DEPARTMENT OF ECE

NEWSLETTER

MARCH-APRIL 2024

Faculty Members:

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Professor & HOD

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Assistant Professor

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ECE-C

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ECE-C

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ECE-B

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22341A0460
ECE-A

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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.
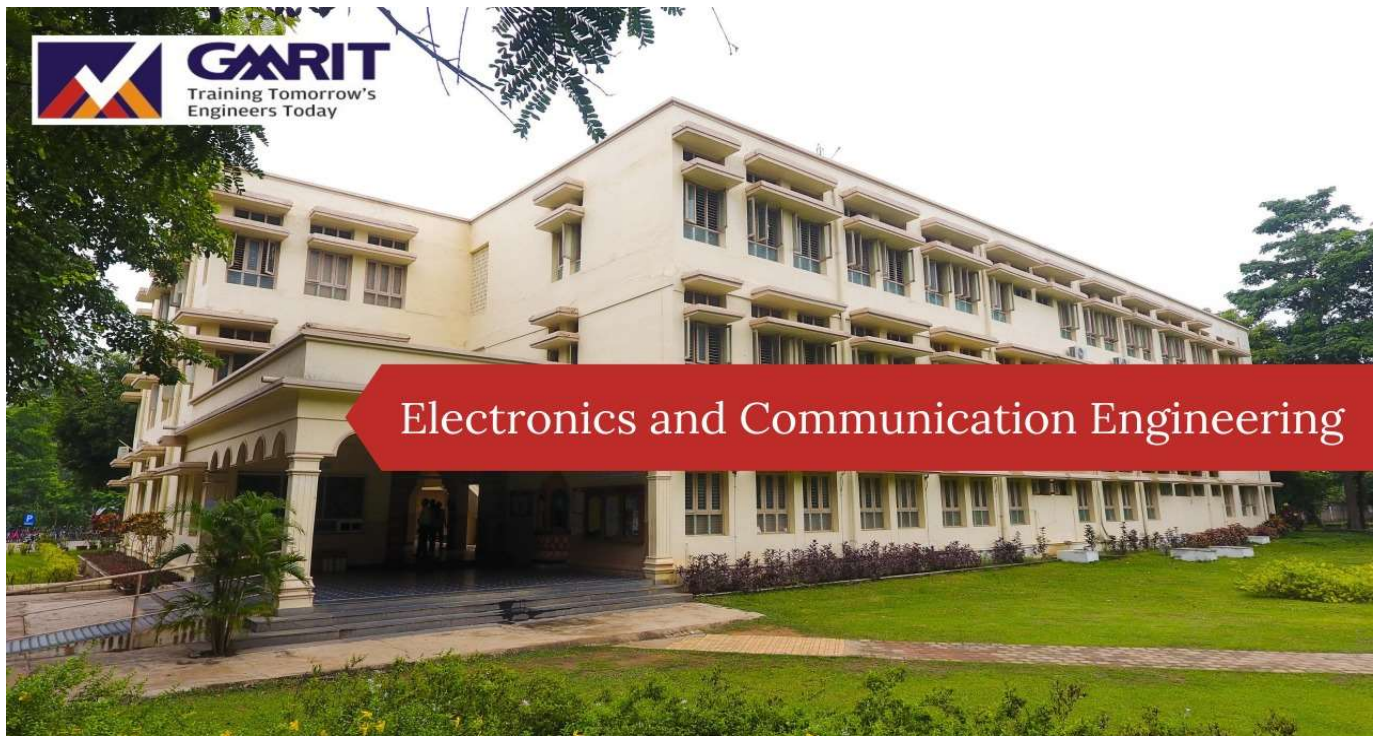
1.2. VISION

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 clears 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

PROFESSIONAL SOCIETY ACTIVITIES

ISTE EVENTS:

- ➢ **MOVIE MANIA:**conducted on 30/04/2024.
- ➢ The "Fun with Circuits" event is designed to test participants' knowledge and skills on movies , actors and actress.
- ➢ **Venue:** ECE Seminar Hall from 3:00pm to 5:00pm.
- ➢ **Participants**: Event was conducted by 50participants.
- ➢ The event was interactive and lively. The event was conducted successfully.

- ➢ **BREAK THE PUZZLE:** conducted on23/04/2024.
- ➢ The "Fun with Circuits" event is designed to test participants' knowledge and skills onbasic electronic circuits by solving the puzzles.
- ➢ **Venue:** ECE Seminar Hall from 2:00pm to 3:00pm.
- ➢ **Participants**: Event was conducted by 55participants.
- ➢ The event was interactive and lively. The event was conducted successfully.

