

### MARRI LAXMAN REDDY INSTITUTE OF TECHNOLOGY AND MANAGEMENT

(AN AUTONOMOUS INSTITUTION) (Approved by AICTE, New Delhi & Affiliated to JNTUH, Hyderabad) Accredited by NBA and NAAC with 'A' Grade & Recognized Under Section2(f) & 12(B)of the UGC act,1956

# Department of Electronics and communication engineering

BROCHURE-2021

ELECTRONICS & COMMUNICATION ENGINEERING

## electronics and communication engineering

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The Electronics and Communication Engineering is one of the core engineering majors and it represents a rapidly developing field, including wireless communications, micro- and nano-electronics. The Department of Electronics and Communication Engineering was established in the year 2009 with the intake of 60 students and rapidly growing. The intake number has been increased to 216 by 2012. In 2012, the department started M.Tech program with specialization in embedded systems with an intake of 24. The department has got various international and national certifications which enhances the rank of the department. The department has got accreditation from NAAC with 'A' grade in 2015 and NBA in 2016.

The department has produced more than 600 graduates till now. The main objective of this course is to provide students with very strong insight of electronics and communication areas as well as related aspects. The department has very well trained faculties with 06 Professors, 14 Associate Professors and 30 Assistant Professors. The faculties are qualified and proficient with a wide range of experience in academics and industry. The faculty members of our department have published a large number of research papers in referred journals like IEEE, Elsevier etc.

It is one of the most significant branches of engineering which has always been in demand. The department is known for its efficacy and holds a strong reputation. Various workshops, guest lectures and FDP programs were organized by the department time to time for enhancing the knowledge and quality of students as well as the faculties. The department aims primarily at excellence not only in theoretical but also in experimental research in Embedded Systems, Signal Processing, VLSI Design, Communications, RF & Microwave, Antennas, etc. vision and Mission of the Department

### Our Vision

Imparting quality technical education through research, innovation and team work for a lasting technology development in the area of Electronics and Communication Engineering.

### **Our Mission**

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To develop a strong centre of excellence for education and research with excellent infrastructure and well qualified faculties to instill in them a passion for knowledge.

### To achieve the Mission the department will

1.Establish a unique learning environment to enable the students to face the challenges of the Electronics and Communication Engineering field.

2.Promote the establishment of centre of excellence in niche technology areas to nurture the spirit of innovation and creativity among faculty and students.

3.Provide ethical and value based education by promoting activities addressing the societal needs.

4.Enable students to develop skills to solve complex technological problems of current times and also provide a framework for promoting collaborative and multidisciplinary activities.

### <u>PEO's & PO's</u>

### PROGRAMME EDUCATIONAL OBJECTIVES

PEO 1: Have successful careers in Industry.

**PEO 2:** Show excellence in higher studies/ Research.

PEO 3: Show good competency towards Entrepreneurship.

### PROGRAM OUTCOMES

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- a An ability to apply knowledge of Science, Mathematics, Engineering & Computing fundamentals for the solutions of Complex Engineering problems
- b An ability to identify, formulates, research literature and analyze complex engineering problems using first principles of mathematics and engineering sciences.
- c An ability to design solutions to complex process or program to meet desired needs.
- d Ability to use research-based knowledge and research methods including design of experiments to provide valid conclusions.
- e An ability to use appropriate techniques, skills and tools necessary for computing practice.
- f Ability to apply reasoning informed by the contextual knowledge to assess social issues, consequences & responsibilities relevant to the professional engineering practice.
- g Ability to understand the impact of engineering solutions in a global, economic, environmental, and societal context with sustainability.
- h An understanding of professional, ethical, Social issues and responsibilities.
- i An ability to function as an individual, and as a member or leader in diverse teams and in multidisciplinary settings.
- j An ability to communicate effectively on complex engineering activities within the engineering community.
- k Ability to demonstrate and understanding of the engineering and management principles as a member and leader in a team.
- Ability to engage in independent and lifelong learning in the context of technological change.

### **PROGRAM SPECIFIC OUTCOMES**

- PSO1 Analyze and design analog & digital circuits or systems for a given specification and function.
- PSO2 Implement functional blocks of hardware-software co-designs for signal processing and communication applications.

# ECE Labs

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- 1. Analog Communications Lab
- 2. Analog Electronics Lab
- 3. Basic Simulation Lab
- 4. Digital Signal Processing Lab
- 5. Electronic Devices and Circuits lab
- 6. IC Applications and HDL Simulation Lab
- 7. Microprocessor and Microcontroller Lab
- 8. Microwave and Digital communications Lab
- 9. Pulse and Digital circuits lab
- **10.Robotics** Lab

# Faculty Achievements

S.No		Platform	Domain	Authors	Guide
1	GPS BASED MINE DETECTION ROBOT USING ARM MICROCONTROLL ER	C	EMBEDDED SYSTEMS	127Y1A04 H3 M.AMARES HWAR 127Y1A04 E3 K.BHAVYA SREE 127Y1A04 G9 V.NIKHIL SAI KRISHNA 127Y1A04 C4 A.SAI PAVAN KUMAR	B.N SRINIVAS
2	AVR BASED SMART GAS MEASURING DEVICE WITH ALERT SYSTEM	C	EMBEDDED SYSTEMS	127Y1A04 G5 V.SURYA TEJA REDDY 127Y1A04 E0 K.SRI SAHITHI 127Y1A04 C8 B.VASU DEV 127Y1A04 F5 PATEL RAHUL	I.ADUM BABU

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"The problem in this business isn't to keep people from stealing your ideas; it's making them steal your ideas!"

- Howard Aiken



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