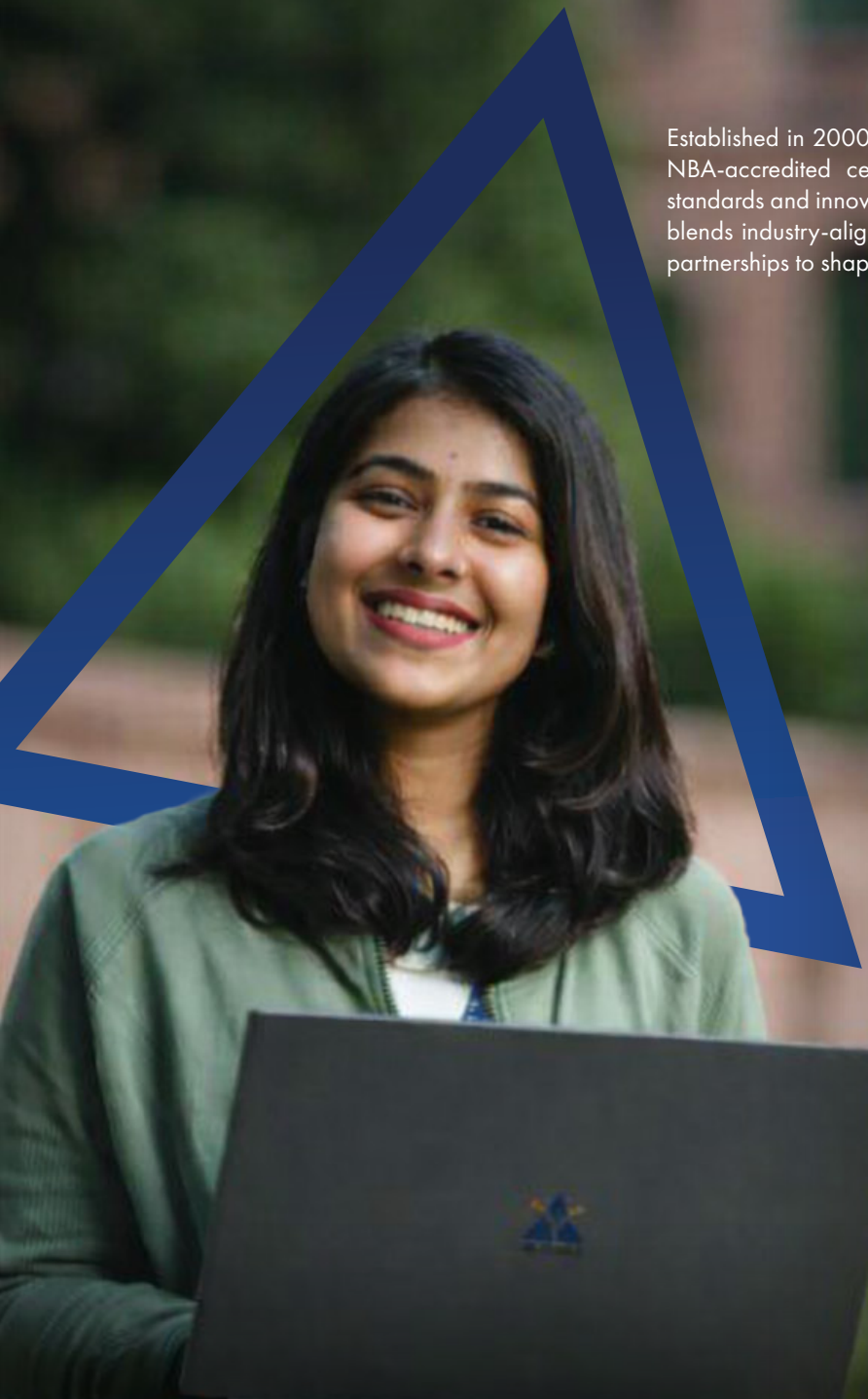
ACHARYA INSTITUTE OF TECHNOLOGY

Affiliated to VTU

NBA NATIONAL BOARD OF ACCREDITATION | NAAC A ACCREDITED

Established in 2000, **Acharya Institute of Technology (AIT)** stands as a NAAC & NBA-accredited centre of excellence, recognised by NIRF for its academic standards and innovation. Located on a vibrant 120-acre campus in Bengaluru, AIT blends industry-aligned education, advanced infrastructure, and strong corporate partnerships to shape future-ready engineers and technology leaders.



