



Indian Institute of Information
Technology Vadodara (IIIT Vadodara)

M.Tech CyberSecurity

Type

Pg Program

Mode

Online

Duration

2 Years

Total fees

₹ 370,100

Indian Institute of Information Technology Vadodara (IIIT Vadodara)

Established in 2013 by the Ministry of Education, Government of India, IIIT Vadodara is an Institute of National Importance committed to advancing education, research and innovation in information technology. Founded through a Public-Private Partnership, the institute brings together government and industry expertise to develop globally competent technology professionals. Its academic environment emphasises interdisciplinary learning, technical excellence, practical problem-solving and the application of emerging technologies to real-world challenges.

M.Tech CyberSecurity

Highlights

- ◆ Earn an M.Tech degree in Cyber Security from IIIT Vadodara, an Institute of National Importance.
- ◆ Build expertise across network security, applied cryptography, VAPT, secure programming and endpoint security.
- ◆ Choose specialised electives across offensive security, threat intelligence, defensive security and governance.
- ◆ Apply learning through practical security labs, assessments and a final research project or dissertation.
- ◆ Learn through a professional-friendly format and gain IIIT Vadodara alumni status upon successful completion.

Learning outcomes

- ◆ Design secure enterprise systems by applying cybersecurity, network-defence and access-control principles.
- ◆ Identify and exploit vulnerabilities through structured assessment and penetration-testing methodologies.
- ◆ Use AI, Machine Learning and security analytics to detect threats, anomalies and suspicious behaviour.
- ◆ Apply cryptographic techniques to protect data, applications and digital communications.
- ◆ Develop incident-response, threat-intelligence and governance strategies for complex organisational environments.

Eligibility Criteria

Applicants must hold a B.E./B.Tech. in Engineering or an MCA/MSc (in Physics, Mathematics, Statistics, CS, IT, DS, or related fields) or an equivalent degree.

A minimum of 60% or a 6.0 CPI on a 10-point scale (or equivalent) in the qualifying degree is required.

The program is designed for working professionals, and while specific work experience requirements may vary, a background in the IT industry is highly recommended.

Marks will be relaxed by 2.5% or 0.5 CGPA or CPI against each additional year of experience.



Curriculum Overview (continued)

Semester I (31 subjects)

- ◆ Foundations of Cyber Security
- ◆ Core principles of cybersecurity
- ◆ Cyber threats and common attack vectors
- ◆ Security controls and defence mechanisms
- ◆ Enterprise-security foundations
- ◆ Cyber-risk awareness
- ◆ Computer Networks & Communication Protocols
- ◆ Computer-network fundamentals
- ◆ Network architectures and models
- ◆ Communication protocols
- ◆ Routing and data transmission
- ◆ Network monitoring and analysis
- ◆ Network Security & Firewalls
- ◆ Network-security principles
- ◆ Firewalls and security gateways
- ◆ Intrusion detection and prevention
- ◆ Secure network configuration
- ◆ Network-threat mitigation
- ◆ Secure Programming & Code Analysis
- ◆ Secure software-development practices
- ◆ Common programming vulnerabilities
- ◆ Static and dynamic code analysis
- ◆ Secure coding standards
- ◆ Application-security testing
- ◆ Cyber Laws
- ◆ Ethics & Compliance
- ◆ Cyber laws and regulations
- ◆ Information-technology legislation
- ◆ Privacy and data-protection requirements
- ◆ Ethical considerations in cybersecurity
- ◆ Organisational compliance practices



Curriculum Overview (continued)

Semester II (30 subjects)

- ◆ Applied Cryptography
- ◆ Cryptographic principles
- ◆ Symmetric and asymmetric encryption
- ◆ Hashing and digital signatures
- ◆ Key-management practices
- ◆ Cryptographic applications
- ◆ Operating System & Endpoint Security
- ◆ Operating-system security
- ◆ Endpoint protection
- ◆ Identity and access controls
- ◆ System hardening
- ◆ Endpoint-threat detection
- ◆ Vulnerability Assessment and Penetration Testing
- ◆ Vulnerability identification
- ◆ Security scanning and assessment
- ◆ Penetration-testing methodologies
- ◆ Exploitation and post-exploitation
- ◆ Security reporting and remediation
- ◆ AI & ML for Cyber Security
- ◆ Artificial Intelligence in cybersecurity
- ◆ Machine Learning-based threat detection
- ◆ Malware and anomaly classification
- ◆ Behavioural analytics
- ◆ AI-enabled cyber defence
- ◆ Data Science for Security Analytics
- ◆ Security-data collection and processing
- ◆ Log and event analysis
- ◆ Statistical security analytics
- ◆ Threat-data visualisation
- ◆ Data-driven security decision-making



Curriculum Overview (continued)

Semester III (3 subjects)

- ◆ Elective-1
 - ◆ Elective-2
 - ◆ Project Work / Research + Dissertation
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Semester IV (3 subjects)

- ◆ Elective-3
- ◆ Elective-4
- ◆ Project Work / Research + Dissertation



Curriculum Overview (continued)

Elective Pool (19 subjects)

- ◆ Offensive Security & Threat Intelligence
- ◆ Malware Analysis & Reverse Engineering
- ◆ Network Exploitation and Forensics
- ◆ Wireless & IOT Security
- ◆ Web and Mobile Application Exploitation
- ◆ Advanced Penetration Testing and Exploit Development
- ◆ Digital Forensics & Incident Response
- ◆ Advanced Threat Intelligence and Hunting
- ◆ Application Security Testing (DAST/SAST)
- ◆ Defensive Security & Governance
- ◆ Risk and Compliance
- ◆ Security Operations Centre Management
- ◆ Threat Hunting & Deception Technologies
- ◆ Cloud-Native Security Operations & Resilience
- ◆ Information Security Risk Management
- ◆ Security Auditing & Compliance Frameworks
- ◆ Identity and Access Management
- ◆ Data Loss Prevention
- ◆ Third-Party Risk Management

Fee Structure

Fee heads	Year 1	Year 2	Total
Institute Registration Fees	₹ 2,000	₹ 2,000	₹ 4,000
Tuition Fee	₹ 170,000	₹ 170,000	₹ 340,000
Caution Deposit (Refundable)	₹ 10,000	—	₹ 10,000
Academic Charges Inc (Convocation Fee, Alumni Fee, Insurance, ID card Fee)	₹ 5,600	₹ 5,500	₹ 11,100
Campus Immersion Fee	₹ 5,000	—	₹ 5,000
Total	₹ 192,600	₹ 177,500	₹ 370,100