

Department of Electronics and Communication Engineering

National Institute of Technology Warangal

Department Profile 2026 | Head of Department: Prof. J. Ravikumar

ECE

ECE at a Glance

The Department of Electronics and Communication Engineering at NIT Warangal stands as one of India's premier ECE departments — combining academic breadth, modern laboratories, strong placement outcomes, funded research, and a vibrant innovation ecosystem. Below is an executive snapshot of the department's key metrics as of 2026.

6 — **Academic Programs**
UG (2), PG (3), and PhD

39 — **Faculty Members**
Experienced faculty across Professors, Associates, and Assistants

32 — **Ongoing Projects**
Externally sponsored research projects active in 2025–26

28 — **Completed Projects**
Successfully delivered sponsored research engagements

547 — **Journal Publications**
Peer-reviewed journal articles across five years

720 — **Conference Papers**
Presentations at national and international conferences

33 — **Patents**
Indian and foreign patents filed, published, and granted

7 — **Faculty Startups**
Technology ventures founded by ECE faculty members

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History • Organization • Labs • Infrastructure

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Projects • Publications • Patents

05 **Culture & External Connect**
Alumni • Events • MOUs & Collaborations

CHAPTER I

Overview of ECE

History
Five decades of academic and research excellence

Organization
Programs, commitees, and academic groups

Program Portfolio
UG, PG, and doctoral programs

Accreditation & Review
NBA. ARR, Periodic syllabus revision

Centres & Labs
Teaching, Research, and CoE facilities

Infrastructure
Classrooms, seminar halls, and faculty rooms

CHAPTER I – OVERVIEW

Evolution of ECE Programs

The Department of ECE at NIT Warangal has grown steadily over six decades — from its founding B.Tech program in Electronics and Communization to a comprehensive suite of advanced specializations. Each milestone reflects the department's response to emerging technology needs, from VLSI and communication systems to embedded intelligence and AI-oriented curricula.

LATEST

2024
M.Tech Electronics & Instrumentation / EMLS program commenced (2024)

1966

1971
B.Tech ECE program established — the flagship undergraduate degree

2001
M.Tech VLSI System Design launched to meet growing semiconductor industry demand

2005
M.Tech Advanced Communication Systems

2023
B.Tech ECE (VLSIDT) — the newest UG specialization targeting VLSI design and technology

CHAPTER I — OVERVIEW

Program Portfolio

The department's academic portfolio spans undergraduate, postgraduate, and doctoral levels — providing a complete educational pathway from foundational engineering to advanced research. Each program is designed to equip graduates with specialized competencies aligned with national and global technology sectors.

Undergraduate

- B.Tech ECE — core Electronics and Communication Engineering
- B.Tech ECE (VLSIDT) — VLSI Design and Technology specialization (est. 2023)

Postgraduate

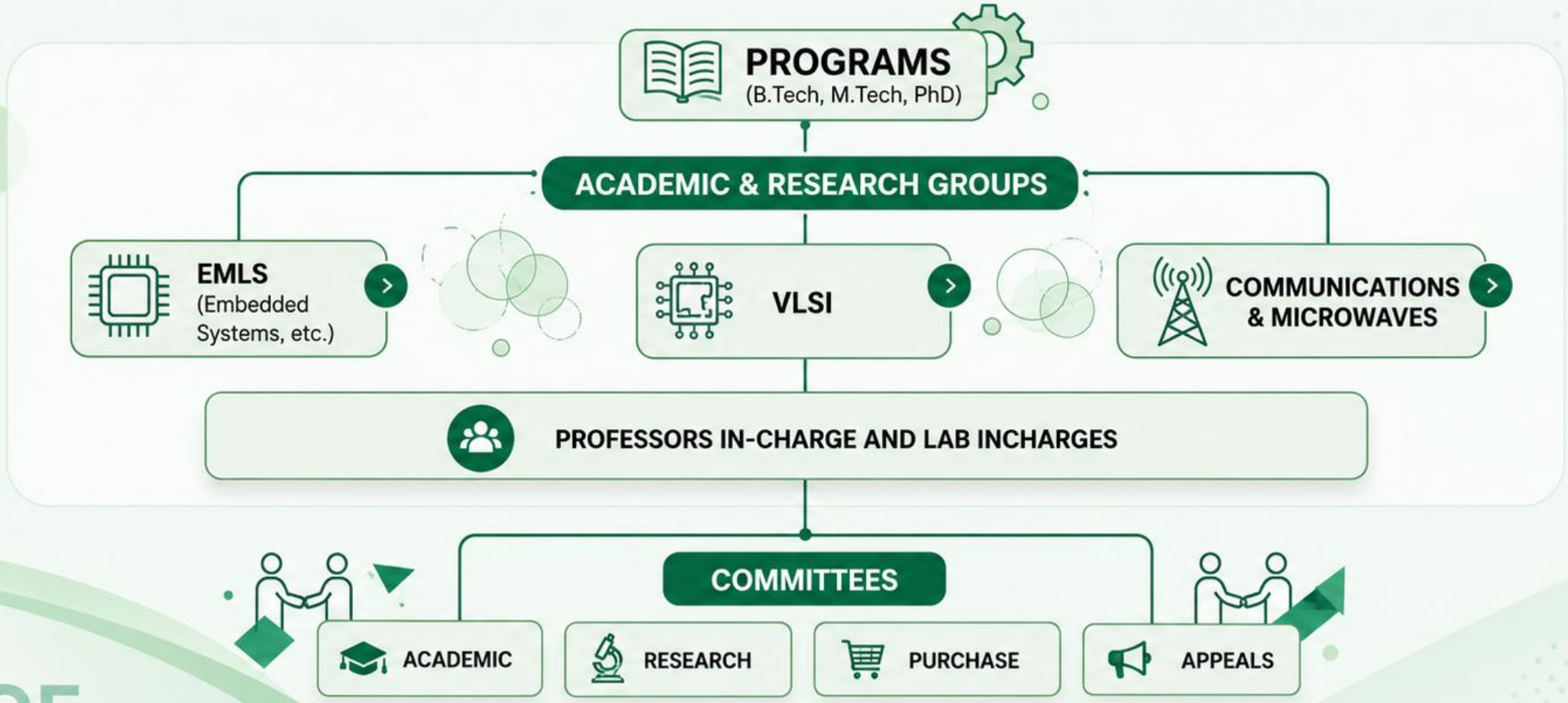
- M.Tech Embedded & Machine Learning Systems (EMLS)
- M.Tech VLSI System Design
- M.Tech Advanced Communication Systems (ACS)

