NEWSLETTER

DEPARTMENT OF
ELECTRICAL AND ELECTRONICS ENGINEERING

Volume - VII July – Sept., 2023 Issue - III

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

COLLEGE OF ENGINEERING (AUTONOMOUS),

ANANTHAPURAMU – 515002,

ANDHRA PRADESH, INDIA

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About the Department

The Department of Electrical Engineering was established in 1946 offering B.Tech course (Electrical and Electronics Engineering) with an intake of 30 students, which was enhanced to 50 in the year 1995 and subsequently to 60 in the year 2009. In 1946 the college was established at Guindy, Chennai and was shifted to Anantapur in 1948. The Electrical Engineering Department offers various M.Tech programs. M.Tech, with specialization in "Electrical Power Systems" was started in the year 1971 with an intake of 25. "Power and Industrial Drives" was started in the year 2001 with an intake of 25. "Control Systems" started in the year 2001 with an intake of 25 and "Reliability Engineering" started in the year 2009 which is an interdisciplinary area with an intake of 18. The Department is having research facilities for Ph.D Programme in Electrical Engineering Discipline.

Institutional Vision

- Committed to expanding the horizon and inspiring young minds towards academic excellence.
- Aims at scaling new heights through advanced research and innovative techniques to keep pace with the ever-changing needs of industry and society at large.

Institutional Mission

- To identify and implement, proven, prevention-oriented, forward-looking solutions to critical, scientific and technological problems.
- To make technology a principal instrument of economic development of the country and to improve the quality of life of the people through technological education, innovation, research, training and consultancy.

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PROGRAM OUTCOMES

PO 1: **Engineering knowledge**: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO 2: **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.

PO 3: **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.

PO 4: **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.

PO 5: **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.

PO 6: **The engineer and society**: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues, and the consequent responsibilities relevant to the professional engineering practice.

PO 7: **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.

PO 8: **Ethics**: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO 9: **Individual and team work**: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO 10: **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.

PO 11: **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.

PO 12: **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.

PROGRAM EDUCATIONAL OBJECTIVES

PEO 1: To excel in professional career and/or higher education by acquiring knowledge in mathematics and Basic sciences, Basic Electrical Sciences, Power Systems, Power Electronics and Electrical Drives.

PEO 2: To identify the problems in society and design electrical systems appropriate to its solutions using latest technologies that are technically sound, economically feasible and socially acceptable.

PEO 3: To exhibit professionalism, ethical attitude, communication skills, team work in their profession and adapt to current trends in technology by engaging in continuous professional development.

PROGRAM SPECIFIC OUTCOMES

PSO 1: The student can apply fundamental knowledge gained during the various courses of the program to analyse and solve the complex problems of Electrical Machines, Control Systems, Instrumentation System, Power Systems and Power Electronic systems.

PSO 2: The student can design electrical, electronics and allied interdisciplinary projects to meet the demands of industry and to provide solutions to the current real time problems.

PSO 3: The student can utilize the knowledge regarding recent techniques and sustainable technologies for developing the projects related to Control Engineering, Smart Grid, Power Quality and Advanced Power System protection to engage in lifelong learning

EVENTS ORGANIZED BY THE DEPARTMENT

Five Day Faculty Development Program on

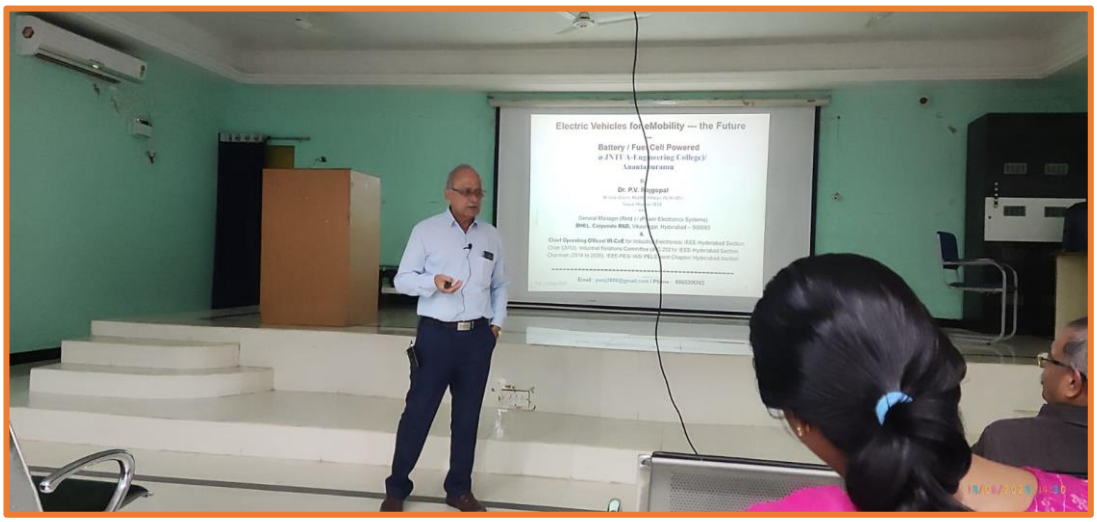
"Design and Development of Power converters for Electric Vehicles"