IETE EVENTS:

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- ➢ **WATT'S UP :**conducted on 30/04/2024.
- ➢ The "**WATT'S UP** " event is designed to test mental ability and technical skills of the students.
- ➢ **Venue:** ECE block 6-F-1, 3:00pm to 5:00pm.
- ➢ **Participants**: Event was conducted by 50 participants.
- ➢ The event was interactive and lively. The event was conducted successfully.
- ➢ Winners of this event is :
  - o 22341A04D2: P.Madhulatha
  - o 22341A04D5: P. Vasavi
  - o 22341A0402: A. Divya

- ➢ Runners of this event:

  - o 22341A04F7: S.Madhu
  - o 22341A04F0: R.Chaitanya
  - o 22341A04G4: S.Sarath

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- ➤ QUIZ BUSTERS: conducted on 19/03/2024.
- ➤ The "QUIZ BUSTERS"event is designed to test mental ability and technical skills of the students.
- ➤ **Venue:** ECE Seminar Hall, 3:00pm to 5:00pm.
- ➤ **Participants**: Event was conducted by 41participants.
- ➤ The event was interactive and lively. The event was conducted successfully.
- ➤ Winners of this event is :
  - o 22341A04F3: S. Bhargavi
  - o 22341A04I4: V. Renuka

- ➤ Runners of this event:

 - o 22341A04D2: P.Madhulatha
  - o 22341A04D9:P.Dhatri

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- ➢ LINE FOLLOWER ROBOT(WORKSHOP): conducted on 28/03/2024.
- ➢ The "LINE FOLLOWER ROBOT(WORKSHOP)" :this event is designed to design line follower robot.
- ➢ **Venue:** ECE MP LAB, 3:00pm to 5:00pm.
- ➢ **Participants**: Event was conducted by 33participants.
- ➢ The event was interactive and lively. The event was conducted successfully.

IEI EVENTS:

- ➢ TECH TODYAY(workshop): conducted on 04/03/2024.
- ➢ The "TECH TODAY"event is designed to gain mental ability and technical skills of the students.
- ➢ **Venue:** ECE Seminar Hall, 3:00pm to 4:00pm.
- ➢ **Participants**: Event was conducted by 28 participants.
- ➢ The event was interactive and lively. The event was conducted successfully.
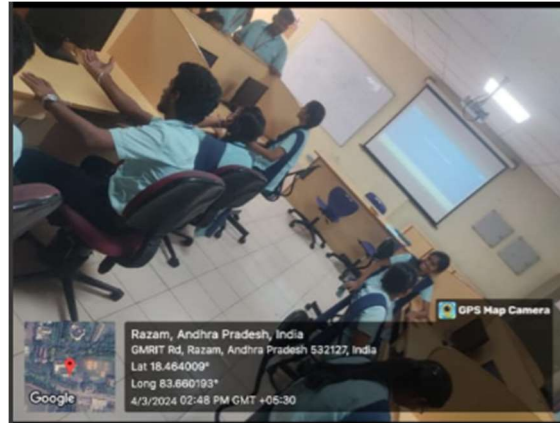
- ➢ CINEPHILE CHALLENGE: conducted on16/04/2024.
- ➢ The "TECH TODAY"event is designed to gain knowledge on cinemas.
- ➢ **Venue:** ECE Seminar Hall, 2:00pm to 3:00pm.
- ➢ **Participants**: Event was conducted by 72 participants.
- ➢ The event was interactive and lively. The event was conducted successfully.\

3. FACULTY PUBLICATIONS & ACHIEVEMENTS

JOURNAL PAPERS

- Dr . B.Anil Kumar ,” Aspect-oriented extraction and sentiment analysis using optimized hybrid deep learning approaches”.

CONFERENCE PAPER

- Dr. A. Sudhakar has presented a paper "Design of Slotted Microstrip Antenna using Regression based Approach "with Name of the conference as 2023 9th International Conference on Signal Processing and Communication (ICSC) which was held at NOIDA, India on 23-12-2023.
- Dr. T. Anil Kumar has presented a paper "Design and Comparative Study on Planar ELC Resonators for εr Analysis" with name of conference as 3rd IEEE Wireless, Antenna and Microwave Symposium (WAMS 2024) which was organized by Raghu Engineering College, Visakhapatnam, India on 01-03-2024
- Dr. B. Anil Babu has presented a paper "An AlGaAs Diode-based Reconfigurable Intelligent Surface for mmWave Communication" with name of conference as 2023 IEEE Microwaves, Antennas, and Propagation Conference (MAPCON) which was organized by IEEE MAPCON on 13-12-2023.