Research (PhD)

- PhD in ECE — research groups in EMLS, VLSI, and Communications & Microwaves
- Interdisciplinary doctoral projects spanning AI, RF, nano-devices, and biomedical systems

Department Organization

The department operates through a structured governance framework that integrates academic programs, research groups, standing committees, and faculty coordination roles. This structure ensures effective academic delivery, research oversight, and resource management across all programs and laboratories.



CHAPTER I — OVERVIEW

Accreditation & Academic Review Status

All programs undergo periodic NBA accreditation and external academic reviews to ensure continuous quality improvement. Syllabus revisions are carried out in alignment with industry trends and AICTE/NBA guidelines, with the most recent UG/PG revision completed in AY 2024–25.

Program	Commenced	Recent Accreditation	External Review	Syllabus Revision
B.Tech ECE	1971	2022–2028	2026	AY 2024–25
B.Tech ECE (VLSIDT)	2023	New Program	2026	AY 2024–25
M.Tech EMLS	1966	2014–2019*	2026	AY 2024–25
M.Tech VLSI	2001	2015–2020	2026	AY 2024–25
M.Tech ACS	2005	2016–2021	2026	AY 2024–25

CHAPTER I — OVERVIEW

Research & Academic Groups

Three interdisciplinary academic groups form the technical backbone of the department — supporting teaching, laboratory work, and externally funded research. Each group has distinct focus areas spanning frontier domains of electronics and communication engineering.

Embedded & Machine Learning Systems (EMLS)

- AI/ML for Speech & Image Processing
- Biomedical Signal Processing
- FPGA, GPU Accelerator Design
- Printed/Flexible Electronics

VLSI

- Digital, Analog/Mixed Signal & RF Design
- Novel Devices & Beyond CMOS
- AI & Neuromorphic / Quantum Computing
- Systems – IoT & FPGA
- MEMS / NEMS

Communications & Microwaves

- 5G/6G & Cognitive Radio
- MIMO Antennas & RF Circuits
- RIS & Smart Radio Environments
- Optical & THz Systems
- Quantum Communication

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Centres & Laboratory Ecosystem

The department's laboratory ecosystem includes teaching laboratories for UG/PG coursework, newly established advanced research labs, dedicated Centres of Excellence, and specialized research facilities, together providing infrastructure for hands-on training, design, and frontier research.

1 CENTRES OF EXCELLENCE

- DRONES AND AUTONOMOUS VEHICLES
- AI AND ML APPLICATIONS



2 TEACHING LABORATORIES

- BASIC ELECTRONICS
- EDA
- DSP
- COMMUNICATION



3 NEW LABORATORIES

- ML ALGORITHMS
- GPU
- SoC
- RF
- NANO DEVICES
- 5G USE CASE



4 RESEARCH FACILITIES

- RF/MMW
- HEALTHCARE
- IoT
- NANO AND EMBEDDED SYSTEMS



CHAPTER I — OVERVIEW

Teaching Laboratories

The department's thirteen teaching laboratories provide structured, hands-on training for both UG and PG students across the full spectrum of electronics and communication engineering. Labs support core coursework as well as project-based learning and design experimentation.

- Basic Electronics
- Electronic Devices & Circuits (EDC)
- Integrated Circuits
- Electronic Design Automation (EDA)
- Microprocessors
- Digital Signal Processing (DSP)
- Electronics Instrumentation
- Communication Systems
- Data Networks
- Microwave & Optical Communication
- Digital IC Design
- Analog/Mixed Signal Design
- Wireless Communication

CHAPTER I — OVERVIEW

AI/ML, GPU & Hardware Acceleration Labs

The department has invested in state-of-the-art AI/ML and hardware acceleration infrastructure to support emerging research and coursework in machine learning, GPU-based computing, and FPGA-based acceleration. Key hardware platforms include Jetson Nano boards, Sipeed Maixduino AI boards, Zed Board, and Pynq ZU, alongside EDA/Vivado workstations.

Courses Supported

- **EC16009** — Machine Learning Lab
- **EC16002** — GPU Programming Lab
- **EC16004** — Hardware Accelerators for ML Lab









CHAPTER I — OVERVIEW

Nano, Embedded & Healthcare Research Facilities

These specialized facilities enable interdisciplinary research at the intersection of materials science, embedded AI, and healthcare technology. Equipment includes spin coating machines, electrospinning setups, 3D printers, EEG systems, accelerometer sensors, and glass water tanks for fluid-based experimentation — supporting thin-film fabrication, sensor development, and healthcare IoT projects.

