



Executive MTech **IN** **Cyber Security & Ethical Hacking**



2 Years | Online Immersive Sessions | Graduate from an IIT

WHY UPSKILL FROM IIT BHILAI?


Indian Institute of Technology (IIT) Bhilai was established in the state of Chhattisgarh by the Ministry of Education in the year 2016.

IIT Bhilai is presently housed in its permanent campus at Kutelabhata, Bhilai, Chhattisgarh.

At IIT Bhilai, we understand the demands of the dynamic corporate landscape, and our Executive MTech programs are meticulously crafted to provide a seamless blend of academic excellence and real-world applicability. Whether you aspire to advance in your current role, switch career paths, or stay ahead of industry trends, our Executive MTech courses offer the strategic edge you need to thrive in a competitive landscape.



Program Overview



The Online Cyber Security and Ethical Hacking Executive Program is designed to equip professionals with the critical skills needed to protect organizations from cyber threats and vulnerabilities. This comprehensive program covers key aspects of cybersecurity, including threat analysis, risk management, network security, cryptography, and ethical hacking techniques. Participants will gain hands-on experience in identifying and mitigating cyber risks, conducting penetration testing, and implementing robust security measures to safeguard data and systems. With a focus on real-world applications, the program also explores legal and ethical issues in cybersecurity, ensuring participants understand the importance of compliance and responsible hacking practices.

Who Can Apply?

- Min 2 years of Experience within preceding 5 Years
- Should have B.Tech/ BE/ M.Tech/ MSc (In Relevant Field- 4 Semester Program) / MCA (4 Semester Program) / MS Degree (min. 4 Semester Program).
- In the qualifying degree at least 55 percent marks or equivalent 5.5 CGPA/CPI must be there. In case of the candidate belonging to SC, ST, or Persons with Disability (PwD) category, this is relaxed to 50% or equivalent 5.0 CGPA/CPI. For MCA/MSC passed graduates, the percentage score of MCA/MSC would be considered. For BE/BTech Engineering graduates without PG specialization, the percentage score of the undergraduate degree would be considered. For a post graduation in the Engineering field of study, PG score qualification can be considered.
- Selection process will be scheduled post counseling & application process, depending on the number of eligible applications as per seat availability for the program. This entire process will be online.

PROGRAMME OBJECTIVES

To understand the core principles of cyber security, including threat analysis, risk management, and security protocols.

To master ethical hacking techniques such as penetration testing and vulnerability assessments to identify security weaknesses.

To gain expertise in cryptography, encryption methods, and secure communication channels to protect data integrity.

To develop advanced skills in network security, intrusion detection, and the use of firewalls to safeguard systems.

To acquire hands-on experience in performing penetration testing using industry-standard tools and techniques.

To specialize in cybersecurity through elective courses such as Cloud Security, Forensic Analysis, and Advanced Ethical Hacking.

To apply cybersecurity knowledge in real-world scenarios through minor, major, and capstone projects addressing actual security challenges.

To enhance knowledge of emerging technologies such as AI, IoT, and blockchain within the context of cybersecurity.

To explore advanced security techniques like Zero Trust Architecture and privacy-preserving data mining.

To gain practical skills in artificial intelligence and blockchain security to address new-age cyber threats.





PROGRAMME HIGHLIGHTS

Comprehensive Industry-Aligned Curriculum

Learn the latest in data science and analytics, including machine learning, big data technologies, and predictive modeling, ensuring relevance to modern industry demands.

Flexible Online Learning for Professionals

The fully online mode allows you to balance your work commitments while advancing your expertise, with live sessions and self-paced study options.

Expert Faculty and Industry Mentors

Gain insights from IIT Bhilai's distinguished faculty and experienced industry professionals, combining academic excellence with real-world expertise.

Prestige

Certification from one of India's most renowned institutions, boosting your professional credentials.

Career-Focused Outcomes

Equip yourself with in-demand data science skills and earn an IIT Bhilai certification, giving you a competitive edge and unlocking new career opportunities in the data-driven economy.

