



Autonomous

JUNE – AUGUST, 2024 VOL.10 ISSUE 01

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 cannot believe in God until you believe in yourself ”

— Swami Vivekananda

[Read More on our website](#)



www.nsr.it.edu.in

Events at a Glance...

EXPERT TALK

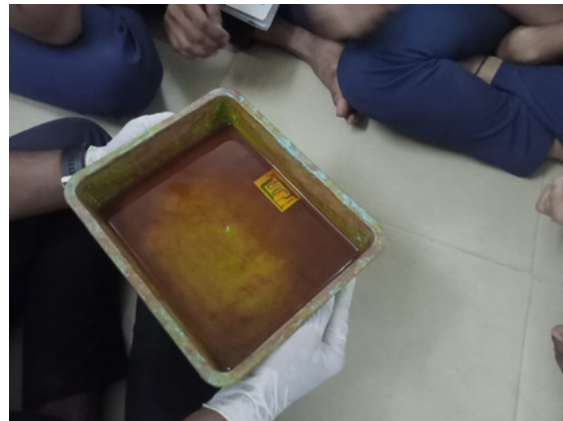


The Department of ECE&IETE Student Chapter, NSRIT conducted a “ Expert talk on EntrepreneurshipDevelopment ” on 24th July 2024 from 2.00 PM to 4:00 PM in the Seminar Hall. Dr.P.ManojBabu,Assistant Professor ,GITAM School of Business ,GITAM University is a resource person for thislecture. This lecture is conducted to get the awareness among the III ECE students towardsEntrepreneurship DevelopmentThe Resource person given talk on EntrepreneurshipDevelopment.The following topics were discussed in the talk .Entrepreneurial Qualities, .New GenBusiness Models, Plan B ,Entrepreneurial Journey – Personal Financial Planning and Simple sigmaEvents.

Hands-on Training

The Department of Electronics and Communication Engineering (ECE) successfully organized athree-day workshop on PCB Design in association with Taurus Technologies Pvt. Ltd., tailoredspecifically for the second-year ECE students. The workshop, which took place from 5th to 7thAugust 2024, aimed to provide students with hands-on experience in Printed Circuit Board (PCB)design, an essential skill in the field of electronics engineering. the workshop Day 1: start withInauguration and Introduction, Day 2: Hands-On Training , Day 3: Project Work and the workshopconcluded with a project demonstration session, where students showcased their designs andreceived constructive feedback from the trainers





Workshop on Embedded System and IOT

The Department of ECE successfully conducted a three-day workshop on Embedded Systems and Internet of Things (IoT) in association with TAURIUS Technologies Pvt. Ltd. The workshop, held from 8th to 10th August 2024, was designed to provide students with hands-on experience in embedded systems and IoT, both of which are critical areas in modern technology. The workshop Day 1: start with Inauguration and Introduction, Day 2: Hands-On Training, Day 3: Project Work and the workshop concluded with a project demonstration session, where students showcased their designs and received constructive feedback from the trainers.



Commemorative Events

National Broadcasting Day

National Broadcasting Day was celebrated with great enthusiasm at NSRIT on July 23, 2024. The event aimed to educate students about the historical significance of broadcasting and its technological advancements. The Department of Electronics and Communication Engineering spearheaded the celebrations, ensuring a blend of educational and interactive activities. A series of lectures were organized, featuring experts from the broadcasting industry and academia. The History and Evolution of Broadcasting by Dr. K.Rajasekhar ,Associate Professor and Technological Advances in Digital Broadcasting by Mr A.Balaram murthy ,Associate Professor. A hands-on workshop was conducted on the principles and applications of digital broadcasting. Students had the opportunity to work with state-of-the-art broadcasting equipment and software. The workshop covered topics such as signal processing, modulation techniques, and the transition from analog to digital broadcasting. an array of educational and interactive activities, culminating in a visit to the college's own 88.8 FM radio station. The event was organized by the Department of Electronics and Communication Engineering and aimed to provide students with a hands-on understanding of broadcasting technology and its evolution

Visit to 88.8 FM Radio Station:

The highlight of the day was a guided visit to NSRIT College's own 88.8 FM radio station. Students were given a tour of the station's facilities, including the recording studio, control room, and broadcasting tower. Dr. K.Rajasekhar ,Associate Professor , explained the workings of the radio station, from content creation to signal transmission.