Key Facilities & Capabilities

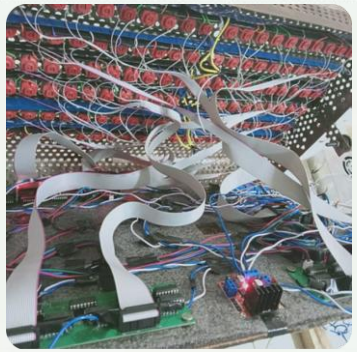
Advanced Research Equipment
Spin coating machines, electrospinning setups, 3D printers, EEG systems, and more.

Interdisciplinary Focus
Materials science, embedded AI, healthcare technology, and IoT applications.

Application Areas
Thin-film fabrication, sensor development, healthcare monitoring, and fluid-based studies.

Impact
Enabling innovation for sustainable healthcare and smart technology solutions.











RF, Microwave, 5G/6G & Wireless Facilities

The department's RF and microwave research infrastructure is among the most advanced in NIT-tier institutions. The dedicated anechoic chamber, vector network analyzers, spectrum analyzers, SDR-based testbeds, and RIS/mmWave platforms enable cutting-edge research in 5G/6G communications, phased arrays, MIMO antenna design, and terahertz systems.

RF & Microwave Laboratory



Anechoic Chamber



RF & Microwave Testbed Area



SDR & Communication Testbeds



MIMO & Phased Array Platform



5G/6G & mmWave Research Setup



Advanced Infrastructure
State-of-the-art RF, microwave & wireless research facilities

Cutting-edge Research
Enabling innovation in 5G/6G, MIMO, RIS & mmWave systems

Versatile Platforms
SDR testbeds, phased arrays & measurement systems

Industry & Academia Connect
Supporting collaborative projects and next-gen communication

Future Ready
Driving research for next-generation wireless technologies

CHAPTER I — OVERVIEW

Infrastructure Snapshot

The department's physical infrastructure is purpose-built to support academic delivery across all programs. Dedicated UG and PG classrooms ensure appropriate learning environments for undergraduate cohorts and smaller postgraduate batches, while the seminar hall supports guest lectures, symposia, and departmental reviews.

11
Total Classrooms
Across UG and PG teaching spaces

8
UG Classrooms
Each with a seating capacity of 65 students

3
PG Classrooms
Capacity of 30–50 students per room

1
Seminar Hall
100-seat capacity for lectures, reviews, and events

33
Faculty Rooms
Individual offices supporting research and student mentoring

CHAPTER II

Students

Admitted

Current enrollment across all programs

Placement Statistics

UG and PG employment outcomes

Activities

Technical workshops, orientation, and clubs

Achievements

Competitions, publications, and innovations

Outreach

Industry and institutional visits

CHAPTER II — STUDENTS

Student Strength AY 2025–26

The department currently enrolls students across five distinct programs at the UG, PG, and doctoral levels. The combined on-rolls strength reflects a vibrant and diverse student community engaged in coursework, research, and industry-oriented projects.

706

B.Tech ECE + VLSIDT

110 + 51 admitted; on-rolls: (134+52)+(132+51)+(129+47)

