NEWS LETTER

ECE NEWS

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Professor & HOD.

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K.Jyothi Nirmala- II ECE.

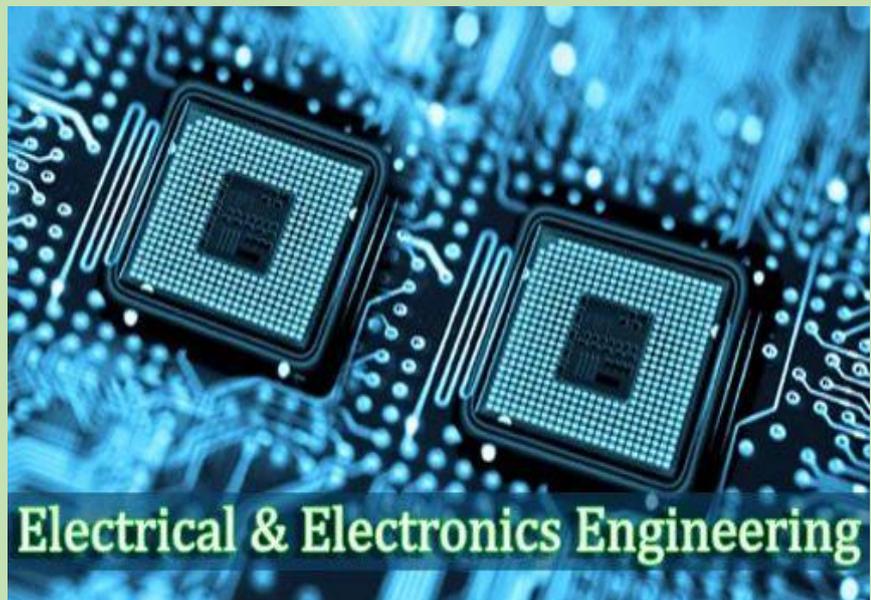**Kurra Om Prakash- III ECE.**

Kadiyala Sravani- III ECE.

Kurra Om Prakash - III ECE.

Challuri Durga Rami -IV-ECE.

Bandrapalli Sirisha - IV-ECE.

Electrical & Electronics Engineering

Department of

Electronics and Communication Engineering

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ABOUT ECE DEPARTMENT

The Department of Electronics & Communication Engineering aims to impart value-based technical education and train students to become well-rounded engineers. Since its inception in the academic year 2008-09 with an initial intake of 60 students, the department has grown significantly. The current intake of the ECE department is 180 students. The department boasts faculty strength of 53 well-qualified, experienced, and dedicated postgraduates, including 11 doctorates, with some faculty members currently pursuing Ph.D.s in various streams.

VISION OF THE DEPARTMENT

To be a pioneer in Electronics and Communication Engineering and research, promoting entrepreneurship and delivering innovative solutions to societal needs

MISSION OF THE DEPARTMENT

M1: To provide a strong foundation in Electronics and Communication Engineering, preparing students to tackle emerging technological challenges.

M2: To drive research in Electronics and Communication Engineering that delivers innovative solutions to societal needs.

M3: To promote lifelong learning, empowering students to adapt to the evolving technological advancements

Program Educational Objectives (PEO's):

The following are the Programme Educational Objectives (PEO's) for Electronics & Communication Engineering Under-Graduate Programme.

PEO 1: Exhibit continuous growth in technical expertise and leadership within the engineering field, while upholding professional ethics.

PEO 2: Communicate effectively and manage resources skillfully as members and leaders of the profession

PEO 3: Commit to continuous learning and adapt to emerging technologies to meet the evolving needs of society.
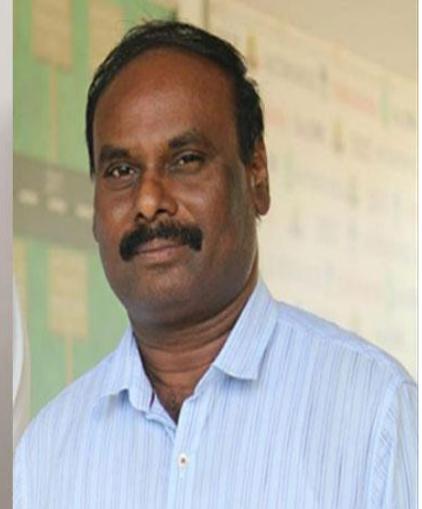
MESSAGE FROM HOD

Dr. B. Nancharaiah

Professor & Head of the Department, Department of ECE,

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Dr. B. Nancharaiah received his B.E. degree in Electronics and Communication Engineering in 1999 from SRKR Engineering College, Bhimavaram, affiliated to Andhra University, India. He obtained his M.Tech degree in Electronics and Communication Engineering in 2003 from Pondicherry Engineering College, Pondicherry Central University, India. He earned his Ph.D. degree in Wireless Communications and Networks in 2017 from JNTUH, Hyderabad, India.

