



VIGNAN'S INSTITUTE OF MANAGEMENT AND TECHNOLOGY FOR WOMEN

TECHINNOVATION

NEWS LETTER

JUL - SEP, 2022

DEPT. OF ECE

VOLUME NO.: 25

ECE Department

Electronics and Communication engineering is a discipline which uses the scientific knowledge of the behaviour and effects of electrons to develop components, devices, systems, or equipment that uses electricity as part of its driving force. This engineering field encompasses many subfields like signal processing, semiconductor chip design, telecommunication, data communication networks, satellite and radar link setup, embedded systems, robotics and many more.

Electronics and Communication engineering department transforms our day-to-day lives through a multitude of innovative technologies and products. The ECE department is intended to expose students to the unlimited opportunities for innovation in this exciting field, and to the methodologies and tools used by ECE engineers for the exploration and design of new technologies and products.

The applications of Electronics & Communication engineering is an endless list with a lot of scope in each and every subfield. It is a versatile branch that opens path for core electronics & communication jobs. Besides the numerous jobs in core field, the IT sector also welcomes an ECE engineer with open arms.

As compared to other branches, there are more interdisciplinary specializations in higher studies for ECE students like Embedded Systems, VLSI, Wireless communication, Signal Processing. Therefore, ECE students have a wider choice.

Department of Electronics and Communication Engineering was started since the inception of Vignan's Institute of Management and Technology for Women during 2008 with an initial intake of 90. The strength was enhanced to 120 during 2010. The Department had added Post graduate programme in VLSI during the year 2011 and Embedded Systems during 2014 with an intake of 18 each.

The Department has state-of-art laboratories equipped with advanced and well-maintained equipment, continuously updated application software packages, more than adequate computing systems with 24x7, 40 MBPS internet facility. All faculties are having a minimum teaching experience of 4 years. Seminars, Guest Lectures, Workshops, and Technical Symposia are conducted in the department to keep faculty and students updated with the latest developments in various technologies.

The Department is accredited by the National Board of Accreditation (NBA) has been accredited by National Board of Accreditation (NBA) successively two times i.e. in 2019 and 2022, which is valid up to 2025.

ECE students of the institution are well placed in different companies with different packages.



Department Vision

To transform the students into technologically competent professionals, with abilities to address the societal challenges of the time through innovative technical practices in electronics & communication engineering.

Department Mission

- M1: To foster inquisitive-driven advanced knowledge building among students for reinforcing the domain knowledge, develop capabilities, skills and solve complex engineering problems.
- M2: To prepare industry-ready graduates for global Electronics as well as communication-based engineering companies by conducting training programs, workshops and industry visits.
- M3: To build entrepreneurship and leadership qualities, research aptitude among students for the contribution of economic and technological development in cutting edge technologies in the national and as well as in the global arena.

Program Educational Objectives:

- PEO1: To develop the student's ability on technical concepts to design, simulate, and synthesize various electronic and communication circuits & systems for their research advancements.
- PEO2: To impart analytical skills and to prepare the students to excel in applying state-of-the-art hardware and software tools to solve complex engineering problems for R&D, Industry, and societal requirements.
- PEO3: To prepare the students to work in teams, take independent decisions, and integrate engineering issues for a successful career in a multi-disciplinary environment.
- PEO4: To promote entrepreneurship among the students to become successful entrepreneurs with professional ethics.

Program Specific Outcomes:

A graduate of the Electronics and Communication Engineering Program will be able to

- PSO1: **Professional Skills Ability:** Identify, design electronics & communication circuits and conduct experiments with electronics & communication systems, analyze and interpret data, formulate and solve electronics & communication engineering problems.
- PSO2: **Industrial Skills Ability:** Design digital and analog systems, algorithms, fire ware, modern engineering tools, software, etc. as per needs and specifications and work in laboratory and multidisciplinary tasks.
- PSO3: **Ethical and Social Responsibility:** Communicate effectively in both verbal and written form, will have knowledge of professional and ethical responsibilities and will show an understanding of the impact of engineering solutions on the society, and also will be aware of contemporary issues.

EDITORIAL BOARD

- Mr.P.Harikrishna, HOD, ECE.
- Mrs. D. Shirisha, Assistant Professor, ECE.
- Mrs. V. Suzan Shalini, Assistant Professor, BS&H.
- D. Meghana IV-I, ECE (Student)
- B. Vedhakshari III-I, ECE (Student)
- Nareddy Pavani III-I, ECE (Student)
- M. Raja Suhasini II-I, ECE (Student)



HOD'S MESSAGE

Mr. P. Harikrishna,
Associate Professor &
HEAD OF THE DEPARTMENT,
DEPARTMENT OF ELECTRONICS
AND COMMUNICATION
ENGINEERING.

It gives me immense pleasure to present the Jul- Sep, 2022 issue of our department newsletter, TECHINNOVATION. This newsletter reflects the dedication and achievements of our students and faculty, celebrating academic excellence, innovation, and creativity. I congratulate everyone involved in maintaining the high standards of the department and wish our students continued success in their professional journey.