64

M.Tech EMLS

26 + 10 admitted; on-rolls: 28

62

M.Tech VLSI

26 + 10 admitted; on-rolls: 27

69

M.Tech ACS

26 + 10 admitted; on-rolls: 33

221

PhD

21 admitted; on-rolls: 200

B.Tech Placement Performance

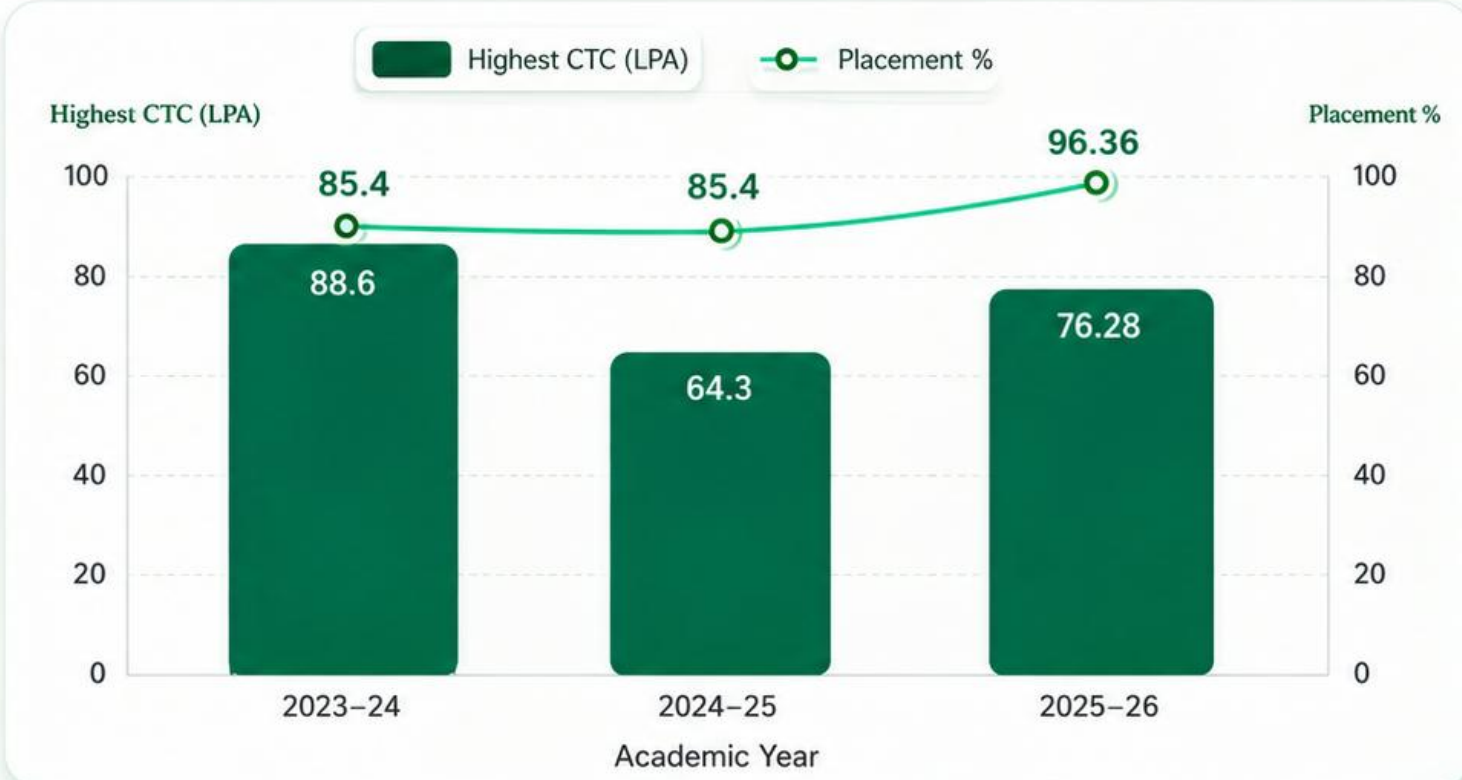
B.Tech ECE placement outcomes have shown a strong upward trajectory over the past three years, with the placement percentage rising from **85.38%** in 2023–24 to **96.36%** in 2025–26. The highest CTC offered in 2025–26 stands at **76.28 LPA**, reflecting the strong demand from top-tier technology companies for ECE graduates.

96.36%
Placement Rate 2025–26

76.28
Highest CTC (LPA)

22.55
Average CTC (LPA)

5
Lowest CTC (LPA)



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M.Tech Placement Performance

The three postgraduate ECE specializations demonstrate strong industry relevance. M.Tech VLSI System Design records the highest placement percentage at 46.15%, while both VLSI System Design and EMLS achieve the top highest CTC of 42 LPA. M.Tech ACS records a placement percentage of 24.24% with a highest CTC of 27.71 LPA.

1. M.Tech ACS

Placement Percentage	24.24%
Highest CTC (LPA)	27.71

2. M.Tech VLSI System Design

Placement Percentage	46.15%
Highest CTC (LPA)	42

3. M.Tech EMLS

Placement Percentage	37.93%
Highest CTC (LPA)	42

Top placement %: VLSI System Design (46.15%) | **Top highest CTC: VLSI System Design and EMLS (42 LPA)**

Recruiter Landscape

ECE graduates are recruited across a diverse range of sectors — from core electronics and semiconductor firms to IT, analytics, R&D, and product engineering companies. The breadth of recruiters reflects the versatility and technical depth of ECE education at NIT Warangal, with students finding roles in design, development, research, and systems engineering.

Core Electronics & Semiconductor

VLSI design, chip fabrication, and embedded systems companies including leading global semiconductor firms

Communication & RF

Telecom equipment manufacturers, wireless systems companies, and 5G infrastructure providers

IT & Software

Technology services, software development, and system integration companies

Analytics & R&D

Data analytics, AI research, product engineering, and innovation-focused organizations

Student Activities: Orientation & Community

The department fosters a vibrant student community through a range of orientation and community-building activities. The annual "Know Your Branch" session helps incoming students understand program structures and career paths, while the Electronics and Communication Engineering Society (ECES) inaugural ceremony formally welcomes new student members into the department's technical community.











CHAPTER II — STUDENTS

Student Technical Activities

Students actively participate in a wide range of technical workshops, inter-collegiate competitions, and industry-interface events. Highlights include hands-on workshops in SystemVerilog and LTspice, robotics and drone demonstrations, and prestigious engagements with national organizations such as ISRO — providing real-world exposure beyond the classroom curriculum.











CHAPTER II — STUDENTS

Student Outreach

Structured industry and institutional visits form an important component of student development, bridging theoretical learning with real-world exposure. In AY 2025–26, batches visited two prestigious organizations — providing direct insight into signal engineering, telecommunications, and national remote sensing operations.

III Year ECE

Indian Railways Institute of Signal Engineering and Telecommunications, Secunderabad

Visit Date: **25 February 2026**

IV Year ECE

National Remote Sensing Centre (NRSC), Jeedimetla, Telangana

Visit Date: **09 February 2026**







Student Achievements

ECE students have demonstrated exceptional capabilities in academic publishing, competitive hackathons, national robotics competitions, and innovation challenges. These achievements underscore the department's success in nurturing technically proficient, research-oriented, and entrepreneurially minded graduates.

Publication — IEEE Transactions on Electron Devices

A.S.V. Sathvik and Rajesh authored a research paper published in IEEE TED — one of the most prestigious journals in electron device research.

MIT iQuHack — Quantum Hackathon

Team Alok Ratheesh secured 7th place in the Superquantum problem statement at the prestigious MIT iQuHack international quantum computing hackathon.

e-Yantra Robotics (IIT Bombay) — Stage 2, Top 100

G Anish Reddy, L Prabhas, and M L Sruthika advanced to Stage 2 of the national e-Yantra Robotics competition, placing in the top 100 teams across India.