- **Industry-aligned programs** delivered by expert faculty, enriched with in-demand certifications like Ai, EV, Cyber Security, and emerging technologies.
- **Smart learning ecosystem** with LinkedIn Learning access, high-performance laptops, advanced labs, and a digital library.
- **Strong industry collaborations** enabling internships, live projects, and real-world exposure with leading corporations.
- **Global outlook** through international partnerships and a culturally diverse student community.
- **Proven placement excellence** supported by 550+ recruiting companies visiting the campus annually.

B.E ELECTRONICS & COMMUNICATION

About

Our Electronics and Communication program teaches students the intricacies of developing and testing electronic circuits and communication devices like transmitters, receivers and integrated circuits. Students benefit from state-of-the-art labs and cutting-edge technology, ensuring hands-on experience and practical application of theoretical knowledge. Our strategic collaboration with L&T further enhances the learning journey by providing students with exposure to real-world industry insights and the latest developments, allowing them to stay abreast of relevant happenings in the dynamic field.

- **Strong fundamentals in electronics & communication systems,** including digital and analog communication, signal processing, microelectronics and circuit design.
- **Hands-on experience in state-of-the-art labs** with tools like TEXAS-INSTRUMENTS, CADENCE and C-DAC to reinforce practical learning and experimentation.
- **Project-based learning and real-world applications,** where students test designs and implement solutions to solve engineering challenges.
- **Specialised focus on VLSI, embedded systems, and signal processing,** aligned with current electronics and communication industry needs.
- **Expert faculty with diverse specialisations** in communication & networking, VLSI, embedded systems, and signal processing to guide both theory and project work.

Career Scope

- **Telecommunications & networking roles –** Opportunities in mobile networks, satellite communications, wireless systems and telecom infrastructure, both in India and abroad.
- **Electronics & embedded systems careers –** Work as embedded systems engineer, VLSI designer, hardware developer or signal processing specialist across industries like defence, automotive, and consumer electronics.
- **Interdisciplinary tech opportunities –** Roles intersecting with computer science, IT and hardware-software integration, such as IoT, sensor technology, automation, and network security.

Duration
4 years

COURSE CONTENT

Semester 1

- Mathematics-I for ECE Streams
- Applied Physics for ECE Stream
- Elements of Electronics Engineering
- Basic Electronicsfor ECE stream
- Engineering Science Course - I
- Emerging Technology Course - I
- Programming Language Course - I
- Communicative English
- Professional Writing Skills in English
- Samskrutika Kannada / Balake Kannada
- Indian Constitution
- Innovation and Design Thinking
- Scientific Foundations of Health

Semester 3

AV Mathematics-III for EC Engineering

- Digital System Design using Verilog
- Electronic Principles and Circuits
- Network Analysis
- Analog and Digital Systems Design Lab
- ESC/ETC/PLC
  - Electronic Devices
  - Computer Organization and Architecture
  - Sensors and Instrumentation
  - Applied Numerical Methods for EC Engineers
- Social Connect and Responsibility
- Ability Enhancement Course/Skill Enhancement Course – III
  - LABVIEW programming
  - C++ Basics
  - MATLAB Programming
  - IOT for Smart Infrastructure
- National Service Scheme (NSS)
- Physical Education (PE) (Sports and Athletics)
- Yoga

Semester 2

- Mathematics - II for ECSI
- Chemistry for ECS
- Computer-Aided Engineering Drawing
- Engineering Science Course - II
- Programming Language Course - II
- Emerging Technology Course - II
- Professional Writing Skills in English
- Communicative English
- Indian Constitution
- Samskrutika Kannada/ Balake Kannada
- Scientific Foundations of Health
- Innovation and Design Thinking

