univo | **IIT Guwahati** (E & ICT)

Advanced Certification Program in

CYBERSECURITY

CONTENT

EMPOWERING FUTURES: DISCOVER E&ICT ACADEMY, IIT GUWAHATI

ABOUT E&ICT ACADEMY

Sponsored by MeitY, the Electronics and ICT Academy, IIT Guwahati provides specialized training to faculty members from various educational institutions. Equipped with state-of-the-art facilities, the academy offers short-term training programs covering IT, electronics, communication, product design, and manufacturing. It also conducts workshops to promote research and innovation in collaboration with corporate sectors.

ABOUT IIT GUWAHATI

Established in 1994, the Indian Institute of Technology Guwahati (IIT Guwahati) has swiftly emerged as a beacon of academic excellence within the IIT family. The institute boasts world-class infrastructure and cutting-edge scientific and engineering tools, supporting advanced research across diverse disciplines. Beyond academia, IIT Guwahati plays a pivotal role in fulfilling the Northeast region's aspirations.

BENEFITS OF CHOOSING THE E&ICT ACADEMY, IIT GUWAHATI

Course Monitoring
by E&ICT Academy, IIT Guwahati

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Syllabus curated by IITG faculties arranged by E&ICT Academy, IIT Guwahati

Special expert sessions by IIT Faculties (to be arranged by E&ICT Academy, IITG)

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Certification
by E&ICT Academy, IIT Guwahati

Alumni status of E&ICT Academy, IIT Guwahati

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Campus Immersion program for successful learners at IIT Guwahati

ABOUT UNIVO EDUCATION

At UNIVO Education, we believe in making high-quality education accessible to everyone, prioritizing affordability without compromising on excellence. Our innovative online platform allows you to study flexibly, enabling learning that seamlessly integrates into your busy schedule. With UNIVO Education embark on a transformative educational journey where your success is our priority.

At UNIVO Education, our programs are meticulously designed to align with industry standards, equipping you with the skills and knowledge needed for career advancement. Through strategic partnerships with prestigious universities worldwide, we offer a wide range of programs in technology, finance, arts, design, and more, ensuring a global perspective in your education.

ABOUT THE PROGRAM

Welcome to the Advanced Certification Program in Cybersecurity!

This program is your gateway to a comprehensive learning experience spanning eight months. Dive deep into the realms of Cybersecurity through modules designed to equip you with essential skills and knowledge. Our curriculum covers foundational concepts, network security, incident detection, penetration testing, and advanced Cybersecurity domains, ensuring you have a well-rounded understanding of Cybersecurity principles.

Throughout the program, you'll engage in practical hands-on labs, interactive discussions, and real-world case studies. You'll work with industry-standard tools and technologies, gaining proficiency in areas like secure coding, threat analysis, risk assessment, and incident response. The program also emphasizes the importance of continuous learning, industry best practices, & leadership skills crucial for success in Cybersecurity roles.

MODE:
Live Online
(Instructor-led)

DURATION:
8 Months

FEE:
₹2,40,000
(+GST)

INDIAN JOB MARKET INSIGHTS

The Indian Cybersecurity job market is burgeoning, with an increasing demand for skilled professionals to protect digital assets. The program prepares participants for roles such as Cybersecurity analyst, network security engineer, and more, catering to this growing market need.

Job Growth:
By 2025,
Cybersecurity is set to create over 3 million new jobs globally.

Indian Talent:
India contributes to 12%
of the global Cybersecurity workforce, making it a significant talent hub.

Spending Surge:
Cybersecurity spending is expected **to exceed $1 trillion by 2025,** reflecting the critical investment in digital security.

IoT Cybersecurity Growth:
The global IoT security market is projected to reach **$73.9 billion by 2028, with a CAGR of 29.4%,** driven by the rise in connected devices and security needs.

Skill Shortage:
A skill gap of 3.5 million Cybersecurity jobs is anticipated by 2025, highlighting the demand for skilled professionals in the field.

Join us on this transformative journey and position yourself for success in India's thriving Cybersecurity job market.

*Sources– Website: ISC2, DSCI, Gartner, Cybersecurity Ventures, Grand View Research

PROGRAM CURRICULUM

The program is structured over 8 months with live sessions, theoretical lectures, practical lab sessions, and a capstone project to consolidate learning.