Innovation & Internship Contributions

Student Srinath contributed to the E-Jignysa Project Expo, Smart India Hackathon (internal round), and drone-based event projects. Multiple students completed NITW summer internships.

CHAPTER III

Faculty

Strength

37 faculty across all ranks

Recognition

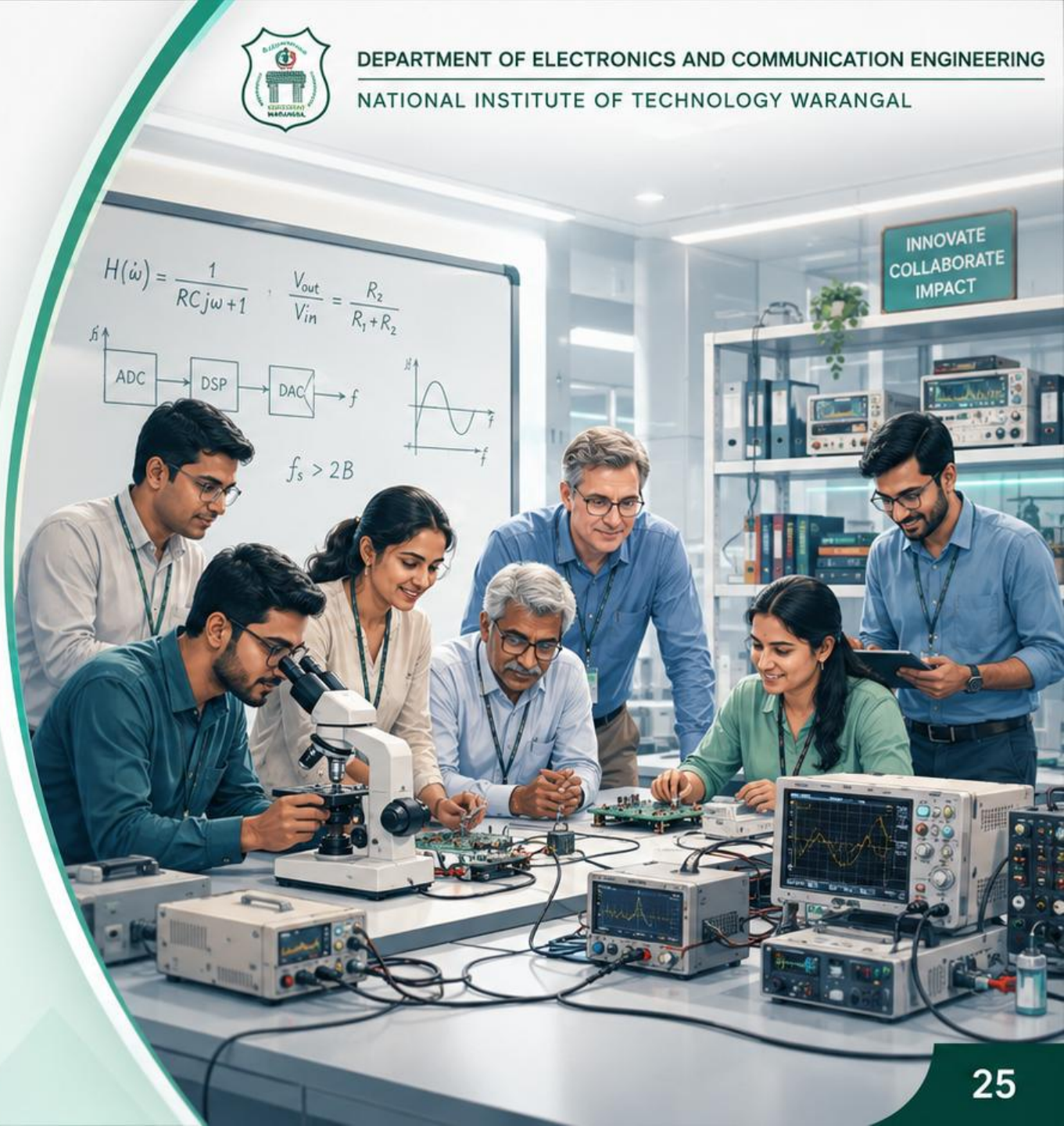
Top 2% citations, IEEE roles, awards

Achievements

Year-wise highlights 2020–2026

Startups

7 faculty-led technology ventures



CHAPTER III — FACULTY

Faculty Strength

The department comprises **37** faculty members across four academic ranks, reflecting a healthy balance between senior leadership, mid-career expertise, and early-career innovation. This composition supports both rigorous undergraduate teaching and high-quality doctoral research supervision.

3 — **Professor (HAG)**
Senior most faculty at the highest academic grade

9 — **Professor**
Experienced full professors leading research groups

13 — **Associate Professor**
Mid-career faculty with strong research and teaching contributions

12 — **Assistant Professor**
Early-career faculty bringing fresh research perspectives

37 — **Total Faculty**
Combined department strength across all ranks

CHAPTER III — FACULTY

Faculty Recognition at a Glance

ECE faculty members at NIT Warangal have earned national and international recognition across multiple dimensions — from citation impact and editorial leadership to IEEE senior membership and institutional awards. These distinctions reflect the department's commitment to research excellence, professional engagement, and teaching quality.