Dr.B.Nancharaiah has been working as Professor and HOD in the Department of Electronics and Communication Engineering at Usha Rama College of Engineering and Technology, Telaprolu, Andhra Pradesh, India, since June 2018. With 23 years of teaching experience, he is a Life Member of ISTE and Fellow of IETE. He has published over 70 papers in reputable national and international journals and conferences. He is the author of two textbooks: Metaheuristic Algorithms in Wireless and Mobile Ad Hoc Networks and Antenna and Wave Propagation. His research interests include wireless communications, networks, and IoTs.

Our department is committed to providing quality education and training to our students, enabling them to excel in their chosen careers. We strive to create a stimulating learning environment that fosters innovation, creativity, and critical thinking. Our faculty members are dedicated professionals with expertise in their respective areas, and we are proud of our strong industry partnerships that provide opportunities for internships, projects, and placements.

Best   regards,

Dr.B.Nancharaiah

Head, Department of Electronics and Communication Engineering

Program Specific Outcomes (PSOs):

PSO1: Develop electronics and communication systems in VLSI, embedded systems, signal processing, and RF communications using advanced tools.

PSO2: Apply ECE knowledge to design, develop, and test systems, considering societal, environmental, ethical, and economic factors.

Program Outcomes (POs):

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

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.

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.

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.

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.

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.

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

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

FDP/Seminars/Webinars/workshops/STTP Attended/ Conducted

Workshops Conducted

1. PCB Design and its Applications

Time	Activity
9:45AM	Lighting the Lamp & Prayer Song
9:50AM	Inviting the Guest on to the dais
9:55AM	Opening Remakes by Dr.B.Nancharaiah, Head of the Department, ECE, URCET.
10:00AM	Message by the Dr.G.V.K.S.V.Prasad, Principal, URCET
10:05AM	Address by Dr.K. Rajasekhar Rao, Director, URCET
10:25AM	Dr.P.Ammi Reddy Professor, ECE Department, VVIT, Nambur.
10:30AM	Felicitation to the guest
10:35AM	Vote Of Thanks
10:40AM	National Anthem

This comprehensive six-day workshop on PCB design provides a structured journey from foundational concepts to practical applications. Beginning with an introduction to PCB basics and EDA tools, participants progressively learn schematic creation, component selection, and PCB layout techniques. The program emphasizes hands-on experience through sessions on design rule checks, simulation, and preparing fabrication files. The later days cover the fabrication process, including soldering methods, followed by testing, troubleshooting, and real-world applications. The workshop culminates with participant project demonstrations and certification, equipping attendees with both theoretical knowledge and practical skills essential for proficient PCB design and manufacturing.

2. MATLAB NS-2

Time	Activity
9:45AM	Lighting the Lamp & Prayer Song
9:50AM	Inviting the Guest on to the dais
10:00AM	Message by the Dr.G.V.K.S.V.Prasad, Principal, URCET
10:05AM	Address by Dr.K. Rajasekhar Rao, Director, URCET
10:25AM	Dr. Aruna Kumari, Associate Professor PVPSIT – Kanuru, Vijayawada
10:30AM	Felicitation to the guest
10:35AM	Vote Of Thanks
10:40AM	National Anthem

This focused workshop on MATLAB and Simulink introduces participants to the fundamentals of the MATLAB environment and the basics of Simulink modeling, including blocks and libraries. Attendees gain practical experience by creating simple system models and simulating various engineering systems such as electrical, mechanical, and control systems, with hands-on examples to reinforce learning. The workshop also explores real-time applications through case studies in control systems, signal processing, and power electronics, fostering collaborative learning through group activities. The day concludes with an interactive Q&A session to address common challenges and discuss potential research or project applications, ensuring participants leave with a solid understanding of MATLAB and Simulink's capabilities.