ONLINE COURSES

- Dr. A. Siva Sangari successfully completed 8 weeks course of "Data Science for Engineers" and received passing grades for a Professional Certificate in NPTEL by IIT MADRAS where ending date is 24-03-2024.
- Dr. T. Geetamma successfully completed 6 weeks course of "Data Science for Engineers" and received passing grades for a Professional Certificate in NPTEL by IIT MADRAS India, where ending date is 15-03-2024.
- Dr.J. Venkata suman successfully completed 6 weeks course of "wireless communications for everybody" and received passing grades for a Professional Certificate in COURSERA by Yonsei University, where ending date is 16-04-2024.
- Sri p. kalyanchakravarthy successfully completed 6 weeks course of "wireless communications for everybody" and received passing grades for a Professional Certificate in COURSERA by Yonsei University, where ending date is 16-04-2024.
- Dr. D . Suresh successfully completed 8 weeks course of " Programming, Data Structures and Algorithms using Python" and received passing grades for a Professional Certificate in NPTEL by IIT MADRAS, where ending date is 24-03-2024.
- Sri P.V Murali krishna successfully completed 8 weeks course of " Cmos digital vlsi design" and received passing grades for a Professional Certificate in, NPTEL by IIT ROORKE where ending date is 23-03-2024.
- Dr. Ch. Babji Prasad successfully completed 8 weeks course of "Data Science for Engineers" and received passing grades for a Professional Certificate in NPTEL by IIT MADRAS where ending date is 10-04-2024.
- Dr. N . Chandra Sekhar successfully completed 4 weeks course of "Effective Teaching in Pratice" and received passing grades for a Professional Certificate in NPTEL by IIT MADRAS where ending date is 16-05-2024.

PATENTS

- In Pursuance Of And Subject To The Provision Of Registered Designs Act 1949, The Design Of Which A Representation Or Specimen Is Attached, Had Been Registered As Of The Date Of Registration Shown Above In The Name Of Dr. J. Suman In Respect Of The Application Of Such Design To: AI and ML Based Cyber Security Device. Date of publication /grant:14-02-2024.

- In Pursuance Of And Subject To The Provision Of Registered Designs Act 1949, The Design Of Which A Representation Or Specimen Is Attached, Had Been Registered As Of The Date Of Registration Shown Above In The Name Of Dr. G.B.S.R Naidu In Respect Of The Application Of Such Design To: A deep learning approach for implementing iot in hybrid electric vehicles for energy management. Date of publication /grant:29-03-2024.

- In Pursuance Of And Subject To The Provision Of Registered Designs Act 1949, The Design Of Which A Representation Or Specimen Is Attached, Had Been Registered As Of The Date Of Registration Shown Above In The Name Of Sri P.V. Murali Krishna In Respect Of The Application Of Such Design To: semiconductor manufacturing equipment. Date of publication /grant: 03-01-2024.

- In Pursuance Of And Subject To The Provision Of Registered Designs Act 1949, The Design Of Which A Representation Or Specimen Is Attached, Had Been Registered As Of The Date Of Registration Shown Above In The Name Of Sri B.M.S Sreenivasa rao In Respect Of The Application Of Such Design To: AI based Heart Disease Prediction Device. Date of publication /grant: 25-04-2024

FACULTY DEVELOPMENT PROGRAMME

- This is to certify that Dr. TVS. Divakar actively participated in "1 DAY Workshop ,ATTENDED AS A GUEST FACULTY TO DELIVER A TOPIC ON ELECTRONIC DEVICES IN GCSR COLLEGE on 21.03.2023
- This is to certify that Dr. T. Anil Kumar has actively participated in "1 DAY Workshop about IEEE WIRELESS, ANTENNA AND MICROWAVE SYMPOSIUM (WAMS-2024) PRE-CONFERENCE WORKSHOP organized by RAGHU ENGINEERING COLLEGE (A), VISAKHAPATNAM, AP, INDIA on 28-02-2024.

- Dr. B. Anil Babu has attended 1 day workshop on "WAMS PRECONFERENCE WORKSHOP " on 28-02-2023, Organized by Raghu Engineering college.

- Dr. A. Siva Sangari has attended workshop on "Data Science for Engineers" from 02-01-2024 to 17-03-2024. Organized by NPTEL in Collaboration with ExcelR.

- Dr. T. Geetamma has attended Workshop on "Data Science for Engineers " from 22-01-2004 to 15-03-2024. Organized by organized by NPTEL-AICTE, Funded by MoE, Govt. of India.
- Dr. D Suresh has attended one week workshop on "Programming, Data Structures and Algorithms using Python" from 01-03-2024 to 06-03-2024, Organized by NPTEL.
- Dr. Ch. Babji Prasad has attended workshop on "Data Science for Engineers "from 15-01-2024 to 22-03-2024 Organized by IIT, Madras.
- Dr. Ch. Babji Prasad has attended workshop on "Recent advancement on Microwave and mmWave Communication (RAMMC-2024) "from Recent advancement on Microwave and mmWave Communication (RAMMC-2024) " from 08-04-12 to 12-04-2024 ,Organized by Haldia Institute of Technology, Haldia, India
- Dr. N. Chandrasekhar has attended workshop on "Effective Teaching in practice " from 07-02-2024
to 24-03-2024 ,Organized by IIT Madras, NPTEL
- Dr. T. Anil Kumar has attended workshop on "PLANAR PRINTED ANTENNA DESIGN USING ANSYS HFSS " from 19-04-2024 to 20-04-2024,Organized by "STANLEY COLLEGE OF ENGINEERING & TECHNOLOGY FOR WOMEN (AUTONOMOUS) HYDERABAD, INDIA"