Top 2% Cited Researchers

Multiple faculty recognized in Stanford University's global top 2% cited researchers list, reflecting the international impact of ECE research output



IEEE Senior Members

Several faculty hold IEEE Senior Member grade — the highest honor conferred by member grade, recognizing significant performance and contributions to the profession



Editorial & Journal Roles

Faculty serve as editors and associate editors in leading IEEE journals and international publications, shaping the direction of scholarly discourse



Teaching, Research Awards & Grants

Recipients of teaching excellence, best paper, best researcher, and research promotion awards, alongside DST travel grants and funded project grants

CHAPTER III — FACULTY

Faculty Achievements: Selected Highlights

The following timeline captures significant faculty recognitions from 2020 to 2026, reflecting a consistent and growing record of excellence in teaching, research, professional service, and innovation.

2020–22

IISc Best Paper Award; Seshadri grant; Best Engineering Faculty; Best Research, Presentation, and Poster awards; INUP hackathon recognition

2023

Teaching Excellence Award; IETE Fellowship; Guest Editor role; DST travel grant; Top 2% Cited Researcher (Stanford list)

2024

Top 2% Cited Researcher (renewed); Best Researcher Award at NIT Warangal

2025

Bharat S. Rawal Research Promotion Award; IEEE Senior Memberships; IEEE Associate Editor roles; Best Paper Award; AICTE distinction

2026

Exemplary Editor recognition, IEEE Communications Letters — the latest in a growing list of professional distinctions

Faculty Startups

Seven faculty-led startups have been launched between 2023 and 2026, spanning domains from blockchain and AI to healthcare, smart textiles, and agri-tech. These ventures demonstrate the department's active role in translating academic research into real-world innovation and entrepreneurship.

FLEMINPRO Pvt. Ltd.	Founded 2023	—	Prof. Prakash Kodali
Hemal Tech Solutions	Founded 2023	—	Prof. Ravi Kumar Jatoth
VERIBBLOCK Pvt. Ltd.	Founded 2024	—	Prof. Anjaneyulu
VARUN Solutions	Founded 2025	—	Prof. B. Lakshmi
Med Agro AI Pvt. Ltd.	Founded 2025	—	Prof. M. Farukh Hashmi
Speed Bus	Founded 2025	—	Prof. P. Sreehari Rao
Madhu Smart Technologies Pvt. Ltd.	Founded 2026	—	Prof. K. L. V. Sai Prakash Sakuru

CHAPTER IV

Scientific Research

Sponsored Projects

32 ongoing, 28 completed

Major Projects

6G, AI, healthcare, RF, nanoelectronics

Publications

547 journals, 720 conferences, 12,059 citations

Patents

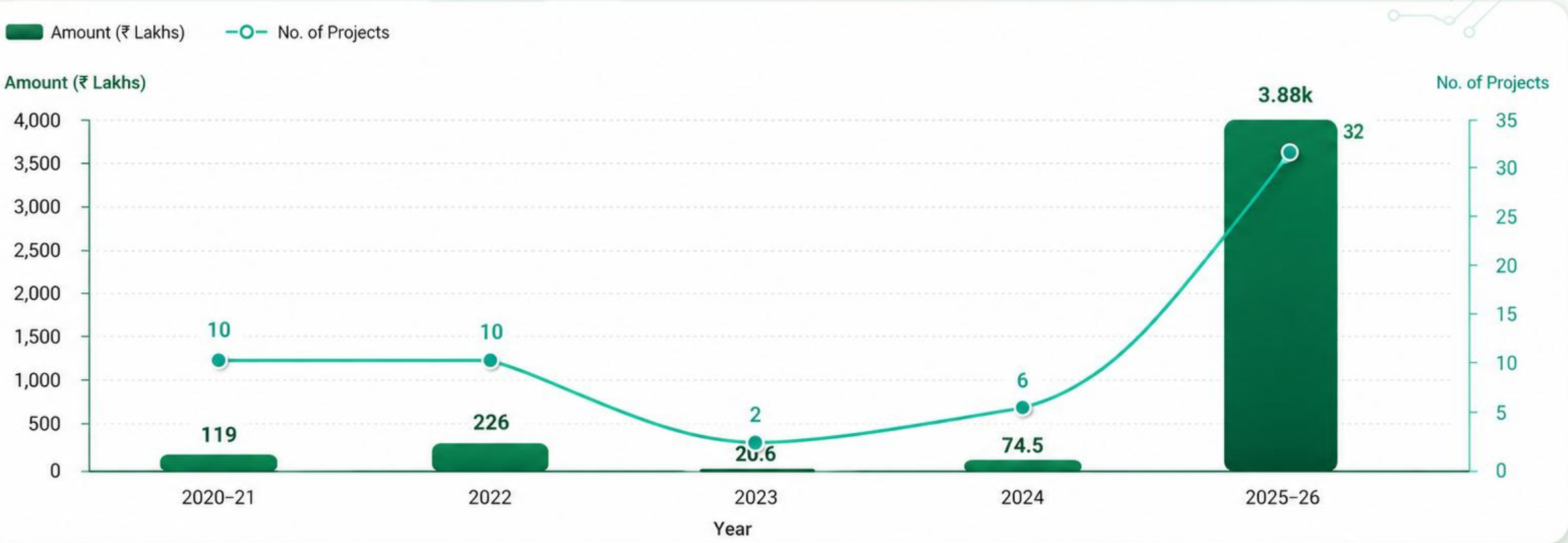
25 Indian Published + 1 foreign granted; 7 Indian granted



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Research Funding Dashboard

Research funding has grown dramatically in 2025–26, with the department securing **₹3,884.3 lakhs** in sponsored project amounts, representing more than a **16-fold increase** over 2024, reflecting growing visibility and competitiveness in securing major national and industry-funded grants.