FOUNDATIONS OF CYBERSECURITY

NETWORK SECURITY AND INCIDENT DETECTION

ADVANCED CYBERSECURITY DOMAINS

PENETRATION TESTING & THREAT ANALYSIS

CAPSTONE PROJECT

PROGRAM DETAILS

Key Features

Joint certification by E&ICT Academy, IIT Guwahati & UNIVO Education

Immersive live lectures by IIT faculty and Industry experts

Real-World Experience

Hands-on lab sessions

Key Highlights

Alumni Status

Campus Immersion

Capstone Project

Comprehensive Curriculum

DETAILED COURSE CURRICULUM

SECTION 1: Foundations of Cybersecurity

Module 1: Python Essentials for Cybersecurity

- Python Environment Setup and Essentials
- Python Language Basic Constructs
- File Handling in Python
- Python Libraries for Cybersecurity

Module 2: Introduction to Linux for Cybersecurity

- Basics of Linux OS
- File Management in Linux
- User and Group Management
- Networking and Security in Linux

Module 3: Working with Kali Linux

- Introduction to Kali Linux
- Services in Kali (HTTP, SSH)
- Command Line Utilities in Kali Linux
- Python and Bash Scripting in Kali

SECTION 2: Network Security and Incident Detection

Module 4: Network Security

- Networking Concepts
- Threats and Vulnerabilities
- Security Controls
- Traffic Analysis
- Packet Analyzers

Module 5: Incident Detection with SIEM

- SIEM Fundamentals
- SIEM Solutions and Deployment
- Incident Detection at various levels
- Alert Handling and Analysis

DETAILED COURSE CURRICULUM

SECTION 3: **Advanced Cybersecurity Domains**

Module 6: Security Operations and Management

- Introduction to SOC
- Components of SOC
- Incident Response Playbooks
- Threat Hunting Methodologies
- Open-Source Intelligence (OSINT)
- Introduction to Malware Analysis

Module 7: Identity and Access Management (IAM)

- Logical/Physical Access Management
- Authentication and Identification Management
- Authorization Mechanisms
- Identity Lifecycle and Access Provisioning

SECTION 4: **Penetration Testing and Threat Analysis**

Module 8: Web Application Security

- OWASP Tools and Methodologies
- Cryptography Basics
- Introduction to API
- Patch Management
- Web Apps penetration testing

SECTION 5: **Capstone Project and Review**

Module 9: Capstone Project

PROGRAM BENEFITS

COMPREHENSIVE KNOWLEDGE IN CYBERSECURITY

➤ Gain an in-depth understanding of the evolving cyber threat landscape, secure coding practices, network security, incident management, digital forensics, and more.

➤ Master the theoretical and practical aspects of Cybersecurity to build a solid foundation that supports advanced learning and specialization.

HANDS-ON EXPERIENCE WITH REAL-WORLD TOOLS & SCENARIOS

➤ Engage in immersive lab sessions and practical exercises that replicate real-world Cybersecurity challenges.

➤ Work with industry-standard tools such as OWASP ZAP, Burp Suite, SIEM solutions, and Kali Linux to develop the skills needed to detect, prevent, and respond to cyber threats effectively.

➤ Apply your knowledge in simulated environments to gain confidence and experience in handling complex security situations.

PRESTIGIOUS CERTIFICATION FROM E&ICT ACADEMY, IIT GUWAHATI

➤ Earn a joint certification from E&ICT Academy, IIT Guwahati and UNIVO Education, enhancing your professional credibility and recognition in the industry.

➤ Leverage the reputation and expertise of IIT Guwahati, a leading institution known for its excellence in technology education and research.

➤ Benefit from the added value of a certification that is highly respected by employers and industry leaders globally.

PREPARATION FOR VARIOUS CYBERSECURITY ROLES

➤ Equip yourself with the skills and knowledge to pursue diverse career opportunities in Cybersecurity, such as Cybersecurity analyst, network security engineer, penetration tester, and more.

➤ Develop strategic and managerial skills to lead Cybersecurity initiatives and effectively communicate risks to stakeholders.

FACULTY & INDUSTRY LEADERS

The program features esteemed faculty arranged by E&ICT Academy, IIT Guwahati and experienced industry leaders who provide expert guidance and insights throughout the course.