3. RASPBERRY PI PICO AND ITS APPLICATIONS

Time	Activity
9:45AM	Lighting the Lamp & Prayer Song
9:50AM	Inviting the Guest on to the dais
9:55AM	Opening Remakes by Dr.B.Nancharaiah, Head of the Department, ECE, URCET.
10:00AM	Message by the Dr.G.V.K.S.V.Prasad, Principal, URCET
10:05AM	Address by Dr.K. Rajasekhar Rao, Director, URCET
10:25AM	Dr.M.Ranga Rao Professor, ECE Department, PSCMRCET, Vijayawada.
10:30AM	Felicitation to the guest
10:35AM	Vote Of Thanks
10:40AM	National Anthem

This six-day workshop on Raspberry Pi Pico offers a thorough introduction to embedded systems programming and IoT applications using the RP2040 microcontroller. Starting with the basics of setup, GPIO pinout, and MicroPython programming, participants progress through hands-on exercises like LED blinking and button interfacing. The curriculum advances to sensor integration with ADC, exploring communication protocols such as I2C, SPI, and UART, and practical projects like displaying sensor data on OLED screens. Emphasizing real-world applications, the workshop covers IoT fundamentals with Wi-Fi-enabled boards, cloud data transmission, and home automation. The program culminates in participant project demonstrations, discussions on cutting-edge integrations with AI/ML and robotics, and certificate distribution, equipping attendees with practical skills and insights for academic and industrial applications.

4. Data Analysis Using Python

This six-day workshop offers a thorough introduction to Python programming and its applications in data analysis and machine learning. Participants begin by learning Python fundamentals and writing basic scripts, then advance to handling and cleaning data using powerful libraries like NumPy and Pandas. The course emphasizes data visualization techniques with Matplotlib and Seaborn to create insightful charts and graphs. Moving further, attendees explore exploratory data analysis to understand data patterns and relationships, followed by an introduction to machine learning concepts including supervised and unsupervised learning, with hands-on experience building simple predictive models using Scikit-learn. The workshop culminates with a capstone project where participants analyze a dataset end-to-end, present their findings, and engage in discussions on best practices, preparing them with practical skills and knowledge for real-world data science challenges.

5.PCB Design and its Applications

This two-day workshop provides a practical introduction to PCB design and fabrication, starting with the basics of PCB types and their applications in electronics. Participants get hands-on experience with popular CAD tools like KiCad, Eagle, or Proteus to create schematic diagrams, perform component placement, routing, and generate Gerber files essential for manufacturing. The second day focuses on fabrication techniques, including manual etching and soldering, with an emphasis on safety and practical skills. The workshop concludes with testing procedures using multimeters, real-world application discussions, participant project displays, and certificate distribution, empowering attendees with the foundational knowledge and hands-on experience needed for PCB design and production.

Faculty Development Programmes Attended

1. Dr. Nancharaiah Battula, Professor, participated in a one-day webinar on "Modern Radar Systems and Their Applications" organized by Gayatri Vidya Parishad College of Engineering for Women on 18th September 2021; a five-day FDP on "Advanced Artificial Intelligence and Machine Learning Applications" organized by NIT Warangal from 11th to 15th October 2021; and presented a paper at the conference titled "A Secure Handshaking AODV Routing Protocol (SHSAODV) with Reinforcement Authentication in MANET" held at GIET University from 16th to 18th December 2021.

2. Dr. Santhi Rani Chava, Professor, participated in a five-day faculty development program on "Recent Trends in Next Generation Communication Technologies" organized by Bapatla Engineering College from 16th to 20th August 2021; a one-day webinar on "Modern Radar Systems and Their Applications" organized by Gayatri Vidya Parishad College of Engineering for Women on 18th September 2021; and a five-day FDP on "Emotional Resilience" conducted by AICTE (ATAL Academy) from 25th to 29th September 2021.

3. Dr. Suneel Kumar Asileti, Professor, participated in a five-day faculty development program on "Advanced Artificial Intelligence and Machine Learning Applications" organized by NIT Warangal from 11th to 15th October 2021, and a five-day FDP on "Recent Trends in Next Generation Communication Technologies" organized by Bapatla Engineering College from 16th to 20th August 2021.

4. Dr. Baburao Kodavati, Professor, participated in a five-day faculty development program on "Advanced Artificial Intelligence and Machine Learning Applications" organized by NIT Warangal from 11th to 15th October 2021, and a five-day FDP on "Recent Trends in Next Generation Communication Technologies" organized by Bapatla Engineering College from 16th to 20th August 2021.

5. Dr. Savadam Balaji, Associate Professor, Dr. V.S. Naresh , Professor , Dr. Krishnamoothy Sooraj, Dr. Samiappan Sivalingam, Professor , Dr. Jeya Kumar , Professor , participated in a five-day faculty development program on "Advanced Artificial Intelligence and Machine Learning Applications" organized by NIT Warangal from 11th to 15th October 2021, and a five-day FDP on "Recent Trends in Next Generation Communication Technologies" organized by Bapatla Engineering College from 16th to 20th August 2021.