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Major Funded Projects 2025–26

The department's active project portfolio in 2025–26 spans eight high-impact technology domains — from next-generation 6G/THz communications and AI-based surveillance to healthcare diagnostics, nanoelectronics, and reconfigurable intelligent surface (RIS) antenna systems. These projects are funded by agencies including DST, DRDO, ISRO, and leading industry partners.



01 — 6G Analog Front End

210–255 GHz analog front-end design for 6G wireless applications



02 — AI Surveillance

AI-based smart surveillance and automated monitoring for smart city applications



03 — Healthcare AI

ML models for tuberculosis detection and cardiovascular disease prediction



04 — 2D RRAM & Nanoelectronics

2D-material RRAM and advanced nanoelectronic device research



05 — TARANG THz Systems

Terahertz wireless communication systems for ultra-high-speed data transfer



06 — Radar / Satellite Telemetry

Signal processing for telemetry and radar — defense and space applications



07 — RIS / Antenna

RIS-integrated antenna design and X-band phased array development



08 — Sensors & IoT

Smart IoT systems, edge intelligence, and sensor network projects

CHAPTER IV — RESEARCH

Research Publications Snapshot

The department's cumulative research output demonstrates a strong and sustained publication culture. With 547 journal articles, 720 conference papers, 32 book chapters, 5 books, 33 patents, and over 12,059 total citations, ECE at NIT Warangal is among the most research-active departments in the NIT system.

547
Journal Publications
Peer-reviewed articles in indexed journals

720
Conference Papers
Presentations at national and international conferences

32
Book Chapters
Contributed chapters in edited volumes

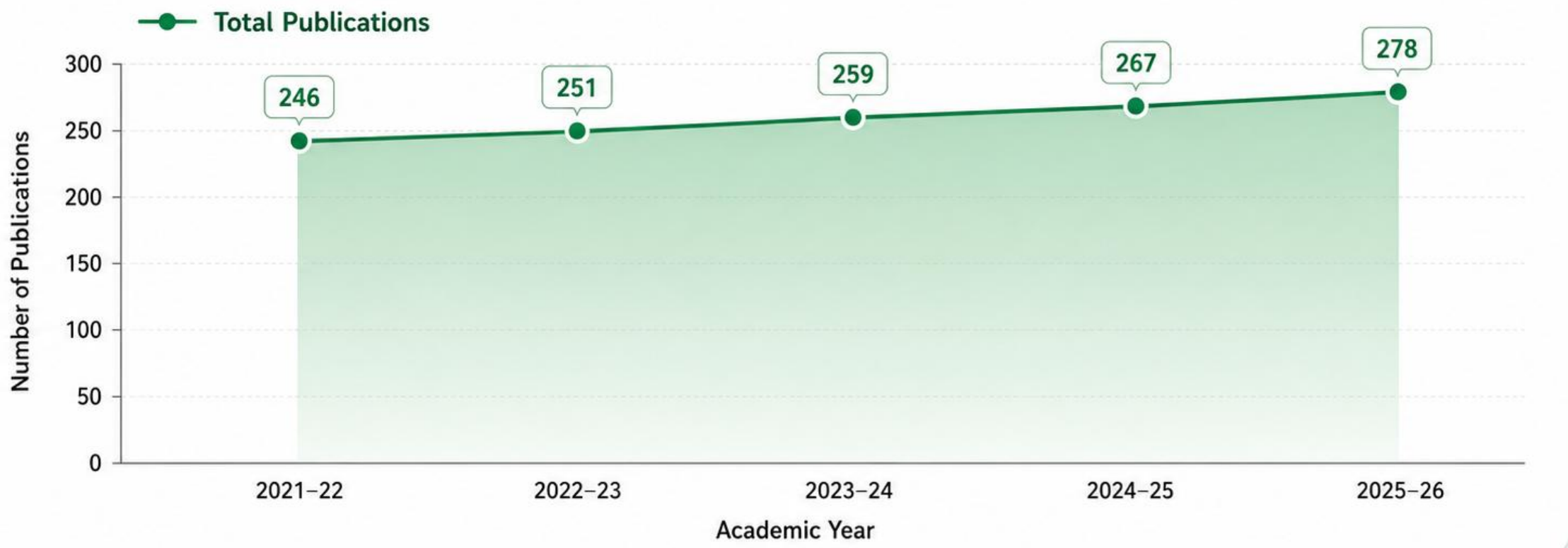
5
Books Authored
Published textbooks and research monographs

33
Patents
Indian and international patents filed and granted

12059
Total Citations
Cumulative citations reflecting global research impact

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
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Publications in the Last 5 Years



TOTAL PUBLICATIONS ON THE RISE

Total publications increased from **246** in 2021–22 to **278** in 2025–26.

+32 PUBLICATIONS OVER 5 YEARS

CHAPTER IV — RESEARCH

Patent Portfolio

The department's patent portfolio reflects applied innovation across AI, communication systems, sensors, embedded systems, and advanced electronics. With **25** Indian patents published and **7** Indian patents granted, along with **1** foreign patent granted, the department is actively building an intellectual property base aligned with national technology priorities.



