

# DEPARTMENT OF ECE

## NEWSLETTER

JULY - AUGUST 2024

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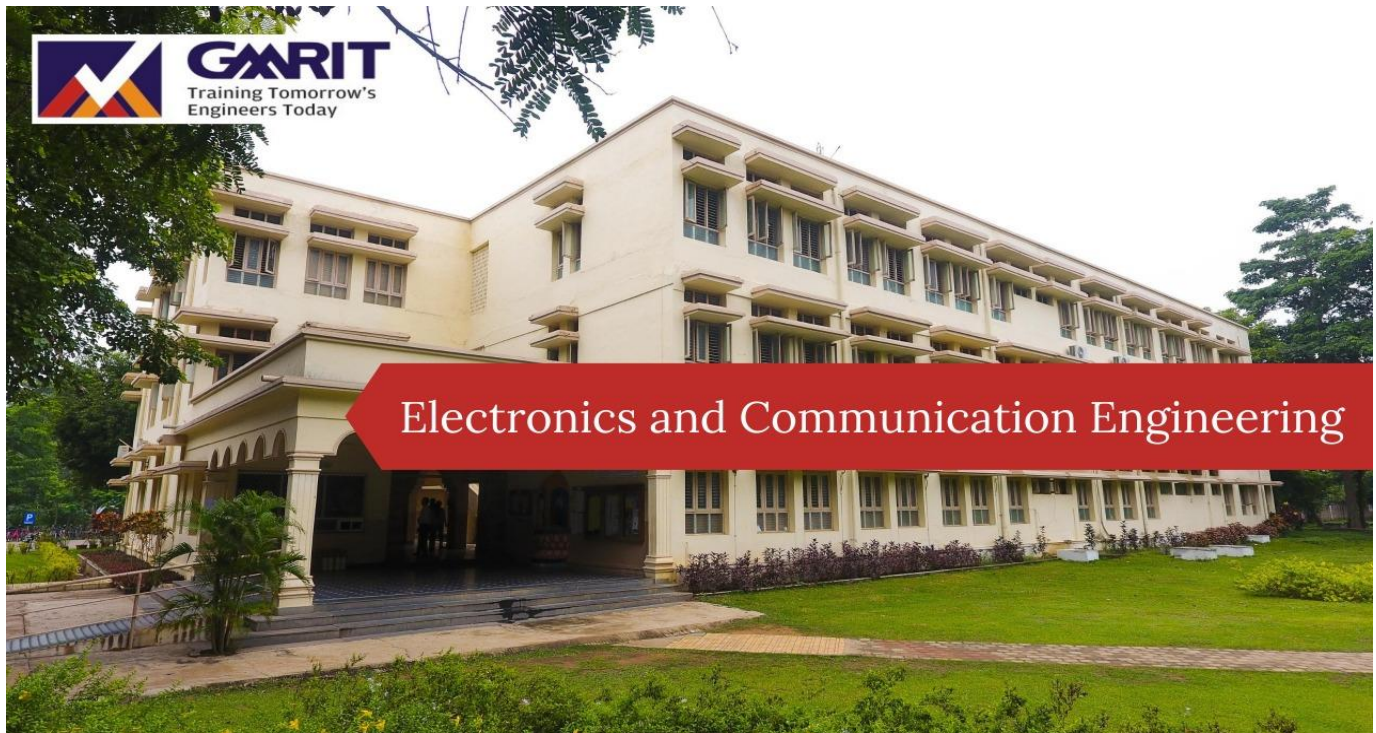
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# 1. ELECTRONICS AND COMMUNICATION ENGINEERING DEPARTMENT

## 1.1. OVERVIEW

Electronics & Communication Engineering Department provides students with a solid scientific/technical background and research capabilities in the design, development and manufacture of electronic devices and systems used in a wide spectrum of applications. The applications spans from household appliances to sophisticated satellite communication, from electronic ignition to neural networks and signal processing chips. The Department integrates academic discipline with project-based engineering applications, classroom learning and theory with real world experiences. Annual intake of this Department is 180 students.



## 1.2. VISION

To be a nationally preferred department of learning for students and teachers alike, with dual commitment to research and serving students in an atmosphere of innovation and critical thinking.



### 1.3. MISSION

To provide high-quality education in Electronics & Communication Engineering to prepare the graduates for a rewarding career in Electronics & Communication Engineering and related industries, in tune with evolving needs of the industry.