6. Dr. Ramakrishna Eamani, Professor, participated in a one-day webinar on "Modern Radar Systems and Their Applications" organized by Gayatri Vidya Parishad College of Engineering for Women on 18th September 2021; a five-day faculty development program on "RF Applications Using RFSoC Devices" organized by Veltech University from 22nd to 26th November 2021; and a five-day FDP on "Real-Time FPGA Interfacing of Signal and Image Processing Applications Using HDL" conducted by Veltech University from 20th to 24th December 2021.

7. Dr. Koteswara Kishore Movva, Professor, presented a paper at the conference titled "Survey on Cross Layer Energy Efficient Protocols for WMNs" held at GIET University from 22nd to 23rd October 2021, and participated in a five-day faculty development program on "Recent Trends in Next Generation Communication Technologies" organized by Bapatla Engineering College from 16th to 20th August 2021.

8. Dr. Nitya Kanakamedala, Professor, participated in a five-day faculty development program on "Robotics & IR 4.0" conducted by AICTE (ATAL Academy) from 25th to 29th October 2021; a five-day FDP on "RF Applications Using RFSoC Devices" organized by Veltech University from 22nd to 26th November 2021; and a three-day workshop on "Recent Trends in Communications" held at Shri Vishnu Engineering College for Women from 25th to 27th November 2021.

9. Mr. Sai Siva Jasthi, Assistant Professor, participated in a five-day faculty development program on "Recent Trends in Next Generation Communication Technologies" organized by Bapatla Engineering College from 16th to 20th August 2021, and a five-day FDP on "Robotics & IR 4.0" conducted by AICTE (ATAL Academy) from 25th to 29th October 2021.

10. Mr. Suneel Kattuboyina, Assistant Professor, participated in a five-day faculty development program on "Advanced Artificial Intelligence and Machine Learning Applications" organized by NIT Warangal from 11th to 15th October 2021, and a five-day FDP on "Robotics & IR 4.0" conducted by AICTE (ATAL Academy) from 25th to 29th October 2021..

11. Ms. Uma Guguloth, Assistant Professor, Kota Sandeep Assistant Professor, Sri VenkataSaiKalyan Kothapalli Assistant Professor, SarathAtluri Assistant Professor, participated in a five-day faculty development program on "Advanced Artificial Intelligence and Machine Learning Applications" organized by NIT Warangal from 11th to 15th October 2021, and a five-day FDP on "Robotics & IR 4.0" conducted by AICTE (ATAL Academy) from 25th to 29th October 2021.

12. Ms. Lakshmi Prasanna Ramisetti, Assistant Professor, participated in a five-day faculty development program on "Advanced Artificial Intelligence and Machine Learning Applications" organized by NIT Warangal from 11th to 15th October 2021, and a five-day FDP on "Robotics & IR 4.0" conducted by AICTE (ATAL Academy) from 25th to 29th October 2021.

13. Mr. Rajesh Babu Govada, Assistant Professor, participated in a five-day faculty development program on "RF Applications Using RFSoC Devices" organized by Veltech University from 22nd to 26th November 2021; a five-day short-term training program (STTP) on "Open Source Tools for Efficient Research" conducted by VR Siddhartha Engineering College from 20th to 24th December 2021; and a three-day FDP on "Applications of Remote Sensing and GIS in Environmental Management" organized by Vishnu Institute of Technology from 14th to 16th December 2021.

14. Ms. Battu Chandini, Assistant Professor, Basava Boppana Assistant Professor, Sreedhar Tandle Assistant Professor, Mr. Suresh Pothuraju, Assistant Professor, participated in a five-day faculty development program on "Robotics & IR 4.0" conducted by AICTE (ATAL Academy) from 25th to 29th October 2021, and a five-day FDP on "Role of IoT in Cyber Security" organized by AICTE (ATAL Academy) from 29th November to 3rd December 2021.

15. Mr. Venkanna Penumaka, Assistant Professor, participated in a five-day faculty development program on "Robotics & IR 4.0" conducted by AICTE (ATAL Academy) from 25th to 29th October 2021, and a five-day FDP on "Real-Time FPGA Interfacing of Signal and Image Processing Applications Using HDL" organized by Veltech University from 20th to 24th December 2021.