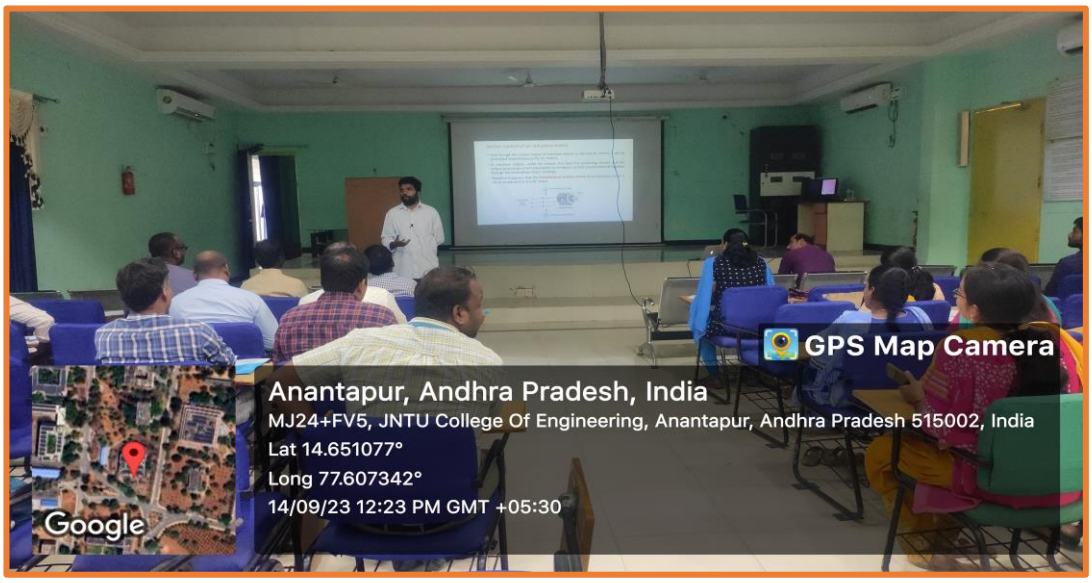
during 11th – 15th September, 2023.

Prof. S. V. Satya Narayana, Principal, JNTUA CEA**,** has presided over the function. Convener of program, **Dr. M. Ramasekhara Reddy,** HoD of EEE Department**,** welcomed the gathering and explained about Advantages of Electric Vehicles in present day-to-day life. Coordinator of program, **Dr. Anka Rao Mogili**, Asst. Prof. of EEE Department, has stated about the objectives of the FDP. Guest of Honour, **Prof. B. Ravi Kumar**, IIT Hyderabad, has given a key Note address of the FDP. Chief Guest **Prof. M. Vijaya Kumar,** Rector of JNTUA, has emphasized the importance of Power converters for Electric Vehicles. **Prof. B. Eswara Reddy,** Program Director, Director of Faculty Development Cell, JNTUA, has given key note on Battery Management System.

Resource Persons of the FDP:

1. Prof. B. Ravi Kumar, Professor, IIT Hyderabad.
2. Mr. M. Malayappan, Founder & Director, Pantech e-learning Pvt. Ltd., Chennai.
3. Prof. K. Siva Kumar, Professor, IIT Hyderabad.
4. Dr. Moupuri Satish Kumar Reddy, NEXIGO Energy Pvt. Ltd, Hyderabad.
5. Dr. N. N. Murthy, Professor, IIT Tirupathi.
6. Dr. P. V. Raj Gopal from BHEL, Corporate R&D, Hyderabad.
7. Dr. T. Vinay Kumar, Assistant Professor, NIT Warangal.
8. Dr. T. Ramesh, Assistant Professor & HoD, NIT, Andhra Pradesh.
9. Dr. Vijayakumar Krishnasamy, Associate Professor from NIT, Trichy.





