M/ Stage-II/RTPP elaborated the functioning mechanism of the Rayalaseema Thermal Power Project (RTPP) and strongly insisted the safety precautions that should be adhered during the visit.

Field Visit information: During the visit to the Rayalaseema Thermal Power Project (RTPP), the students had the opportunity to explore various critical segments of the power plant, engaging with experts and observing the operational intricacies first-hand. The segments visited included:

- Cooling Towers: Understanding the cooling process vital for plant efficiency.
- Unit Control Board (UCB): Exploring the central control system managing the units.
- Main Control Room (MCR): Observing the nerve centre overseeing plant operations.
- Turbine Floor: Gaining insights into turbine functionality and power generation.
- Switchyard: Understanding the power distribution network.
- Generator Transformer Yard: Exploring the essential transformer units for power generation.
- Boilers: Examining the critical components for steam generation.
- Bunkers: Understanding storage areas for fuel.
- Mills (pulverized coal): Observing coal grinding and its role in the process.
- Cooling Tower Pump House: Understanding the pumping mechanisms for the cooling system.



Faculty Publications -2023-2024

2023-24 SCI Publication List

S.No	Author	Co-authors	Title of the Paper/book/book chapter	DOI	Impact Factor	Publisher
1	C. H. Srinivas	I. Kranthikumar, T. Vamsee Kiran, P. Pradeep, V. Balamurugan	A novel hybrid approach for efficient energy management in battery and supercapacitor-based hybrid energy storage systems for electric vehicles	https://doi.org/10.1007/s00202-024-02483-9	1.7	SPRINGER
1	T.S. Balaji Damodar	P. Anandan, C. Nalini, M. Asha Jerlin, Akila Victor, K. Anusha, R. Jothilakshmi	A mutual certificate-based data privacy scheme for ubiquitous and sustainable computing system users	https://doi.org/10.1016/j.seta.2023.103356	7.1	ELSEVIER
3	Gourav Kumar Suman	Suman Yadav, Josep M Guerrero	A novel LF-TLBO-based optimization scheme for islanding detection in microgrids	https://doi.org/10.1007/s00202-024-02512-7	1.7	SPRINGER
4	Suman Yadav	Gourav Kumar Suman Ram Krishna Mehta	Enhanced Thermodynamic Modeling of Converter Transformer Influenced by DC Bias	https://doi.org/10.1109/JMMCT.2023.3334563	3.9	IEEE XPLORER

2023-24 Scopus Journal Publication List

S.No	Author	Co-authors	Title of the Paper/book/book chapter	DOI	Publisher	Index	Type
1	Chodagam Srinivas,	Dr. M. Rama Prasad Reddy, Bireddi Eswararao, Rajendraprasad Kuriti and Dr. M. Koteswara Rao	Addressing Power Loss and Voltage Profile Issues in Electrical Distribution Systems: A Novel Approach Using Polar Bear Gradient-Based Optimization	https://doi.org/10.37391/IJEER.110323	International Journal of Electrical and Electronics Research (IJEER)	Scopus	Journal