Virtual Instructor-Led Training

Learn through Virtual Instructor-Led Training (VILT)



CORE LEARNING OUTCOMES

-  **Solid Foundation in Cyber Security Concepts**
Gain a comprehensive understanding of the core principles of cybersecurity, including threat analysis, risk management, and security protocols.
-  **Proficiency in Ethical Hacking Techniques**
Develop the skills required for ethical hacking, penetration testing, and vulnerability assessments to identify and address security weaknesses in systems.
-  **Expertise in Cryptography and Network Security**
Master encryption methods and network security measures to protect data integrity, confidentiality, and secure communication channels.
-  **Advanced Knowledge in Network Security and Intrusion Detection**
Acquire advanced skills in detecting and preventing network intrusions, implementing firewalls, and intrusion detection systems (IDS) to safeguard organizational assets.
-  **Hands-On Experience in Penetration Testing**
Build practical knowledge in performing penetration testing and vulnerability assessments using industry-standard tools and techniques to simulate cyberattacks.
-  **Specialization in Cyber Security and Ethical Hacking**
Choose elective courses such as Cloud Security, Forensic Analysis, or Advanced Ethical Hacking Techniques to deepen expertise in specific areas of cybersecurity.
-  **Real-World Application of Cybersecurity Concepts**
Apply learned cybersecurity practices and ethical hacking skills through hands-on minor, major, and capstone projects that solve real-world cybersecurity challenges.



PROGRAM STRUCTURE

Sem	Course Code	Course Name	L-T-P-C	Credits	Course Category
I	CS601	Foundations of Cyber Security	3-0-0-3	3	Core
I	CS602	Ethical Hacking Essentials	3-0-0-3	3	Core
I	CS603	Cryptography and Network Security	3-0-0-3	3	Core
II	CS604	Advanced Network Security and Intrusion Detection	3-0-0-3	3	Core
II	CS605	Penetration Testing and Vulnerability Assessment	3-0-0-3	3	Core
II	CS6XX	Elective 1 (Cyber Security)	3-0-0-3	3	Elective
II	CS700	Capstone Project	0-0-8-4	4	Project (P)
III	CS6XX	Elective 2 (Ethical Hacking)	4-0-0-4	3	Elective
III	CS606	Elective 3 - (any group)	0-0-4-2	4	Project
III	CS6XX	Minor Project	0-0-4-2	2	Elective
IV	CS607	Major Project	0-0-12-6	6	Project
IV	CS6XX	Elective 4 - (any group)	3-0-0-3	3	Elective
IV		Campus immersion program / Elective	0-1-6-4	4	

Category	Course Code	Elective Courses	L-T-P-C	Credits
Cyber Security Electives	CS6XX	Cloud Security and Compliance	3-0-0-3	3
	CS6XX	Forensic Analysis and Incident Response	4-0-0-4	4
	CS6XX	Cyber Threat Intelligence	3-0-0-3	3
	CS6XX	Risk Management in Cyber Security	3-0-0-3	3
Ethical Hacking Electives	CS6XX	Advanced Ethical Hacking Techniques	3-0-0-3	3
	CS6XX	Social Engineering and Countermeasures	2-0-0-2	2
	CS6XX	Malware Analysis and Reverse Engineering	4-0-0-4	4
	CS6XX	Red Teaming Operations	3-0-0-3	3
Emerging Security Technologies	CS6XX	Artificial Intelligence in Cyber Security	3-0-0-3	3
	CS6XX	Blockchain Security	3-0-0-3	3
	CS6XX	Internet of Things (IoT) Security	4-0-0-4	4
	CS6XX	Quantum Cryptography	3-0-0-3	3
Advanced Security Techniques	CS6XX	Secure Software Development Lifecycle	3-0-0-3	3
	CS6XX	Zero Trust Architecture	3-0-0-3	3
	CS6XX	Privacy-Preserving Data Mining	3-0-0-3	3
	CS6XX	Advanced Threat Modeling	4-0-0-4	4

Program Elective and Open Elective courses, along with their credits, are tentative and subject to change

PROGRAM ADMISSION JOURNEY



STEP 1:

Fill up an online application form, upload the required documents and submit application



STEP 2:

Make the application payment



STEP 3:

Shortlisting based on work, and education profile



STEP 4:

If shortlisted, you will receive an offer letter from IIT Bhilai



STEP 5:

Pay admission confirmation fee within 7 days of receiving the offer letter

Note: The application fee once paid is not refundable. IIT Bhilai reserves the right to conduct the admissions process. By submitting the application, the students agree that any decision regarding Admissions from IIT Bhilai will be final and binding.

