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.

ROBOTICS AND ARTIFICIAL ENGINEERING

Specialization in Product Life Cycle Management (PLM) powered by

SIEMENS

About

Engineering and robotics, along with artificial intelligence, is a rapidly growing field that prepares students to meet the demands of research, development, and industrial manufacturing. The need for skilled graduates is at an all-time high, given the increasing implementation of robotics and AI to perform data-intensive and repetitive tasks. Our program is designed to cultivate experts in Robotics and Artificial Intelligence, developed in collaboration with industry leaders to ensure it aligns with the most current trends and cutting-edge technologies.

Interdisciplinary robotics & AI curriculum that blends mechanical engineering, electronics, computer science and AI to build future-ready technical expertise.

Multidisciplinary learning and system design, enabling students to apply integrated concepts across robotics systems, automation and intelligent technologies.



Algorithm design & implementation focus, where students design and test AI algorithms for real robotic applications.

Practical labs and hands-on projects using industry-standard tools and technologies aligned with current technological trends.

Access to cutting-edge technology and innovations, preparing students for the fast-evolving landscape of automation, machine learning and intelligent systems.

Career Scope

- **Robotics & AI engineering roles –** Graduates can pursue careers as Robotics Engineers, AI Developers, Automation Specialists, and Intelligent Systems Designers in industries like automotive, manufacturing, and defence.
- **Tech & research careers –** Opportunities in machine learning, computer vision, embedded systems, autonomous systems and R&D teams across global tech companies and startups.
- **Cross-sector innovation pathways –** Scope in healthcare robotics, smart manufacturing, IoT-driven automation and AI-enabled products, with potential for advanced studies or entrepreneurship.

Eligibility

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

Duration

4 years

COURSE CONTENT

Semester 1

- Mathematics-I for Mechanical Engg Stream
- Applied Physics for ME Stream
- Elements of Mechanical Engineering
- 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 2

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

Semester 3

- Fundamentals of Robotics & Applications
- Manufacturing Technology for Robots
- Analog and Digital Electronic Circuits
- Data Structures and Algorithms
- Introduction to Modeling and Design for Manufacturing
- ESC / ETC / PLC
- Social Connect and Responsibility
- Ability Enhancement Course / Skill Enhancement Course – III
- NSS / Physical Education (PE) / Yoga / Music

Semester 4

- Robot Kinematics, Dynamics and Control
- Mechanics and Measurement Systems for Robots
- Microcontroller
- Robot Programming & Simulation Lab
- ESC / ETC / PLC
- Ability Enhancement Course / Skill Enhancement Course – IV
- Biology For Engineers
- Universal Human Values Course
- NSS / PE / Yoga / Music



Semester 5

- Managerial Economics for Robotics
- Hydraulics & Pneumatics
- Fundamentals of AI for Robots
- Artificial Intelligence Lab
- Professional Elective Course
- Mini Project
- Research Methodology and IPR
- Environmental Studies
- NSS / PE / Yoga / Music

Semester 6

- Robot Operating System
- Digital Image Processing
- Professional Elective Course
- Open Elective Course
- Project Phase I
- Virtual Instrumentation & Automation Lab
- Ability Enhancement Course / Skill Development Course V
- NSS / PE / Yoga / Music
- Indian Knowledge System

Semester 7

- Control Engineering
- Natural Language Processing
- Cloud Computing
- Professional Elective Course
- Open Elective Course
- Major Project Phase-II

Semester 8

- Professional Elective (Online Courses)
- Open Elective (Online Courses)
- 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, Long Term Domain Training and LinkedIn Learning. Students are also provided with a Complimentary Laptop and Global Immersion Program.

ENRICHMENT PROGRAM CONTENT

PLM by SIEMENS

- **2nd Sem** : CAD Fundamental Processes
- **3rd Sem** : Teamcenter User + NX Integration/ PLM Fundamentals (Concepts) + Teamcenter Active Workspace usage
- **4th Sem** : Teamcenter Administration + Data Model Customization (Working with Admin Application)
- **5th Sem** : Teamcenter Customization
- **6th Sem** : Teamcenter Active Workspace Customization



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

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Hostels



Habba



PROGRAMS OFFERED

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