To prepare the students to become thinking professionals and good citizens who would apply their knowledge critically and innovatively to solve professional and social problems.

### 1.4. PROGRAMME EDUCATIONAL OBJECTIVES (PEO'S)

1. Embrace technical and professional skills with the spirit of learning, critical thinking while acquiring the fundamentals in science and technology. (PEO1)
2. Contemplate real life problems, design and develop novel products that are technically viable, economically feasible and socially acceptable. (PEO2)
3. Encompass ethical values, exhibit soft skills in management & teamwork acquiring leadership qualities. (PEO3)

### 1.5. PROGRAMME OUTCOMES (PO'S)

At the end of the Programme, a graduate will be able to

- PO 1. Apply the knowledge of basic sciences and fundamental engineering concepts in solving engineering problems.
- PO 2. Identify and define engineering problems, conduct experiments and investigate to analyze and interpret data to arrive at substantial conclusions.
- PO 3. Propose an appropriate solution for engineering problems complying with functional constraints such as economic, environmental, societal, ethical, safety and sustainability.
- PO 4. Perform investigations, design and conduct experiments, analyze and interpret the results to provide valid conclusions.
- PO 5. Select/develop and apply appropriate techniques and IT tools for the design & analysis of the systems.
- PO 6. Give reasoning and assess societal, health, legal and cultural issues with competency in professional engineering practice.
- PO 7. Demonstrate professional skills and contextual reasoning to assess environmental/societal issues for sustainable development.
- PO 8. Demonstrate Knowledge of professional and ethical practices.
- PO 9. Function effectively as an individual, and as a member or leader in diverse teams, and in multi-disciplinary situations.

PO 10. Communicate effectively among engineering community, being able to comprehend and write effectively reports, presentation and give / receive clear instructions.

PO 11. Demonstrate and apply engineering & management principles in their own / team projects in multidisciplinary environment.

PO 12. Recognize the need for, and have the ability to engage in independent and lifelong learning.

PSO 1. Apply the knowledge of technological evolutions, model / characterize devices and design the integrated circuits to build analog and digital systems. (Program Specific)

PSO 2. Understand and apply the fundamentals of communication and signal processing to develop systems wrapped with industry standard protocols and standards. (Program Specific)

## **1.6. FACILITIES & INFRASTRUCTURE**

- ❖ Analog & Digital Communication Lab
- ❖ Integrated Circuit & Pulse Digital Circuits Lab
- ❖ Electronic Device Circuits Lab
- ❖ Microwave & Optical Communication Lab
- ❖ Microprocessor & Micro Controller Lab
- ❖ ECAD Lab
- ❖ Basic Electronics Lab
- ❖ Digital Signal Processing Lab

## **1.7. MAJOR COURSES**

- ❖ Digital Signal Processing
- ❖ Radar Engineering
- ❖ Computer Organisation
- ❖ Electronic Devices and Circuits
- ❖ Analog and Digital Circuits

- ❖ Microwaves
- ❖ VLSI
- ❖ Satellite Communication
- ❖ Cellular Mobile Communication
- ❖ Optical Communication
- ❖ Management Science
- ❖ Pulse & Digital Circuits and Integrated Circuits
- ❖ Electromagnetic Waves
- ❖ Antennas
- ❖ Microprocessors
- ❖ Digital Image Processing
- ❖ Embedded Systems Design and IoT
- ❖ RTL coding Techniques
- ❖ ASIC verification using system Verilog
- ❖ Electronics for Agriculture

## 2.STUDENT ACTIVITIES

### PROFESSIONAL SOCIETY ACTIVITIES

#### ISTE Events:

- **WORD VAULT:** conducted on 27/08/2024
- This event is all about 3 rounds. In the 1<sup>st</sup> round few words will be given which participants should find in the jumbled lettered box. In the second-round questions was displayed according to the order which they have to find in the jumbled letter box. In the final round the questions were displayed in which they have fill the empty boxes according to the instructions. The event was held at CSE Block CSE SEMINAR HALL, with a total no of participants day wise given below.
- **Day:** Event was conducted by 141 participants.
- The event was interactive and lively. The event was conducted successfully.



