

# ACHARYA INSTITUTE OF TECHNOLOGY

#### Affiliated to VTU



- Accredited, industry-aligned programs with expert faculty.
- Access to LinkedIn and high-performance laptops for seamless learning.
- In-demand certifications in EV, Cyber Security, and more for career advantage.
- Global exposure through partnerships and a diverse student body.
- Cutting-edge labs and a digital library for comprehensive resources.
- Collaborations with top corporations offering internships and projects.
- Vibrant clubs and activities focused on holistic development.
- Robust placement support with 550+ recruiting companies annually.

# **B.E INFORMATION SCIENCE & ENGINEERING (CYBER SECURITY)**

Specialization in Cyber Seurity powered by **EC-Council** 

# About

Information Science and Engineering deals with the generation, distribution, analysis, and use of information, data, and knowledge in systems. Our extensive course equips students with problem-solving skills and adaptability and makes them ready to play a crucial role in shaping today's technology-driven world. Additionally, our partnership with the EC Council enriches their understanding of cybersecurity challenges, providing an opportunity for certification by the company.

### **Career Scope**

Software Development Opportunities: Information Science engineers are in high demand for software development roles.

**Cybersecurity Expertise**: With the increasing threat of cyber attacks, information science engineers specializing in cybersecurity are crucial.

**Dynamic Career Paths**: The versatility of information science engineering opens doors to diverse career paths, from software development to data analysis, systems administration, and technology consulting.

# Eligibility

Pass in 10+2 / Higher Secondary (HS) / Pre University (PUC) / 'A' Level (with 12 years of schooling) or its equivalent with English as one of the languages. Shall have secured a minimum of 45% marks in aggregate in Physics, Mathematics and any one of the following: Chemistry, Biology, Computer Science, Electronics. AIT admits students as per prevailing rules and regulations of VTU.

Candidate must have completed 17 years by June - for the year of admission.

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years

# **COURSE CONTENT**

#### Semester 1

- Mathematics-I for CSE Stream
- Applied Physics for CSE stream
- Principles of Programming Using C
- Engineering Science Course-I
- Emerging Technology Course-I
- Programming Languages 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

- Mathematics for Computer Science
- Digital Design & Computer Organization
- Operating Systems
- Data Structures and Applications
- Data Structures Lab
- ESC/ETC/PLC
- Object Oriented Programming with Java
- Object Oriented Programming with C++
- Social Connect and Responsibility
- Ability Enhancement Course/Skill Enhancement Course – III
  - Data analytics with Excel
  - R programming
  - Project Management with Git
- Data Visualization with Phyton
- National Service Scheme (NSS)
- Physical Education (PE) (Sports and Athletics)
- Yoga

#### Semester 2

- Mathematics-II for CSE Stream
- Applied Chemistry for CSE Stream
- 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 Kannad
- Scientific Foundations of Health

#### Semester 4

- Analysis & Design of Algorithms
- Advanced Java
- Database Management Systems
- Analysis & Design of Algorithms Lab
- ESC/ETC/PLC
- Ability Enhancement Course/Skill Enhancement Course- IV
  - Green IT and Sustainability
  - Capacity Planning
  - UI/UX
- Technical writing using LATEX
- Biology For Engineers (Information Technology in Biology)
- Universal human values course
- National Service Scheme (NSS)
- Physical Education (PE) (Sports and Athletics)
- Yoga

#### Semester 5

- Software Engineering & Project Management
- Computer Networks
- Theory of Computations
- Data Visualization Lab
- Professional Elective Course
- Computer Vision
- Artificial Intelligence
- Distributed Systems
- Unix System Programming
- Mini Project
- Research Methodology and IPR
- Environmental Studies
- National Service Scheme (NSS)
- Physical Education (PE) (Sports and Athletics)
- Yoga

#### Semester 7

Big Data Analytics

- Parallel Computing
- Information & Network Security
- Professional Elective Course
  Deep Learning
  Software Quality Assurance
- Embedded Systems
- Distributed File Systems
- Open Elective Course Introduction to DBMS Introduction to Algorithms Software Engineering
- Major Project Phase-II

#### Semester 6

- Full Stack Development
- Machine Learning
- Professional Elective Course Blockchain Technology Internet of Things
  - Compiler Design
- Cloud Computing
- Open Elective Course
- Introduction to Data Structures
- Fundamentals of Operating Systems
- Mobile Application DevelopmentIntroduction to AI
- Project Phase I
- Machine Learning lab
- Ability Enhancement Course/Skill Development Course V
  - Progressive App Development
  - Tosca Automated Software Testing
  - Cyber Laws
- Devops
- National Service Scheme (NSS)
- Physical Education (PE) (Sports and Athletics)
- Yoga

#### Semester 8

- Professional Elective (Online Courses) Only through NPTEL)
- BOS will publish courses based on the availability
- Open Elective (Online Courses) Only through NPTEL
- BOS will publish courses based on the availability
- Internship (Industry/Research) (14 20 weeks)

### Acharya Legacy

11 Institutions

**1**5 Research Centers

**10PP**rogrammes

754 Nationalities

1200P+ Students

**100P**+Eminent Faculties

12PAcres State-of-the-Art Campus

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.

**B Premnath Reddy** Founder Chairman Acharya Group

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#### Sports



PROGRAMS OFFERED





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