25

Indian Patents Published

Applications published in the Indian Patent Office journal



7

Indian Patents Granted

Full patent rights granted by the Indian Patent Office



1

Foreign Patent Granted

International patent right conferred — an international IP milestone

Selected Granted & High-Impact Patents

The following represent the most notable granted and high-impact patents from the ECE department, covering a broad range of applied innovation areas. These patents demonstrate the department's ability to translate research into protectable intellectual property with societal and commercial relevance.



AI-based CCTV for Smart City Surveillance

Intelligent video analytics system for real-time threat detection in urban environments



Onboard Compression for Space Applications

Data compression algorithm optimized for satellite telemetry and onboard processing constraints



Programmable Electronic Jacquard Machine

FPGA-based electronic control for automated textile pattern generation



Graphite Respiration Sensor

Low-cost, flexible graphite-based sensor for respiratory monitoring in healthcare applications



LPDA UHF Sensor

Log-periodic dipole antenna for UHF sensing and signal monitoring



AI Device for Identifying Learning Disorders

Machine learning–based assistive technology for early identification of learning disabilities



CHAPTER V

Culture & External Connect

Distinguished Alumni

ECE graduates in leadership roles globally

Department Activities

Events, symposia, and technical programs

MOUs & Collaborations

Industry and institutional partnerships

Distinguished Alumni

The ECE department has produced graduates who have gone on to lead organizations, drive innovation, and make significant contributions across the technology industry and academia worldwide. The department's alumni network spans semiconductor companies, global IT firms, research institutions, and entrepreneurial ventures—serving as both ambassadors and valued collaborators for ongoing industry-academia linkages.



Prof. Bhaskar Choubey

Chair,
Analogue Circuits and Image Sensors,
University of Siegen.



Usha Gogineni

Principal MTS,
Modeling,
Analog Devices,
Massachusetts,
United States.



Venkat Pulletla

Distinguished Engineer / Evangelist,
Broadcom,
San Jose, CA.



Sreenivasrao Baru

Operations,
Industrialization and Transformation Leader.



Shri P. Venkata Ramana

Additional Director General,
Indian Railways Institute of Signal Engineering & Telecommunications,
Hyderabad.



G Muralidhar

Chief Mentor,
Akshara Livelihoods;
AP Community-Managed Natural Farming.



BHVS Narayana Murthy

Former DG of
DRDO's missilles and strategic systems.



Rakesh Dubbudu

Founder of Factly & Dataful; public data advocate, TEDx speaker, transparency campaigner.



C.J. Reddy

Vice President,
Business Development,
Electromagnetics Americas;
IEEE Fellow.



Mallik Tatipamula

Chief Technology Officer,
San Jose, California,
United States.



Prof. (Dr.) Sandeep Sancheti

Provost (Vice Chancellor),
Marwadi University;
Co-Founder.



Sudhakar Rao

RaoS Consultants,
Rancho Palos Verdes,
California, United States.

CHAPTER V — CULTURE & CONNECT

Department Activities & Events

The department maintains an active calendar of events that connects faculty, students, industry professionals, and the wider research community. From technical symposia and open days to sponsored student showcases and interdepartmental collaboration events, these activities reinforce the ECE department's culture of learning, innovation, and engagement.



Interaction Session

Discussion with Dr.D.L. · Scientist 'G' Mrs. Vijayalakshmi (NGRI-HYD / UGC)



External Examiners Visit

Visit of External Examiners from IISc Bangalore (ID-I & II, II Sem., M.Tech.)



Expert Committee Review

Academic and Research Review



Domain Talk

Industry Expert Interactions

CHAPTER V — CULTURE & CONNECT

MOUs & Collaborations

The department has established memoranda of understanding with leading industry organizations and research institutions. These partnerships support collaborative research, student internships, sponsored projects, curriculum co-design, and technology transfer.

Industry Partners

MOUs with semiconductor, telecom, IT, and electronics companies enabling joint labs, sponsored research, and student internship programs

Academic Institutions

Collaborations with IITs, national research institutions, and international universities for joint research, faculty exchange, and PhD co-supervision

Government & PSU Bodies

Research partnerships with DRDO, ISRO, DST, and other national agencies supporting defense, space, and strategic technology programs

THE UNIVERSITY OF TEXAS AT DALLAS

Universität Siegen

TECHNION Israel Institute of Technology

UNT UNIVERSITY OF NORTH TEXAS

KU LEUVEN

UiA Universitetet i Agder

UNIVERSITY OF ILLINOIS URBANA-CHAMPAIGN

PennState

TEXAS A&M UNIVERSITY

Charles Sturt University

CHAPTER V — CULTURE & CONNECT

Future Roadmap

With a strong foundation in research, teaching, and innovation, the ECE department is well-positioned for its next phase of growth. Strategic investments in research infrastructure, industry partnerships, and the innovation ecosystem will enable ECE at NIT Warangal to achieve national leadership and global recognition in frontier technology domains.

Research Thrusts

6G/THz, VLSI, AI/ML, Healthcare Diagnostics, RF/Microwave, Nanoelectronics — aligned with national missions and global technology trajectories

Industry Connect

Industry chairs, joint laboratories, structured internship programs, and increased sponsored project engagement with core electronics and deep-tech companies

Infrastructure Upgrade

Advanced laboratory equipment, high-performance GPU and compute clusters, and modernization of test and measurement infrastructure

Innovation Ecosystem

Scaling patent filing activity, supporting faculty and student startups, and building a pipeline of translational research and proof-of-concept projects

Professor of Practice, Visiting Professor



Thank You

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Prof. J. Ravikumar