Dr. Gaurav Trivedi
Principal Investigator, E&ICT Academy, IIT Guwahati

Dr. Srinivasan Krishnaswamy
Programme Director, Associate Professor, Dept. of EEE, IIT Guwahati

Dr. Akashdeep Bhardwaj
Faculty & Industry Expert, EC-Council CHFI, USA, CompTIA, USA, Global Cybersecurity Assoc.

Prof. Keshav Kaushik
Faculty & Industry Expert, Cybersecurity Researcher, ACM Member

LIST OF CASE STUDIES

Participants will engage in a capstone project that involves real-world Cybersecurity challenges, providing practical experience and enhancing their problem-solving skills.

Web Application Risk Assessment

Secure Architecture Design

Penetration Testing (Red Team)

Vulnerability Patching (Blue Team)

Secure Coding Review (Blue Team)
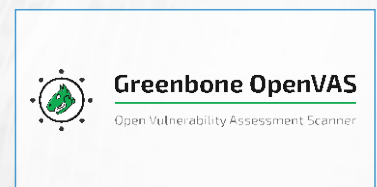
Intrusion Detection (Blue Team)

Secure Configuration Management (Blue Team)

Security Incident Response (Blue Team)

TOOLS YOU WILL WORK WITH

python™

OWASP
Open Web Application
Security Project

Greenbone OpenVAS
Open Vulnerability Assessment Scanner

KALI

splunk>

WIRESHARK

*Tools, Projects & Case Studies : Subject to change

PROGRAM CERTIFICATION

Our program includes periodic evaluations such as quizzes, assignments, and other assessments. To successfully complete the program, participants must:

- ☑ Attend at least 75% of the LIVE lectures.
- ☑ Submit all required assignments.
- ☑ Submit a capstone project.
- ☑ Satisfactorily complete all evaluations.

Participants meeting all of these criteria will be awarded a Certificate of Completion.
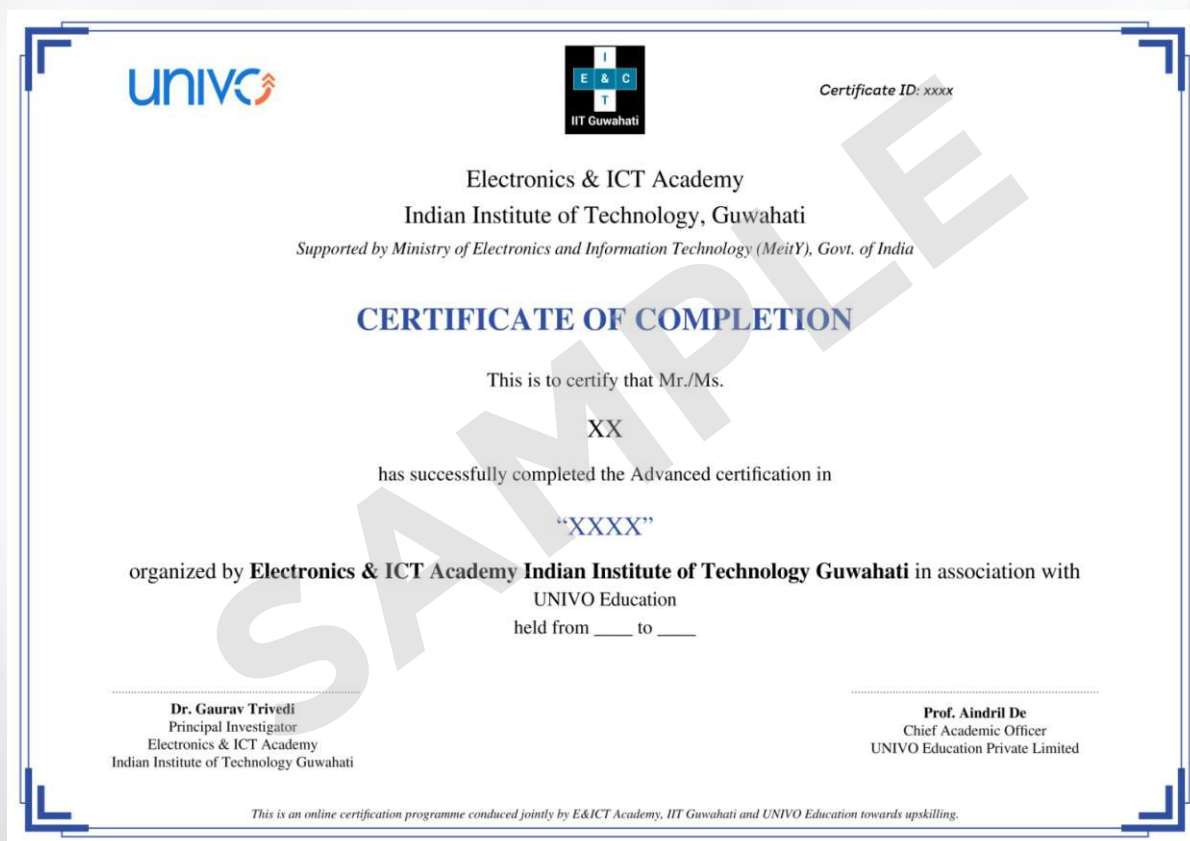
WHO CAN APPLY?