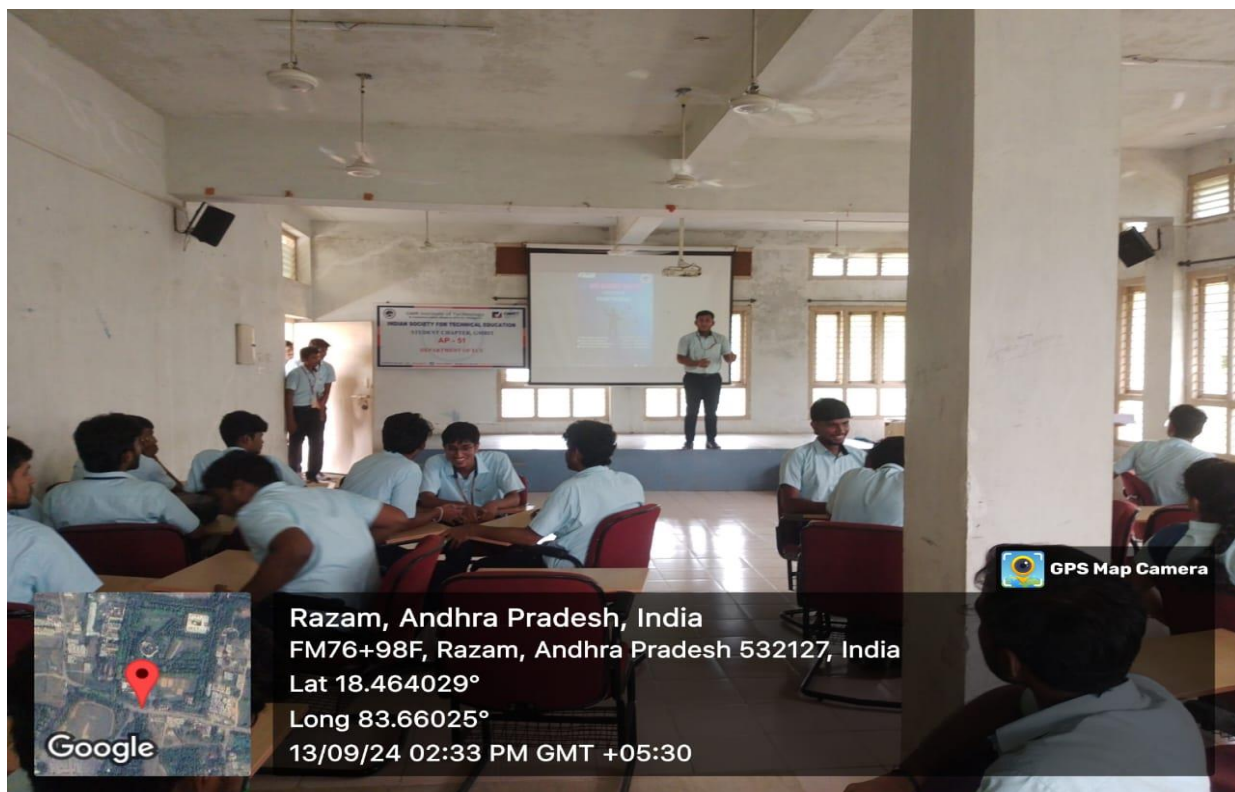




- **FUNTRONIX:** “FUNTRONIX”. An event which is completely based on digital electronics. The first round is focuses on Boolean expression their have to optimize the logic circuit design. The Final round on Network Marathon. The event tests team ability to performing the designing of logical circuits. It requires strong diplomacy and comprehensive knowledge to claim victory. The event CONDUCTED on **13/09/2024** at **ECE SEMINAR HALL**







*Department-level **organized events, patents, workshops / expert talk with short event report and photos.***

**PROFESSIONAL CHAPTER ACTIVITIES:**

**ISTE Events**

- 2-4 photos of each event
- Description of Events

**IETE Events**

- 2-4 photos of each event
- Description of Events

**IE(I) Events:**

- 2-4 photos of each event
- Description of Events

**STUDENT ACHIEVEMENTS:**

- 1 photo of each Achievement
- Description of Achievement
- Student achievements in EC/CC/Sports events, including details etc..
- Placement Details

### 3. FACULTY PUBLICATIONS & ACHIEVEMENTS

Academic achievements, including **Book chapters, Text Books, and Online courses done by the faculty members. Projects / Funds received from Govt / Other Agencies**

- Journal / Conference Publication details
- Book chapters, Text Books details
- Projects / Funds received from Govt / Other Agencies
- MoU Signed by your department
- Alumni Interaction / Alumni Contribution / Alumni Achievement details
- Higher Education (Students joined) details.

### 4. SEMINARS AND WORKSHOPS ATTENDED

- Seminar and Workshop details