National Space Day Celebrations

The Department of ECE&IETE Student Chapter, NSRIT conducted a “ National Space Day ” on 23rd August 2024 from 1.00 PM to 4:30 PM in the Seminar Hall. The National Space Day was celebrated with great enthusiasm and participation on 23rd August 2024 at Seminar Hall, Block-1, NSRIT The event aimed to inspire curiosity and passion for space exploration among students and to encourage them to pursue careers in the space industry. The celebration was marked by a series of engaging activities, including a technical quiz, essay writing competition, and a poster presentation, all revolving around the theme of space and space exploration.

SESSION ACTIVITIES:



Essay Writing Competition



Technical Quiz



Poster Presentation



Prize Distribution

Faculty Capacity Building

FDP on "Bridging Research and Pedagogy in Electronics and Communication Engineering"

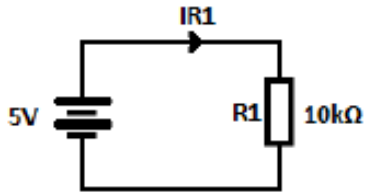
The Department of Electronics and Communication, NSRIT Visakhapatnam has organized a three-day Faculty Development Program (FDP) on the topic "Bridging Research and Pedagogy in Electronics and Communication Engineering" from June 20, 2024 to June 22, 2024. This FDP was in association with IETE, India. By bridging the gap between research and pedagogy, the program aims to enhance educational quality, foster innovative teaching strategies, and encourage interdisciplinary collaboration. This approach prepares students to tackle real-world challenges while promoting continuous learning and adaptation among faculty members for holistic development.

The event started with the Saraswati Vandana and the warm welcome from the FDP coordinator Dr. K. Rajasekhar introduced Dr. B. Siva Prasad, Convener and Head of the Department of ECE, NSRIT Visakhapatnam. Dr. B. Siva Prasad welcome all the participants and introduced the chief guest Dr. Sambhu Prasad, Principal, NSRIT Visakhapatnam. He addressed the participants and motivated the Department of ECE for the event. The FDP program was attended by the 20 participants at Seminar Hall.



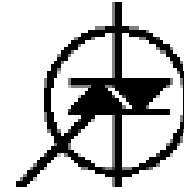
Quiz

1. What is the value of I_{R1} (current through $R1$)?



- 1) $I_{R1} = 0.1\text{mA}$
- 2) $I_{R1} = 5\text{mA}$
- 3) $I_{R1} = 0.5\text{mA}$
- 4) $I_{R1} = 1\text{mA}$

2. What type of transistor is this one?



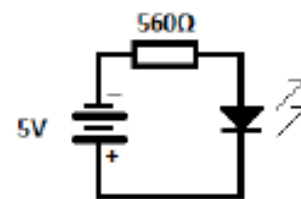
- 1) Triac
- 2) Thyristor
- 3) NPN
- 4) PNP



3. A bipolar transistor usually has:

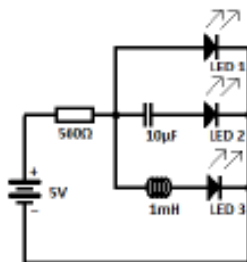
- 1) 2 Terminals
- 2) 3 Terminals
- 3) 4 Terminals
- 4) 5 Terminals

4. Will the LED turn on?



- 1) YES
- 2) NO

5. Which LED will turn ON?



- 1) only LED 1
- 2) only LED 2
- 3) LED 1 and LED 3
- 4) LED 1 and LED 2

Engineering Made Simple!

