SEPTEMBER- NOVEMBER , 2024 VOL . 10 ISSUE 02

NSRIT Autonomous

ELECTRONICS AND COMMUNICATION ENGINEERING

ELECTRONICATION

Industry Integrated Curriculum

Institute Vision

To promote societal empowerment and become an institution of excellence in the field of engineering education, research.

Institute Mission

- To develop the students into outstanding professionals through innovative Teaching-Learning process.
- To uphold research through long term Academia-Industry interaction.
- To inculcate ethical standards and moral values.

Vision of the Department

To become recognized forerunner in Electronics and Communication Engineering by producing competent and responsible graduates.

Mission of the Department

- To prepare technically competent graduates by establishing a conducive learner centric academic environment that uses innovative teaching learning processes
- To create research interests in the graduates by bringing in real time engineering challenges through industry collaborations
- To make the graduates socially responsible citizens who provide sustainable solutions maintaining ethical and professional standards

"If you want to shine like a sun, first burn like a sun."

— A. P. J. Abdul Kalam

Read More on our website

Events at a Glance....

Teachers day Celebration

Teachers' Day was celebrated on 5th september at ECE Seminar hall with great enthusiasm and reverence.The celebration commenced with a welcome speech by keerthna emphasizing the significance of Teachers' Day. Distinguished guests and senior faculty members were present to grace the occasion.

The Principal, Dr. S. Sambhu prasad , addressed the gathering, emphasizing the dedication and hard work of teachers. They appreciated the relentless efforts of the faculty in nurturing students and contributing to their academic and personal growth. The Head of the Department (HOD), Dr. B.Siva Prasad , also spoke on the significance of education and the role teachers play in shaping young minds.

Students expressed their gratitude through various cultural performances, including songs, dances, and skits dedicated to their mentors. Their performances reflected deep appreciation for their teachers.A special interactive session was conducted where students shared their memorable experiences with their teachers. Teachers also shared their insights and experiences, making the event more engaging.

Engineers' Day Celebration

Engineers' Day was celebrated with great enthusiasm on 15th september at ECE Seminar hall . The event was organized by ECE to honor the contributions of engineers and to inspire young minds toward innovation and technology The HOD, Dr, B.Siva Prasad , addressed the gathering, emphasizing the role of engineers in nation-building and technological progress. They appreciated the efforts of students and faculty in fostering innovation and excellence.also spoke on the importance of continuous learning and research in the engineering domain.

As part of the celebrations, various technical events were conducted, including:

Project Expo: Students showcased their innovative projects, demonstrating their technical skills and creativity.

Technical Quiz: A competitive quiz was held to test the knowledge of students in various engineering fields.

Poster Presentation: Participants presented their research and innovative ideas through visually engaging posters.

The winners of these events were awarded certificates and prizes in recognition of their outstanding performances.

Commemorative Events

Gurajada Appa Rao Jayanthi Celebration

The birth anniversary of the renowned Telugu poet and litterateur, Gurajada Appa Rao, was commemorated with great reverence on September 21 at seminar hall The event, organized by ECE Department , aimed to honor the literary contributions of Gurajada Appa Rao and his influence on Telugu literature and social reforms.

The Principal, Dr. S. Sambhu Prasad , addressed the gathering, discussing the impact of Gurajada Appa Rao's writings, particularly his revolutionary play Kanyasulkam, which played a significant role in social reform.

As part of the celebration, various activities were conducted, including:

- Essay Writing Competition: Students wrote essays on the life and literary contributions of Gurajada Appa Rao.
- Poetry Recitation: Participants recited some of his famous poems and literary works.
- Cultural Performances: Students performed skits and songs inspired by his writings.

The event concluded with a vote of thanks delivered by Mrs Y H D Aparna , expressing gratitude to the Chief Guest, Principal, HOD, faculty members, and students for making the celebration a meaningful and memorable occasion.

Student Level Achievements/Recognitions

- SPECATHON 2024, a prestigious 36-hour National Level Hackathon held at St. Peter's Engineering College, Hyderabad, on 20th & 21stSeptember 2024 witnessed intense competition, where Mr. K. Radha Krishna and his team showcased exceptional innovation and secured the 1st prize.

