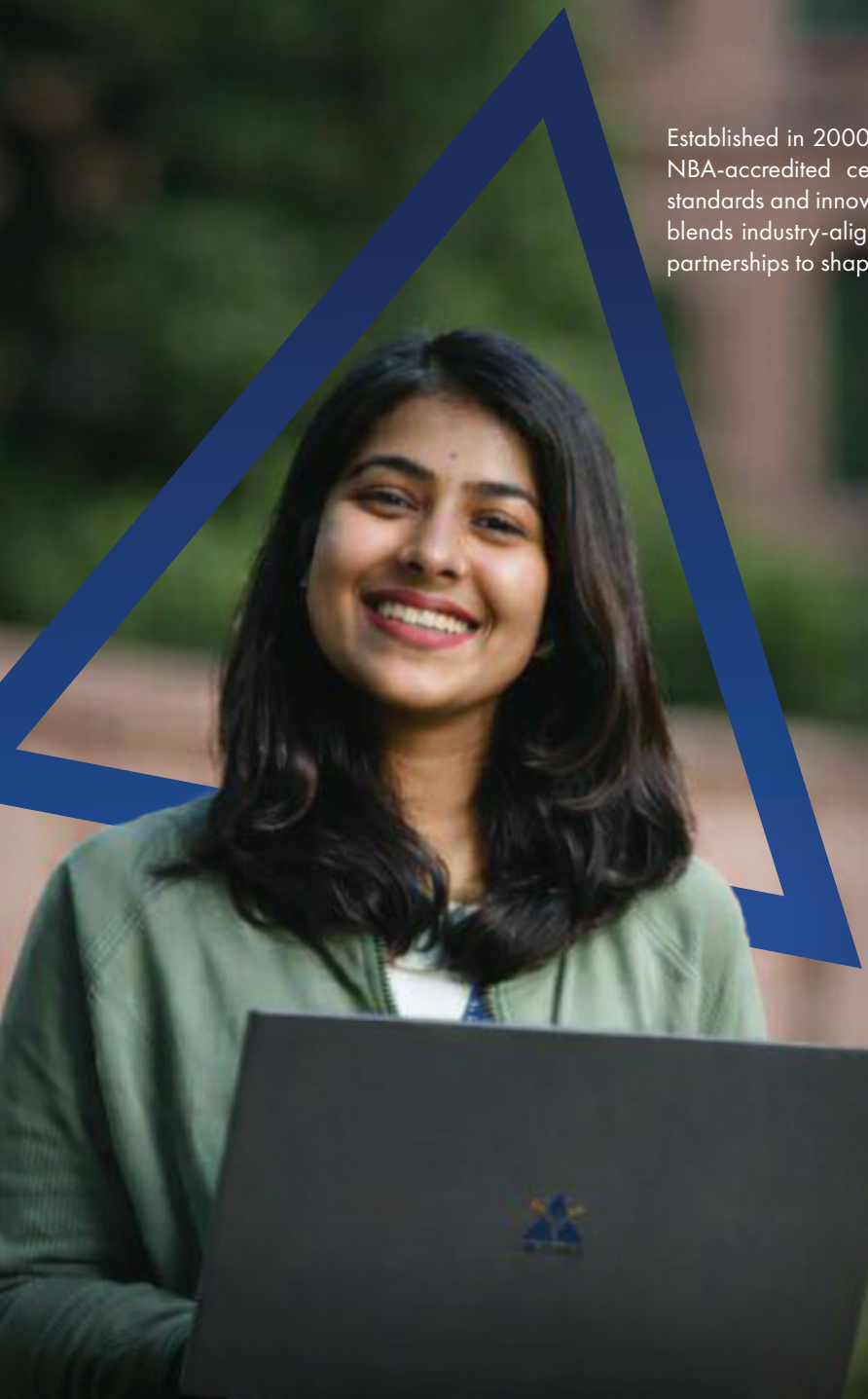
ACHARYA INSTITUTE OF TECHNOLOGY

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 ELECTRICAL AND ELECTRONICS

Specialization in Electric Vehicle
Powered by
LARSEN & TOUBRO

About

The Electrical and Electronics Engineering program encompasses the in-depth study, design, and implementation of equipment, devices, and systems that leverage electricity, electronics, and electromagnetism. 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.

Comprehensive EEE curriculum covering electrical principles, electronics, power systems, and renewable energy sources for a balanced foundational and advanced understanding.

Hands-on practical exposure with state-of-the-art labs, real projects, industrial visits, and power project activities to build real-world engineering skills.

Strategic collaboration with L&T, offering students insights into current industry practices and trends in electrical and power engineering.

Research and innovation opportunities with faculty publications, research activities, and access to cutting-edge facilities that strengthen inquiry and technical depth.

Expert faculty and academic ecosystem supported by experienced educators, value-added programs, global internships, and digital classrooms to enhance learning outcomes.

Career Scope

Core electrical & power engineering roles – Graduates can pursue careers in power generation, distribution, transmission, and renewable energy systems across utilities and engineering firms.