16. Ms. Siva Padmavathi Donepudi,Assistant Professor, Bhaskar Karra Assistant Professor, Surendra Loya Assistant Professor, participated in a five-day faculty development program on "Role of IoT in Cyber Security" conducted by AICTE (ATAL Academy) from 29th November to 3rd December 2021.

17. Mr. Suresh Pothuraju, Assistant Professor, participated in a five-day faculty development program on "RF Applications Using RFSoC Devices" organized by Veltech University from 22nd to 26th November 2021, and a five-day FDP on "Role of IoT in Cyber Security" conducted by AICTE (ATAL Academy) from 29th November to 3rd December 2021.

18. Ms. Suneetha Gatikanti, Assistant Professor, participated in two five-day faculty development programs: "RF Applications Using RFSoC Devices" organized by Veltech University and "Smart City and Internet of Things" conducted by AICTE (ATAL Academy), both held from 22nd to 26th November 2021

19. Mr. Ravi Muthamala, Assistant Professor, Sreelakshmi Gutta Assistant Professor, participated in a one-day webinar on "Modern Radar Systems and Their Applications" organized by Gayatri Vidya Parishad College of Engineering for Women on 18th September 2021.

20. Ms. Sarala Lokireddy, Assistant Professor, participated in a five-day faculty development program on "RF Applications Using RFSoC Devices" organized by Veltech University from 22nd to 26th November 2021, and a five-day FDP on "Real-Time FPGA Interfacing of Signal and Image Processing Applications Using HDL" conducted by AICTE (ATAL Academy) from 20th to 24th December 2021.

21. Ms. Dharavathu Sneha Latha, Assistant Professor, SrinivasaraoYandrapu,Assistant,Professor,Sai Priyanka Mareedu Assistant Professor, P.Sridhar Assistant Professor, PabathulaMadhava Rao, Assistant Professor, Dr.M.Deepa, Assistant Professor, participated in a five-day faculty development program on "Advanced Artificial Intelligence and Machine Learning Applications" organized by NIT Warangal from 11th to 15th October 2021.

22. Dr. V. G. N. S. Prasad, Assistant Professor, participated in a one-day workshop on "Digital Evolution in Higher Education" organized by EBSCO Information Services on 30th November 2021, and a five-day faculty development program on "RF Applications Using RFSoC Devices" organized by Veltech University from 22nd to 26th November 2021.

23. Dr. Ammana Panchakarla, Assistant Professor, participated in the Faculty Development Programme on "Advanced Artificial Intelligence and Machine Learning Applications" held at NIT Warangal from 11th to 15th October 2021 (5 days), and also attended the FDP on "RF Applications using RFSOC Devices" organized by Veltech University from 22nd to 26th November 2021 (5 days).

24. Sravani Kapavarapu Assistant Professor , Naga Ravi Kumar Kondaveeti Assistant Professor, Padmanabhaiah Gottipati Assistant Professor, M Siva Charan , Assistant Professor, Dr.Mohammed Javeed Ahammed ,Professor,participated in the Faculty Development Programme on "Advanced Artificial Intelligence and Machine Learning Applications" held at NIT Warangal from 11th to 15th October 2021 (5 days), and also attended the FDP on "RF Applications using RFSOC Devices" organized by Veltech University from 22nd to 26th November 2021 (5 days).

25. Ms. U. Aparna Devi, Assistant Professor, successfully completed the Faculty Development Programme on "Embedded Systems" organized by APSSDC from 16th August to 4th September 2021, and also participated in the FDP on "RF Applications using RFSOC Devices" conducted by Veltech University from 22nd to 26th November 2021 (5 days).

Students Participation in Inter College Competitions

Student	Name of the Event	Name of the Organization	Date of the Event	Prize
Bale Bhavana	Coding	SRK Institute of Technology	6 September 2021	First place
Buchepalli Amaranadha Reddy	Presentation	Andhra Layola Institute of Technology	24 August 2021	Third place
Gunnu Vamsi Krishna	Project expo	Andhra Layola Institute of Technology	24 August 2021	First place
Angadala Tejasu	Paper Presentation	Andhra Layola Institute of Technology	24 August 2021	Second Place
Lanka Siva Kumar	Poster Presentation	NRI Institute of Technology	24 August 2021	Third Place

Editorial Members

Chief Editors

Dr.A.Suneel Kumar

Dr.K.Babu Rao

Associate Editors

K.Jyothi Nirmala- II ECE.

Kurra Om Prakash- III ECE.

Kadiyala Sravani- III ECE.

Kurra Om Prakash - III ECE.

Challuri Durga Rami -IV-ECE.

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