- Mr. MD Adnan Danish and his team secured the 2nd prize at VISTA 2K24, a two-day national-level technical fest held at Vignan's Institute of Information Technology on the 13th and 14th of September, 2024

- Mr. S. Sri Datta and his team received the Best Performance award at "Hack with Nellore," held at Audisankara College of Engineering, Guduru, on the 27th and 28th of September, 2024.

- Students actively participated in various events and won prizes at IEEE DAY 2024, held at Nadimpalli Satyanarayana Raju Institute of Technology (Autonomous), Sontyam, on the 30th of September and 1st of October, 2024.

- At the two-day national-level technical fest held at Gonna Institute of Information Technology and Science on the 1st and 2nd of November, 2024, students showcased their talents and secured multiple prizes:
  PPT Competition: 1st Prize
  PPT Competition: 3rd Prize
  Project Expo: 1st Prize

- 11 students participated in the two-day national-level tech fest for women engineers, held on the 25th and 26th of October, 2024.

Faculty Capacity Building

2 Day workshop on "Innovative teaching learning Pedagogies

A two-day workshop on "Innovative Teaching Learning Pedagogies" was conducted on the 9th and 10th of November, 2025. The workshop aimed to enhance teaching methodologies, explore innovative learning techniques, and improve the overall educational experience for both educators and students. The session was led by the esteemed Prof. D. Sesachalam, who brought in-depth knowledge and expertise in the field of education.

Objectives of the Workshop:

- To introduce modern pedagogical approaches for effective teaching.
- To incorporate technology-driven teaching methods.
- To enhance student engagement through active learning techniques.
- To encourage collaborative learning strategies.
- To provide practical insights into adaptive teaching models

Key Takeaways:

- Participants gained insights into innovative and effective teaching strategies.
- Educators learned how to incorporate digital tools to enhance learning experiences.
- The importance of student engagement and adaptive learning was emphasized.
- Interactive activities provided a hands-on approach to implementing new pedagogies.
- Strategies for assessing and improving teaching effectiveness were explored

Faculty Level Achievements/Recognitions

- Dr. K.Rajasekhar, Associate Professor ,ECE has won young Researcher , Award 2024 from Institute of Scholars Award for exemplary contribution in a research Paper titled "Design and performance analysis of ohmic contact based SPMT RF MEMS Switch" Microsystem Technologies 2023.

- Mrs. M.V.S. Roja Ramani has successfully completed the NPTEL course on "Introduction to Machine Learning" with Elite certification.

- Mrs. B.N. S. RANI has successfully completed the NPTEL course on "Analog Communication" with Elite certification.

- Mrs. KODALI PRIYANKA has successfully completed the NPTEL course on "Analog communication "

- Mrs.MUTCHARLA PADMAPRIYANKA has successfully completed the NPTEL course on ""Digital Circuits" .

Faculty Level Achievements/Recognitions

- Mrs. HARINI CHITAKAL has successfully completed the NPTEL course on "Digital Circuits"

- M.V.S. ROJA RAMANI has successfully completed VLSI CAD Part I: Logic an online non-credit course authorized by University of Illinois at Urbana-Champaign and offered through Coursera

- Dr. N. Kurumurthy has successfully completed the NPTEL course on "Introduction to Internet of Things" with Elite certification.

- Dr. N. Kurumurthy has successfully completed the NPTEL course on "Data Science for Engineers" with Elite certification.

Dr. Konari Rajasekhar received his Ph.D. from Koneru Lakshmaiah (K.L.) University during its 14th Convocation Ceremony. His achievement reflects a significant milestone in his academic and research journey, contributing to the advancement of knowledge in his field.