Semester 4

- Engineering Electromagnetics
- Basic signal Processing
- Principles of Communication Systems
- Communication laboratory
- ESC/ETC/PLC
  - 8051 Microcontroller
  - Operating Systems
  - Industrial Electronics
  - Control Systems
- Ability Enhancement Course / Skill Enhancement Course - IV
  - Embedded C basics
  - DAQ using LabVIEW
  - PCB Design
  - Risk Management in IOT Implementation
- Biology For Engineers
- Universal human values course
- National Service Scheme (NSS)
- Physical Education (PE) (Sports and Athletics)
- Yoga



Semester 5

- Digital Communication
- Computer Organization & ARM Microcontroller
- Computer Communication Network
- Electromagnetics Waves
- Communication Lab II
- Research Methodology & Intellectual Property Rights
- Environmental Studies
- Ability Enhancement Course-V
  - IoT (Internet of Things) Lab
  - Communication Simulink Toolbox
  - Java Programming
  - Data Structures Using C++

Semester 7

- Advanced VLSI
- Optical & Wireless Communication
- Professional elective Course - II
  - Advanced Design Tools for VLSI
  - Digital Image Processing)
  - DSP Algorithms & Architecture
  - Biomedical Signal Processing
  - Speech Signal Processing
- Professional elective Course - III
  - IoT & Wireless Sensor Networks
  - Machine Learning with Python
  - Network Security
  - Multimedia Communication
  - Fabrication technology
- Open elective Course - II
  - Optical & Satellite Communication
  - Basic Digital Signal Processing
  - ARM Embedded Systems
  - E-waste Management
  - Basic Digital Image Processing
- Project work
- Technical Seminar
- Research Internship/ Industry Internship
- National Service Scheme (NSS)
- Physical Education (PE) (Sports and Athletics)
- Yoga

Semester 6

- Technological Innovation Management and Entrepreneurship
- Computer Organization & ARM Microcontroller
- VLSI Design & Testing
- Professional Elective Course - I
  - Artificial Neural Networks
  - Python Programming
  - Cryptography
  - Micro Electro Mechanical Systems
- Open Elective Course - I
  - Communication Engineering
  - Basic VLSI Design
  - Microcontrollers
  - Electronic Circuits with Verilog
  - Sensors & Actuators
- VLSI Laboratory
- Mini Project
- Innovation / Entrepreneurship / Societal Internship

Semester 8

- Professional Elective (Online Courses) Only through NPTEL
- Open Elective (Online Courses) Only through NPTEL
- Internship (Industry/Research) (14 - 20 weeks)

FEE STRUCTURE

Refer offer letter for the actuals.

Inclusions: Tuition Fee, University Registration, Eligibility Fee, Miscellaneous Fee, Laboratory Fee, Library Fee and Sports Fee.

Exclusions: Uniform & Stationery.
Examination Fee as prescribed by the University / Board.

The Program Includes OBT, AMCAT/CoCubes, Soft Skills Training, Domain-Specific Training and LinkedIn Learning. Students are also provided with a Complimentary Laptop and Global Immersion Program.

Acharya Legacy

Founded in 1990, Acharya aims to revolutionize education. With over 12,000 students and 100+ academic programs annually, it stands among the global education elite. Located in India's technical hub, Bangalore, Acharya prioritizes innovation and knowledge. The institution fosters experiential and collaborative learning, shaping well-rounded individuals, evident in its diverse student population from 75+ countries.

11 Institutions

15 Research Centers

100+ Programmes

75+ Nationalities

12000+ Students

1000+ Eminent Faculty

120 Acres State-of-the-Art Campus



B Premnath Reddy
Founder Chairman
Acharya Group

Acharya Offerings - click on each to know more... »

Academic Studio



Collaboration



Center of Excellence



Clubs



Digital Library



Laboratories



Research



Sports



Hostels



Habba



PROGRAMS OFFERED

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