2	Dr. V. B. Thurai Raaj	R. Jayaprakash, A V Pavan Kumar	Supplementary for waste Heat Recovery in Electrical Power Generation	https://ijritcc.org/index.php/ijritcc/article/view/10181	International Journal on Recent and Innovation Trends in Computing and Communication	Scopus	Journal
3	K. Lakshmi Khandan	NMG Kumar, Umamaheswari Krishnasami, K. Kirubakaran, K. Vinoth, S. Kaliappan, Lakshmana Phaneendra Maguluri, Dr. A. Rajaram	Enhanced Predictive Model for Grid Stability Using Hybrid GBM-LSTM Approach	https://doi.org/10.20508/ijrer.v14i1.14591.g8880	INTERNATIONAL JOURNAL of RENEWABLE ENERGY RESEARCH,	Scopus	Journal
4	Dr. Arapirala Venkata Pavan Kumar	Balamurali Krishna Ponukumati, Anil Kumar Behera, Lipsa Subhadarshini, Manoj Kumar Maharana,	Unbalanced Distribution Network Cross-Country Fault Diagnosis Method with Emphasis on High-Impedance Fault Syndrome	https://doi.org/10.48084/etasr.6917	Engineering, Technology and Applied Science Research	Scopus	Journal
5	K. Lakshmi Khandan	T. murali krishna, s. swetha, v. renuka, g. padmapriya, harschal patil, nellore manoj kumar	Green horizons sustainable practices in data centre networking for environmental conservation	https://scibelcom.net/en/article/lbaYrBL3mm7SJNEhOqvT	Journal of Environmental Protection and Ecology,	Scopus	Journal
6	Chodagam Srinivas	N Madhusudhan Reddy*, Dr. T. Vamsee Kiran, I Kranthi Kumar, Karri Ravikumar Reddy, and K Divya	Optimizing Capacitor Placement in Distribution Systems Under Variable Loading Conditions with Golden Jack Optimization (GJO)	https://doi.org/10.37391/IJEER.120202	International Journal of Electrical and Electronics Research (IJEER),	Scopus	Journal
7	Dr. V B Thurai Raaj	Y. Reddy Kumari P. Divyasree O. Kathyayini V. Sireesha	Enhancing Grid-Integrated Renewable Energy Systems: Modelling and Performance Evaluation of Wind-PV-BESS Hybrid Power with PMSG Extension	https://www.propulsiontechjournal.com/index.php/journal/article/view/6272	Tuijin Jishu/Journal of Propulsion Technology,	Scopus	Journal

8	Ejjirotu Raghu Babu	Jangama Preethi, Ramanna Gari, Nandini, Nagasamudram Yavanika Sai, V R Kavya	Enhanced Grid-Connected Electric Vehicle Charging Station: Integration of MultiRenewable Sources with Fuel Cell and Battery for Improved SOC and Time Efficiency	https://doi.org/10.52783/tjjpt.v45.i02.6473	Tuijin Jishu/Journal of Propulsion Technology	Scopus	Journal
9	Bondu Vijayakumar	Rajesh K S, A V Pavan Kumar, Yanumula Ramanjaneyulu4	Optimizing Battery Charging With A Photovoltaic-Driven DC-DC Boost Converter System	https://migrationletters.com/index.php/ml/article/view/8813	Migration Letters	Scopus	Journal

2023-24 Scopus Conference Publication List

S.No	Author	Co-authors	Title of the Paper/book/book chapter	DOI	Index	Type
1	T. S. Balaji Damodhar	J. Selvi, P. Sathyanathan, S. Sujatha, S. Priya,	Integrating Cloud Computing with IoT for Battery Monitoring in Electric Vehicles	https://doi.org/10.1109/SmartTechCon57526.2023.10391798	Scopus	Conference
2	V Thurai Raaj	V B Kavin Kumar K Devi Karunambiga, Rohith Bhat C Senthilkumar C Neelam Sanjeev Kumar	Efficient Method to Monitor Power Consumption in Industry Using Lorawan and Rs485 Retrofit	https://doi.org/10.1109/ICCCNT56998.2023.10308141	Scopus	Conference
3	M. Venkatesh	Dr. G. Chandrasekaran, Dr. T. Kanthimathi Dr. N. Rathika S. Sujatha	Electric Vehicle Based Hybrid Energy Storage System using IoT	https://doi.org/10.1109/SmartTechCon57526.2023.10391579	Scopus	Conference
4	K S Rajesh	L. M. Merlin Livingston, Elangovan Guruva Reddy, M. Muthulekshmi, E. N. Ganesh	Fuzzy Logic Controlled Photovoltaic system with IoT Technology	https://doi.org/10.1109/SmartTechCon57526.2023.10391552	Scopus	Conference
5	M. Venkatesh	Dr. L. Ramalingam, Dr. S. Muthumarilakshmi, Dr. Umamagewaran	IoT-Based Car Safety System with Airbag Notification for Emergency Assistance	https://doi.org/10.1109/SmartTechCon57526.2023.10391552	Scopus	Conference