In valedictory session participants has given feedback of overall sessions and hospitality. After that certificate issued to all participants. Finally, Coordinator Dr. M. Anka Rao proposed a Vote of Thanks.

Guest Lecture on

Current Trends in Engineering Companies

The Department of Electrical and Electronics Engineering has organized a Guest Lecture on **"Opportunities and Trends in Electrical Engineering"** which was held on 04/07/2023. The guest lecture has been organized to create awareness among students regarding Opportunities and Trends in the field of Electrical Engineering. The speaker of the guest lecture was **Dr. A. Raghu Ram**, Professor, Dept. of Electrical and Electronics, JNTU Hyderabad.

The students of M.Tech and Final Year B.Tech of Electrical and Electronics Engineering Department have been attended the lecture. The lecture began with the introduction and welcome address by Dr. N. Visali, Professor & Head of the Electrical and Electronics Engineering Department, JNTUA Ananthapuramu.

The session was then continued by **Dr. A. Raghu Ram**, who starts with an introduction to the current trends in electrical engineering companies. He also specifies a good number of opportunities in the field of Electrical Engineering.

The session ended with hearty thanks by Ms. S. Anusha, Assistant Professor (Adhoc), in appreciation for coming here to educate the students. The session was concluded by Smt. Y. Manasa, Assistant Professor (Adhoc), with a vote of thanks.

FACULTY ACTIVITIES

Papers Published:

- D Daniyelu, **K Nagabhushanam, R Kiranmayi, and M Rathaiah, "A Novel ANFIS Controller Based Distributed Power Flow Controller for Grid Interfaced Hybrid System",** GIS Science Journal, Volume 10, Issue 7, July 2023.
  (**Link:** https://drive.google.com/file/d/1TA7Gj2kG-xqOJ7X-toOaHWLwnNCrwsFY/view?pli=1)

Workshops / FDP's Attended:

- **Sri P. Rizwan** has participated in a One-week National Level Online Faculty Development Programme on **"Recent Trends in Green Energy Initiatives and Soft Computing Techniques"**, during 11th – 15th July 2023, organized by Department of Electrical and Electronics Engineering, Mahatma Gandhi Institute of Technology, Gandipet, Hyderabad.
- **Sri P. Rizwan** has participated in a 5-day online workshop on **"VLSI to System Design: Silicon to End Application Approach"**, during 21st July to 4th Aug. 2023, organized by All India Council for Technical Education (AICTE), Arm Education and STMicroelectronics.

Others:

- **Dr. R. Kiranmayi** was appointed as **Director of Admission,** JNTUA on 6th July 2023.

- **Dr. P Sujatha** was appointed as **Director of Foreign Affairs and Alma Matters,** JNTUA on 6th July 2023.
- **Dr. J. Sreenivaslu** was appointed as **Assistant Control of Examination**, JNTUA on 6th July 2023.
- **Dr. M. Ramasekhara Reddy** was appointed as **Head of the Department,** Electrical and Electronics Engineering, JNTUA CEA on 13th July 2023.

- As part of **NSS Activity** on 29th Aug., 2023, the students of II B.Tech., enthusiastically collected plastic wastes, tea cups, weeds, and dry leaves spread over the surrounding areas. The students gathered all the waste and trash bags to the place where the Department arranged for the removal of collected wastes.

- Visit of **Government Polytechnic, Anantapur** staff & students to the Department. The main objective of the visit was to make the young minds aware about the recent research activities, career opportunities and showcasing the infrastructure of the Department.

STUDENT ACTIVITIES

- **K Suneetha, K Varshitha and P Poojitha** from III B.Tech., won prize at the National Sports Day 2023 Basket Ball competition held at JNTUA College of Engineering (Autonomous), Ananthapuramu on 29th Aug. 2023.
- **K Siddhu Sai** from III B.Tech., won second prize at the National Sports Day 2023, 800mts running competition held at JNTUA College of Engineering (Autonomous), Ananthapuramu on 29th Aug. 2023.
- **A Abhinaya Sree**, **K Suneetha, K Varshitha and D Anusha** has participated in Combined Annual Training Camp – VII, National Cadet Corps (NCC) held at Brahmanapalli, Kuderu, Anantapur during 9th – 18th Sept. 2023.

EDITORIAL TEAM

1. P Fahad Ali
2. Shaik Afrin
3. David Keerthan
4. A Rohitha Yadav
5. C Masthan Vali

COMPILED BY

1. Sri. P. Rizwan, Asst. Professor (Contract)
2. Smt. Y. Manasa, Asst. Professor (Contract)

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