JUNE – AUGUST , 2023 VOL. 09 ISSUE 01

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

"You have to dream before your dreams can come true"

— A. P. J. Abdul Kalam

Read More on our website

Events at a Glance....

Guest Lecture on "Technical Paper Writing"

A guest lecture on "Technical Paper Writing" was conducted on 31st July 2023 by Dr. Sunita Mishra, Chief Scientist at CSIR–Central Scientific Instruments Organisation (CSIO), Chandigarh.The objective of this Guest Lecture on "Technical Paper Writing" is to create awareness among the students towards technical writing in a systematic way along with proper research methodology. The lecture aimed to provide students with valuable insights into the intricacies of effectively communicating technical research through written papers and to present their technical knowledge through well structured technical writing.

2 Day workshop on unconventional applications of electronics

A two-day workshop on “Unconventional Applications of Electronics” was organized on 1st and 2nd August 2023, featuring Dr. Sunita Mishra, Chief Scientist at CSIR–Central Scientific Instruments Organisation (CSIO), Chandigarh, as the distinguished resource person.

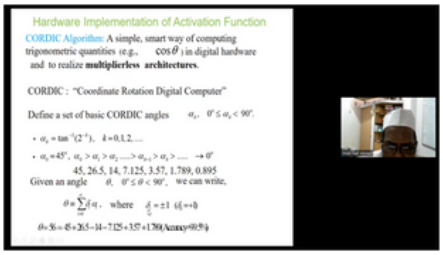
The workshop aimed to create awareness among students about the emerging and unconventional applications of electronics beyond traditional domains. Dr. Mishra shared her expertise on innovative and cutting-edge developments in the field, encouraging students to explore specialized areas within Electronics and Communication Engineering.

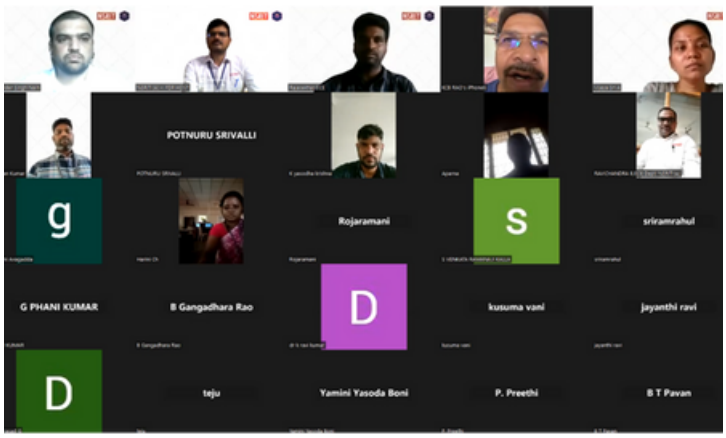
The session provided participants with in-depth knowledge and valuable insights, helping them understand the diverse career opportunities and research avenues in modern electronics. The workshop inspired students to think beyond conventional boundaries and pursue specialized fields aligned with current technological advancements.

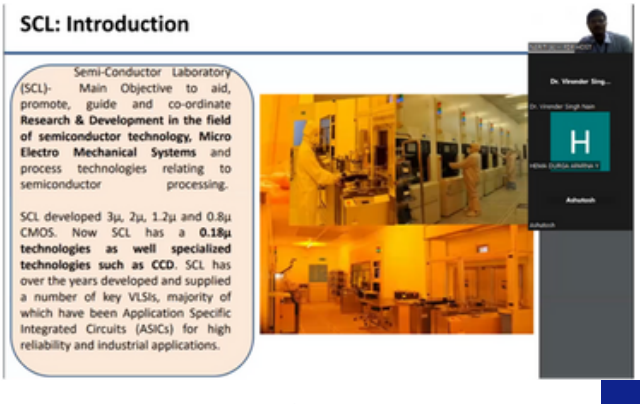
Faculty Capacity Building

2 Day workshop on "Innovative teaching learning Pedagogies

A three-day online Faculty Development Program (FDP) on "VLSI Design and Development" was conducted from 22nd to 24th June 2023, coordinated by Dr. B. Siva Prasad (Convenor), Dr. Virender Singh, and Mr. K. Rajasekhar. The program saw active participation from 72 faculty members representing various engineering colleges. It featured expert sessions by distinguished resource persons including Dr. K. Chandra Bhushana Rao (JNTUGV-Vizianagaram), Dr. Sanjay Singh (CEERI Pilani), Dr. S. Intekhab Amin (Jamia Millia Islamia), Professor Shaik Rafi Ahmed (IIT Guwahati), Dr. K. Srinivas Rao (KL University, Vijayawada), and Mr. Ashutosh Yadav (SCL, Mohali). The FDP aimed to enhance participants' understanding of VLSI design principles, development tools, and recent advancements in the field, bridging the gap between academic knowledge and industry practices.