This program is ideal for experienced IT professionals (3+ years) aiming to transition into Cybersecurity.

Foundational IT Knowledge:
Understanding of networking, Windows/Linux systems, & protocols.

Web Technology Knowledge:
Familiarity with HTTP/HTTPS, web servers, applications, & vulnerabilities.

Practical Experience:
Ability to configure firewalls, set up virtual machines, and use security tools.

Soft Skills:
Effective communication and security awareness.

Continuous Learning:
Interest in staying updated with Cybersecurity trends & technologies.

ELIGIBILITY CRITERIA

Graduates from a recognized university in any discipline.

Basic understanding of computer networks & programming concepts

Familiarity with IT infrastructure & software development lifecycle

APPLICATION PROCESS

Initiate Your Application

STEP 01

☑ Start your journey by clicking on the " APPLY NOW → " button on the website
https://univo.education/program/certificate-in-cybersecurity/

☑ You'll be directed to our user-friendly application portal.

Complete Application Details

STEP 02

☑ Fill in your personal information, educational background, and any relevant experience.

☑ Upload any required documents.

☑ Ensure accuracy and completeness.

Secure Your Seat

STEP 03

☑ After submitting your application, proceed to the registration payment section.

☑ Make the payment to secure your seat in the program.

Access the Program

STEP 04

☑ Receive 'Admission offer' by E&ICT Academy, IIT-Guwahati.

☑ Receive credentials for the learning platform.

FREQUENTLY ASKED QUESTIONS

1. How long is the course?

The course spans a duration of 8 months.

2. Which certificate will be awarded upon completion of the program?

Upon successful completion, you will receive an Advanced Certification in Cybersecurity jointly awarded by E&ICT Academy, IIT Guwahati, and UNIVO Education.

3. When and how will I attend classes?

Classes are scheduled to accommodate the needs of working professionals, with sessions held during weekday evenings and weekends.

4. What is the attendance policy?

You must maintain a minimum of 75% attendance in live lectures and submit all assignments to successfully complete the program.

5. What if I miss a class?

While attending all classes is strongly recommended, you can catch up by watching recorded sessions available on our learning platform.

6. When will the live sessions be conducted?

Live sessions will be held during weekday evenings and weekends (Saturdays and Sundays), tailored to fit the schedule of working professionals.

7. Does IIT faculty deliver live sessions?

Yes, the program features live sessions delivered by esteemed faculty from E&ICT Academy, IIT Guwahati, along with insights from experienced industry leaders.

8. What study materials will be provided for the program?

You will have access to class recordings, faculty notes, tools, and reference materials on our integrated online learning portal, ensuring you can review and study at your convenience.

CONNECT WITH AN CAREER COUNSELOR

Our committed admissions counselors are ready to assist with any queries or worries you may have regarding the Cybersecurity program.

WE'RE AVAILABLE TO

Answer any queries you have about the application process.

Discuss financing options that suit your needs.

Provide a deeper understanding of the curriculum, program outcomes, and more.

For authenticity of the program, contact +91-361-2583182/ 0361-2583182, Mon-Fri, 9:30 am-5:00 pm

For admission & support related queries:

+91 9999 806 189 | **support@univoedtech.com**