Electronics and automation opportunities – Roles such as automation engineer, control systems specialist, and electronics design engineer in manufacturing, telecom, and industrial sectors.

Global demand and innovation pathways – Strong opportunities in technological innovation, sustainable energy solutions, and international markets, with competitive starting positions and growth potential.

Eligibility

10+2 with PCM/PMC/PME + English, min 45%.
Age 17+.

Duration
4 years

COURSE CONTENT

Semester 1

- Mathematics-I for EEE Streams
- Applied Physics for EEE Stream
- Elementsof Electrical Engineering
- Basic Electronicsfor EEE 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

Engineering Mathematics for EEE

- Electric Circuit Analysis
- Analog Electronic Circuits
- Transformers and Generators
- Transformers and Generators lab
- ESC/ETC/PLC
  - Digital Logic Circuits
  - Electrical Measurements and Instrumentation
  - Electromagnetic Field Theory
  - Physics of Electronic Devices
- Social Connect and Responsibility
- Ability Enhancement Course/Skill Enhancement Course - III
  - SCI LAB/MATLAB for Transformers and Generators
  - Circuit Laboratory using P Spice
  - 555 IC Laboratory
  - Electrical Hardware Laboratory
- National Service Scheme (NSS)
- Physical Education (PE) (Sports and Athletics)
- Yoga

Semester 2

- Mathematics-II for EESI
- Chemistry for EES
- 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

Electric Motors

- Transmission and Distribution
- Microcontrollers
- Electric Motors lab
- Ability Enhancement Course/Skill Enhancement Course- IV
  - Basics of VHDL Lab
  - PCB Design Laboratory
  - Sci Lab / MATLAB for Electrical and Electronic Measurements
  - Aurdino & Rasberry PI Based Projects
- ESC/ETC/PLC
  - Electrical Power Generation and Economics
  - Op-Amp and LIC
  - Engineering Materials
  - Object Oriented Programming
- Biology For Engineers
- Universal human values course
- National Service Scheme (NSS)
- Physical Education (PE) (Sports and Athletics)
- Yoga



Semester 5

- Engineering Management and Entrepreneurship
- Signals & DSP
- Power Electronics
- Professional Elective Course(Industry suggested course)
  - Vertical Elective –I: POWER ENGINEERING
  - Vertical Elective –II : CONVERTERS AND DRIVES
  - Vertical Elective –IV : ELECTRIC VEHICLE TECHNOLOGY
  - Vertical Elective –V: ELECTRICAL SYSTEM AUTOMATION
- Mini Project
- Research Methodology and IPR
- Environmental Studies
- National Service Scheme (NSS)
- Physical Education (PE) (Sports and Athletics)
- Yoga

Semester 7

- Scalable Computing
- Statistical Machine Learning for Data Science
- Information & Network Security
- Professional Elective Course
  - IOT Analytics
  - Business Analytics
  - Data Engineering & MLOps
  - Deep Learning
- Open Elective Course

Introduction to DBMS

- Major Project Phase-II

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, Long Term Domain Training and LinkedIn Learning. Students are also provided with a Complimentary Laptop and Global Immersion Program.

Semester 6

- Power system Analysis I
- Control Systems

Professional Elective Course

- Vertical Elective –I: POWER ENGINEERING
- Vertical Elective –II : CONVERTERS AND DRIVES
- Vertical Elective –III: EMBEDDED SYSTEMS
- Vertical Elective –IV : ELECTRIC VEHICLE TECHNOLOGY
- Vertical Elective –V: ELECTRICAL SYSTEM AUTOMATION

- Open Elective Course
  - Utilization of Electrical Power
  - Renewable Energy Sources
  - Industry suggested course
  - Industrial Servo Control Systems
  - Semiconductor Devices
  - Industry suggested course
- Project Phase I
- Control System Lab
- Ability Enhancement Course/Skill Development Course V
- National Service Scheme (NSS)
- Physical Education (PE) (Sports and Athletics)
- Yoga

Semester 8

- Professional Elective (Online Courses)
  - Vertical Elective –I: POWER ENGINEERING
  - Vertical Elective –II : CONVERTERS AND DRIVES
  - Vertical Elective –III: EMBEDDED SYSTEMS
  - Vertical Elective –IV : ELECTRIC VEHICLE TECHNOLOGY
  - Vertical Elective –V: ELECTRICAL SYSTEM AUTOMATION
  - Open Elective (Online Courses)
  - Industry suggested course/ MOOCS
  - Industry suggested course / MOOCS
  - NPTEL /MOOCS
  - NPTEL MOOCS
- Internship (Industry/Research) (14 - 20 weeks)

ENRICHMENT PROGRAM CONTENT

- **2nd Sem** : Foundations of EV & Hybrid Vehicles
- **3rd Sem** : EV Battery Technology and Powertrain Development
- **4th Sem** : EV Power Electronics & Embedded Systems
- **5th Sem** : EV Charging Infrastructure, Vehicle Testing & Homologation
- **6th Sem** : EV Vehicle Design & Analysis
- **7th Sem** : EV PCB Design & Data Analytics

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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