Facultyt Level Achievements/Recognitions

- The paper titled "Design and Performance Analysis of Ohmic Contact Based SPMT RF MEMS Switch" was authored by **K. Rajasekhar**, K. Girija Sravani, and K. Srinivasa Rao, and published in the journal Microsystem Technologies on July 15, 2023. It appears in Volume 29, Issue 9, spanning pages 1307–1318(SCI)

- Dr. B. Siva Prasad, Dr. Virender Singh, Mrs.Ch.Harini ,Mrs.K.Priyanka and K. Rajasekhar participated in the National Intellectual Property Awareness Mission (NIPAM), organized by the Government of India, Ministry of Commerce & Industry, on 24th July 2023.

- Mrs. M. V. S. Roja Ramani , Mr.G.Durga prasad and Mr. K. Rajasekhar participated in the Faculty Development Program (FDP) on “Recent Trends and Technology Development in IoT & AI,” organized by the Electronics & ICT Academy, NIT Warangal, in collaboration with KL University, Guntur, Andhra Pradesh, from 8th June 2023 to 17th June 2023

- Mrs. Y. H. D. Aparna participated in the program on “Advances in Wireless Communications and Antenna Technologies for Space, Vehicular, and Ground Applications,” organized by Raghu Institute of Engineering & Technology, Visakhapatnam, Andhra Pradesh, on 12th June 2023

- Mrs. B. N. S. Rani, Mr.S.V.Ramanaji Kalla participated in the program on “VLSI to System Design: Silicon to End Application Approach,” organized by Arm Education and STMicroelectronics, from 31st July 2023 to 4th August 2023

- Mrs. A. Vijayasri participated in the one-day program on “Lights and Shadows in Unreal Engine,” organized by NITTTR, Chennai, on 7th July 2023

- Mrs. A. Vijayasri participated in the Faculty Development Program (FDP) on “Machine Learning for Image and Video Analysis,” organized by the Electronics & ICT Academy, IIT Guwahati, from 26th June 2023 to 1st July 2023 (5 days).

- Mrs. A. Vijayasri participated in the program on “Emerging and Convergent Access Technologies,” organized by Raghu Engineering College, Visakhapatnam, Andhra Pradesh, from 8th December 2023 to 10th December 2023.

- Mrs. Y. H. D. Aparna participated in the Faculty Development Program (FDP) on “Machine Learning – In Practice,” organized by Lakireddy Bali Reddy College of Engineering, Mylavaram, Andhra Pradesh, from 19th June 2023 to 24th June 2023.

Quiz

1.A train running at the speed of 60 km/hr crosses a pole in 9 seconds. What is the length of the train?

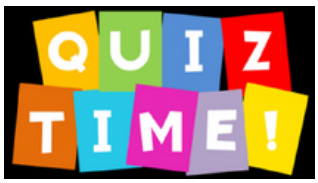
a) 120 metres b) 180 metres c) 324 metres d) 150 metres

2. Father is aged three times more than his son Ronit. After 8 years, he would be two and a half times of Ronit's age. After further 8 years, how many times would he be of Ronit's age?

a)2 times b) 2 ½ times c) 2 3/4 times d) 3 times

3. From a group of 7 men and 6 women, five persons are to be selected to form a committee so that at least 3 men are there on the committee. In how many ways can it be done?

a) 564 b)645 c) 735 d)756



4. In a photodiode the current is due to

a) majority carriers b)minority carriers c)both majority and minority carriers d)either (a) or (b)

5. The first contribution to logic was made by

a) George Boole b)Copernicus c)Aristotle d)Shannon

6. Who invented the transistor?

a) Thomas Edison b) Alexander Graham Bell C) John Bardeen, William Shockley, and Walter Brattain d) Nikola Tesla

7. In a real-time electronic circuit, why are transistors commonly used?

A) To store data like a memory chip
B) To convert AC to DC
C) To act as a switch or amplifier
D) To generate clock pulses

Engineering Made Simple!

Power Relays For Military And Aerospace

A.Chandu ECE A II year (2022-24)

these relays offer robust vibration, shock, and temperature resistance, along with flexible configuration options to meet the toughest system design requirements.

Power Relays For Military And Aerospace

- Microchip Technology has announced the release of its new BR235 and BR235D series of high-reliability power relays. Built to meet the rigorous standards of MIL-PRF-83536 and backed by ISO-9001 certification, these electromechanical relays deliver the performance and reliability needed for mission-critical military, space, and aviation applications.
- The BR235 and BR235D series are hermetically sealed 25A 3PDT power relays designed to perform flawlessly in some of the harshest operating conditions. Offering robust electrical and mechanical endurance, these relays undergo rigorous testing for 30G vibration and 200G mechanical shock, and are qualified to operate across extreme temperature ranges from –70˚C to +125˚C.

The key features are:

- Designed for maximum flexibility to simplify system integration
- Available in both suppressed and non-suppressed models
- Supports coil voltages from 6–48V DC and 115V AC
- Offers multiple mounting styles, with or without mounting tabs
- Terminal options: straight or J-Hook configurations
- Choice of tin or gold plating to meet specific application requirements

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Dr. B.Siva Prasad
HOD ECE

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"If you are planning for a year, sow rice; if you are planning for a decade, plant trees; if you are planning for a lifetime, educate people."