Fee Structure

Executive MTech in Cyber Security & Ethical Hacking

Application Fee (Non-Refundable)	₹ 5,000/-			
Fees	Instalment 1	Instalment 2	Instalment 3	Instalment 4
	₹ 1,00,000/-	₹ 1,00,000/-	₹ 1,00,000/-	₹ 1,00,000/-
Total Fees	₹ 4,05,000/-			

Cancellation & Fee Refund Policy:

➤➤ Application Fee: Non-refundable.

➤➤ Course Fee Refund:

A refund of 90% of the paid course fee will be issued if a request is raised before the Batch commencement date.

No refund will be provided on or after the batch commencement date.

क्रम सं./Serial No. 2022/0014

अनुक्रमांक सं./ID No. 12010230

भारतीय प्रौद्योगिकी संस्थान भिलाई
शिक्षा परिषद की अनुशंसा पर एवं पाठ्यक्रम की निर्धारित
अर्हताओं एवं शोध को सफलतापूर्वक पूर्ण करने पर
XYZ शर्मा

को

साइबर सुरक्षा और नैतिक हैकिंग में
कार्यकारी मास्टर ऑफ टेक्नोलॉजी

की उपाधि प्रदान करता है।

संस्थान द्वारा मुद्रांकित यह उपाधि दिनांक अठारह जून दो हजार बाईस
को प्रदान की गई।



INDIAN INSTITUTE OF TECHNOLOGY BHILAI

upon the recommendation of the Senate hereby confers

XYZ Sharma

With the degree of

Executive MTech in

Cyber Security & Ethical Hacking

for successfully completing the prescribed program study
and presenting the thesis.

Given this day the Eighteenth of June, Two Thousand Twenty Two
under the seal of the Institute.

Digitally Signed by
Dr. Jayesh Chandra, The
Registrar of IIT Bhilai

कुलसचिव
Registrar

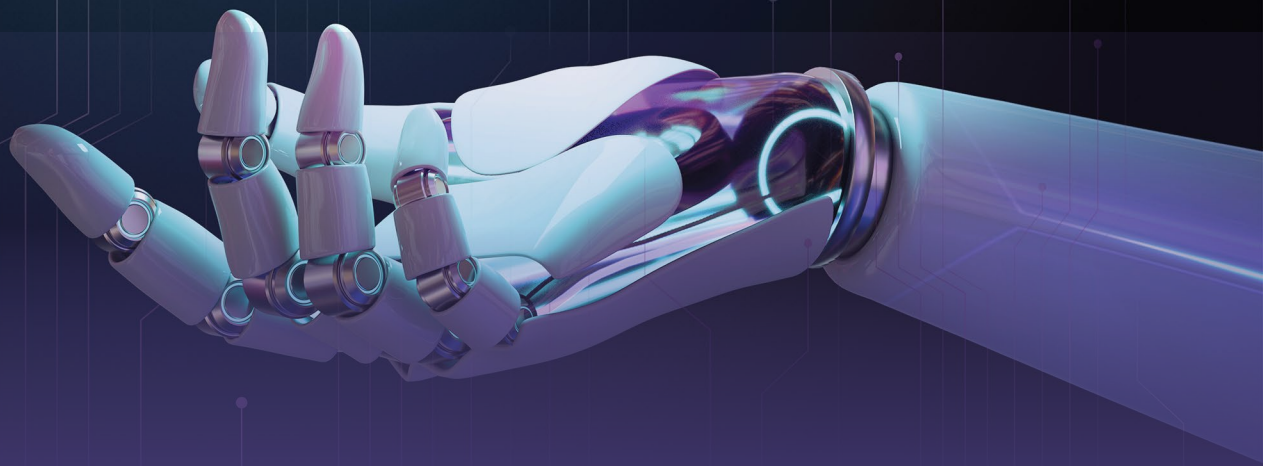
Digitally Signed by
Prof. Rajat Mishra,
Director of IIT Bhilai

अध्यक्ष, शिक्षा परिषद
Chairman, Senate

Digitally Signed by
A. Venkateshwarrao,
Director, IIT Bhilai

अध्यक्ष, संचालक मंडल
Chairman, Board of Governors





Get In Touch With Us

For registration and any other information please get in touch with us at admission.iitbhilai@digiversity.com

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