Quiz

1. _____ Services are the way in which the IoT is connected to data.
a) Cloud b) Bigdata c) Internet d) Network

2. Most IoT problems are addressed at _____ layer
a) TCP b) IP c) API d) UDP

3.identify sensors 

(a)Temperature (b)Proximity (c)IR (d)Humidity

4. .What are the factors that affect the performance of the Ultrasonic Sensor during operation?
a) Distant Target Object b) Target Object hidden by fog c) Smoke d) Dust

5 .identify sensors 

(a)Temperature (b)Proximity (c)IR (d)Humidity

6. The term IoT was coined in?

(a) 2000 b) 1999 c) 1989 d)1995

7. IIoT stands for _____.
a) Intense Internet of Things b) Index Internet of Technology
c) Industrial Internet of Things d)Incorporate Internet of Technology

Engineering Made Simple!

Compact AI Computer For Robots

Banu Prakash ECE A III year (2022-24)

The AI computer is made for tough jobs. It works with robots, machines, and factories. It is fast, strong, and easy to connect.

- IBASE Technology Inc. has introduced the EC3100, a compact edge AI system designed for demanding real-time applications. Powered by NVIDIA Jetson Orin NX and Orin Nano modules, the EC3100 packs a punch with an 8-core Arm Cortex-A78AE CPU and a 1024-core Ampere GPU with 32 Tensor Cores, making it ideal for AI-powered automation, robotics, and surveillance.
- Engineered for durability, the system features a rugged aluminum-steel chassis, wide 9V–36V DC input, and an extended operating temperature range of -20˚C to 70˚C, ensuring reliable operation in harsh industrial environments.

The EC3100 supports LPDDR5 memory with up to 102.4GB/s bandwidth and runs on Ubuntu 22.04, optimized for NVIDIA JetPack SDK 6.2 with Super Mode for enhanced AI performance. A wide range of I/O includes dual Gigabit Ethernet, HDMI, USB 3.2/2.0, RS232, CANBus, audio jacks, digital I/O, and USB Type-C with OTG and recovery support. Dual SIM slots and three antenna jacks enable robust wireless connectivity in the field

key features of the EC3100 include:

- Has a fast 8-core processor and advanced graphics for AI tasks
- Handles high-speed memory with LPDDR5 up to 102.4GB/s
- Comes pre-installed with Ubuntu 22.04, optimized for better AI performance
- Built with a strong metal case for tough environments
- Works in a wide temperature range from -20˚C to 70˚C
- Supports a wide power input range from 9V to 36V

Alumni Experience

Hear it from the people who've been here and enjoyed the journey.

Looking back at my time in college, especially within the Department of Electronics and Communication Engineering (ECE), I feel a deep sense of gratitude and pride. The four years I spent there were truly transformative — both professionally and personally. The ECE department provided a solid foundation in both theoretical concepts and practical applications. The faculty members were not just educators but mentors who guided us through complex topics such as digital electronics, signal processing, VLSI design, embedded systems, and communication networks. Their encouragement to participate in projects, workshops, and paper presentations helped me develop confidence and technical depth.

What stood out the most was the hands-on exposure we received. The labs were well-equipped, and the curriculum was frequently updated to reflect industry trends. Opportunities like final-year projects, internships, and technical fests played a major role in helping me bridge the gap between academics and real-world application.

Beyond academics, the college atmosphere was vibrant. From cultural events and tech symposiums to sports and social service clubs, there was always something happening that made the college experience enjoyable and enriching.

Today, as I work in the industry, I often find myself using the problem-solving skills and engineering mindset that were nurtured during my ECE days. I'm proud to be an alumnus of the department and always look forward to giving back — whether it's mentoring juniors or participating in alumni meets.

To anyone considering ECE or currently pursuing it: embrace every opportunity, stay curious, and make the most of your time. It's a journey worth taking.

Mr. A.Bharath Kumar &Tech mahindra
2020-2024 Batch . ECE)

Sri N.Satyanarayana Raju
Chairman

Dr S. Sambhu Prasad
Principal

Dr. P. S. Raju
Chief Management Officer

Dr. B.Siva Prasad
HOD ECE

EDITORIAL COMMITTEE

Chief Editor:Dr.B.Siva Prasad
Editor (s): Mrs. M.V.S.Rojaramani
One faculty Nominee from each Department: Dr.B.Ravichandra

Student Representatives:

1. **Mr. B.Gowtham (IV ECE)**
2. **Mr. K.Radha Krishna (III ECE)**
3. **Mr. P.Pooja(II ECE)**