Faculty article

Navigating the Future of Connectivity in ECE

By, Dr. Vijaya kumar , Associate Professor

Navigating the Future of Connectivity in ECE

Welcome to the cutting-edge world of Electronics and Communication Engineering (ECE), a dynamic field that serves as the backbone of modern technology. Our department is committed to bridging the gap between theory and real-world application, equipping students with the skills needed to innovate in an ever-evolving landscape.

The scope for ECE professionals is vast, spanning telecommunications, VLSI design, signal processing, and emerging areas like AI, IoT, and quantum computing. Our dedicated faculty and state-of-the-art laboratories provide a conducive environment for hands-on learning and research. We aim to mould young professionals into innovative, ethical engineers ready to meet industry demands and contribute to societal development. The future is connected, and our graduates are prepared to lead the charge.

FACULTY PUBLICATIONS:

S. No	Author	Title of book	Date	ISSN
1	Dr.T.Pullaiah	Undecimated wavelet transforming using MATLAB simulation	Aug-22	Patent

FACULTY PATENTS

Sl No	Author	Title	Date	ISSN No	Journal
1	Mrs.G.Indira Priya darshini	Validation of CMOS Reversible Logic Gates at 16nm Regime	july-sept)	2348-6848	International Journal of Research (IJR)

FDP WORKSHOPS ATTENDED

Sl No	Name of the faculty	Title	Date of event	Mode of attending
1	Mrs.M.Pravallika	"ava Programming & DSA Course	22/07/2022	ONLINE

Student article

The Digital Frontier: An ECE Student's Perspective

By Harika Reddy

The Digital Frontier: An ECE Student's Perspective

From the transistors that power our phones to the algorithms driving self-flying drones, ECE is the invisible force shaping our modern world. It's more than just circuits and code; it's about solving humanity's greatest challenges.

In ECE, we learn to bridge the gap between pure hardware and intelligent software. We're designing the next generation of smart grids, developing high-speed communication systems (like 6G), and engineering embedded systems for autonomous vehicles. Our curriculum transforms abstract concepts into tangible innovations. It teaches us not just how things work, but how to make them work better.

Being an ECE student means constantly learning, adapting, and pushing boundaries. We are the architects of the future, building the technology that will define tomorrow's society. The potential is limitless, and we are ready to power the future.

ACHIEVEMENTS

Outstanding Recognition Award

Vignan Institute of Management and Technology for Women was honored with the Outstanding Recognition Award by the Rotary Club, Hyderabad. The award acknowledges the institution's commendable medical service rendered to Kondapur Village and its remarkable contribution to community welfare. This recognition reflects the college's continued commitment to social responsibility and service beyond academics.



Recognition Award

Vignan's Institute of Management and Technology for Women received the Recognition Award from NTR Trust Blood Centre, Hyderabad, for its valuable support and continuous contribution towards blood donation and healthcare initiatives across Telangana and Andhra Pradesh. This honor highlights the institution's commitment to community welfare and its partnership in promoting the motto — “Safe Blood for All.”



OTHER EVENT BY DEPARTMENT

As part of the festive celebrations, the Department of Computer Science and Engineering organized a traditional Bommala Koluvu display on campus. The event beautifully showcased the essence of Indian culture and creativity through an artistic arrangement of clay and wooden dolls depicting mythological scenes, village life, and cultural themes. Students actively participated in setting up the vibrant display, decorated with colorful drapes, garlands, and kites, symbolizing unity and devotion. The celebration not only reflected cultural heritage but also promoted teamwork and aesthetic expression among students.



Seminar

The Department of Electronics and Communication Engineering organized an engaging guest lecture aimed at enhancing students' technical knowledge and professional skills. The session provided valuable insights into current industry trends and emerging technologies. Students actively interacted with the speaker, gaining a deeper understanding of real-world applications of classroom concepts. The event served as an excellent platform for bridging the gap between academia and industry.



Program Outcomes (Adapted from NBA)

Engineering Graduates will be able to:

PO1: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2: Problem Analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3: Design/Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4: Conduct Investigations of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5: Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6: The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7: Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11: Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12: Life-long Learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

CAMPUS RECRUITMENT

SUCCESS STORIES...



VIGNAN'S
INSTITUTE OF MANAGEMENT AND
TECHNOLOGY FOR WOMEN

Congratulations!

15

**STUDENTS
HAS BEEN
SELECTED FOR**


T. JAYANTI
SRIPRAKASH ECE


A. SRILATHA
SRIPRAKASH ECE


J. VENKIDHRA
SRIPRAKASH ECE


N. BHARATHA SATHYAN
SRIPRAKASH ECE


RUPAKSHI
SRIPRAKASH ECE


P. VASANTHINI
SRIPRAKASH ECE


P. PRIYADARSHINI
SRIPRAKASH ECE


A. RAJESH
SRIPRAKASH ECE


N. ANKITHA
SRIPRAKASH ECE


M. RITHIKA
SRIPRAKASH ECE


P. BHARATHA
SRIPRAKASH ECE


S. ADARSHINI
SRIPRAKASH ECE


S. ANITHA
SRIPRAKASH ECE


N. DEEPTHI
SRIPRAKASH ECE


S. BHARATHA
SRIPRAKASH ECE



TCS
TATA
CONSULTANCY
SERVICES

WITH PACKAGE:
3.6
LAKHS PER ANNUM