Understand the basics of the components

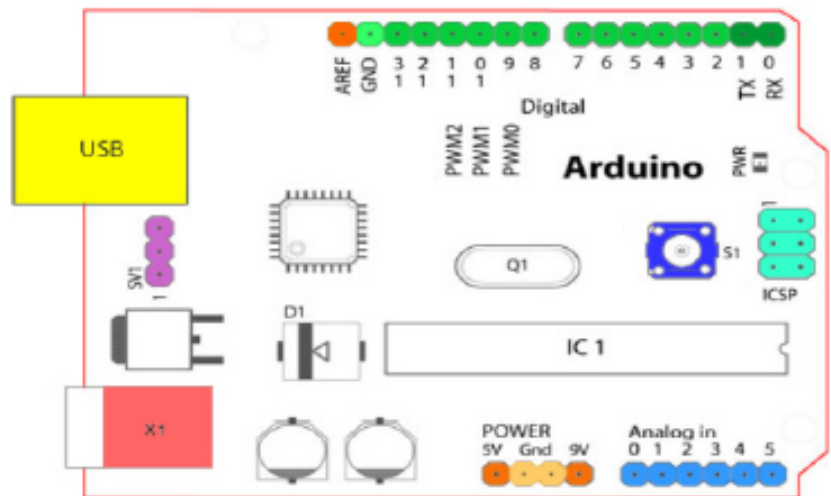
V.KRISHNA ECE A III year (2022-24)

ARDUINO UNO

Arduino is an opensource hardware and software company, project and user community that designs and manufactures single-board microcontrollers and microcontroller kits for building digital devices and interactive objects that can sense and control objects in the physical and digital world



ARDUINO UNO R3



Starting clockwise from the top center:

- Analog Reference pin (orange)
- Digital Ground (light green)
- Digital Pins 2-13 (green)
- Digital Pins 0-1/Serial In/Out -TX/RX (dark green) - These pins cannot be used for digital i/o (digital - Read and digitalWrite) if you are also using serial communication (e.g. Serial.begin).
- Reset Button - S1 (dark blue)
- In-circuit Serial Programmer (bluegreen)
- Analog In Pins 0-5 (light blue)
- Power and Ground Pins (power: orange, grounds: light orange)
- External Power Supply In (9-12VDC) - X1 (pink)
- Toggles External Power and USB Power (place jumper on two pins closest to desired supply) - SV1 (purple)
- USB (used for uploading sketches to the board and for serial communication between the board and the computer; can be used to power the board) (yellow)



ADVANTAGES:

- Inexpensive
- Cross-platform
- Simple, clear programming environment
- Open source and extensible software

Alumni Experience

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

Ms. Jaya sri ,Program Analyst & Tilcho labs (2019-2023 Batch . ECE)

One of the most interesting stages in life that gives you an opportunity to explore is the 'college phase.' Life at college is the time when the teenage years end and we all dive deep into the ocean of new beginnings and possibilities. This golden period better equips you for all the challenges you'll face in life and creates a strong foundation of knowledge.

My experience at NSRIT has taught me one fundamental thing - life is unpredictable. It might be good, it might be bad, it might be weird, and it might not interest you, but expect anything to happen. For example, you might have a wonderful job this moment, and be fired the very next moment. College life prepares you for all of this. It is a perfect blend of joy and hardships. You meet different people, you interact with them, you learn about their cultures and grow as a person. You will understand how to talk to different people, how to judge their behavior, thus helping you with important life skills. You learn to sit through a boring lecture; you try to cope up with the surprisingly strenuous syllabus, and you have the opportunity to learn from some great research minds. Academia, as they say, never lets you go free. People might try to motivate you by telling that you need to study only through your school years and chill during the college life, but that isn't true.



Another life lesson you will remember - the learning never ends. You find campus groups or student groups where you can explore your co-curricular skills along with many other students like you. So, one fine day when you see pictures from the college of you and your friends having a good time, you'll definitely land up smiling silently. That's the beauty of college life. It stays with you long after you've climbed those ladders of success and forgotten the name of that cute crush you used to drool over.



Sri N. Satyanarayana Raju
President



Dr. S. Sambhu Prasad
Principal



Dr. P. S. Raju
Chief Management Officer



Dr. B. Siva Prasad
HOD ECE

EDITORIAL COMMITTEE

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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)