		Jambulingam N. Malathi		26.2023.10391442		
6	A. V. Pavan Kumar	P. Balamurali Krishna, & Akkenaguntla Karthik	An Investigation of Fault Detection in Electrical Distribution Systems Using Deep Neural Networks	https://doi.org/10.1007/978-981-99-8007-9_22	Scopus	Conference
7	A. V. Pavan Kumar	C. Kamal Basha and C. Srinivas	Electric Vehicles Battery Management Device – Opportunities and Implications	https://doi.org/10.1109/ICERCS57948.2023.10434054	Scopus	Conference
8	T. S. B. Damodhar	R. Raman, A. A. Gokhale, R. Babuji, K. Sasikala and S. Srinivasan	IoT Enabled Space Vector Modulation Control for Multilevel Converters in Renewable Energy Systems	https://doi.org/10.1109/PEEIC59336.2023.10450937	Scopus	Conference
9	M. Venkatesh	V. G. Sivakumar, C. Gangaiah Yadav, B. Gopi, N. Malathi and S. Velmurugan	IoT Enabled Microgrid System for Enhancing Power Quality Using Adaptive Neuro-Fuzzy Control Algorithm	https://doi.org/10.1109/PEEIC59336.2023.10451678	Scopus	Conference
10	K. ArulKumar	R. Gowthami Venkata Pavan Kumar Arapirala P. Ramanathan V. Arun	Estimating Lithium-ion Battery State of Health with Least Squares Approach for Accurate Assessment	https://doi.org/10.1109/ic-ETITE58242.2024.10493768	Scopus	Conference
11	Mr. Rajesh K S	Dr. T. Kanthimathi, Dr. N. Rathika, A. Jainul Fathima, Dr. S. Srinivasan, Dr. Thamizhamuthu R	Robotic 3D Printing for Customized Industrial Components: IoT and AI-Enabled Innovation	https://doi.org/10.1109/Confluence60223.2024.10463472	Scopus	Conference
12	Chodagam Srinivas	S. Shanmugapriya, K Ramesh Babu, U P Kumar Chaturvedula, Rushi Santhosh Signh T, Karri Phani Santoshi	Control Strategy for Load Frequency Control in Power Systems with Electric Vehicle Charging Stations,	10.1109/ASIANCO N58793.2023.10270616	Scopus	Conference
13	G. Mallikarjuna	A. Parivazhagan, G. Vasumathi, S. Hemajothi and R. Sabitha	Design and Development of an Apple Fruit Disease Identification Methodology Based on Enhanced Deep Learning Strategy	doi: 10.1109/ICONSTE M60960.2024.10568770	Scopus	Conference

14	K. L. Khandan	B. Chandrashekar, J. Pradeep, M. M, M. Sivasubramanian, and J. A. Dhanraj	A Fuzzy Logic Controller for a Photovoltaic System Relying on a Closed-Loop DC-DC Converter	doi: 10.1109/I CONSTE M60960.2 024.10568 741	Scopus	Conference
15	T. S. B. Damodhar	E. G. Reddy, Y. S, B. S. Vathani, S. Sivakumar and N. Malathi	Air Purification Robotics using Cloud and Deep Q Networks for Autonomous Systems	https://doi.org/10.1109/ISTEMS60181.2024.10560117	Scopus	Conference
16	K. L. Khandan	A. S, R. K. Joon, S. R. Devi, , E. Howard and R. M	Self-Adaptive Electronics using Artificial Neural Networks	doi: 10.1109/I CONSTE M60960.2 024.10568 609	Scopus	Conference
17	Dr.K. Lakshmikhandan	Dr.R.Kiranmayi,Ms. Debshree,Bhattacharya,Dr.K.Lakshmikhandan,Dr.M.Sabarimuthu	Special Electrical Machine	Scientific International Publishing House, 978-93-5757-521-8	Scopus	Book chapter
18	Dr.K. Lakshmikantam	Dr.Soni M,Dr.K.Lakshmikhandan,Dr. Y.Sukhi,Dr. N.Loganathan	A Textbook on ELECTRICAL MACHINES	Scientific International Publishing House, 978-93-6132-893-0	Scopus	Book chapter