



**GRAS**tech

## **Six Week Summer Internship**

**on**

## **Cyber Security**

**(Blended Mode)**

**With Cisco Certification**

**1<sup>st</sup> June–30<sup>th</sup> June 2024**

*(Internship Duration)*

**1<sup>st</sup> July–30<sup>th</sup> July 2024**

*(Project Duration)*

**Organized by**

**GRAS**tech and Department of IT

**Indira Gandhi Delhi Technical University for Women**

**Patron**

**Dr (Mrs.) Amita Dev, Hon'ble Vice Chancellor, IGDTUW**

**Organizing Committee**

**Prof. A K Mohapatra, HoD(IT), IGDTUW**

**Dr. Jyoti Shokeen, Assistant Professor, Co-ordinator**

**Mr. Sudhir Singh, Assistant Professor, Co-ordinator**

**Ms. Deepika Suhag, Assistant Professor, Co-ordinator**

## Cisco Certified Support Technician (CCST): Cybersecurity

### Introduction to Ethical Hacking

- Information Security Overview
- Information Security Threats and Attack Vectors
- Hacking Concepts
- Ethical Hacking Concepts
- Information Security Controls
- Penetration Testing Concepts
- Information Security Laws and Standards

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### Footprinting and Reconnaissance

- Footprinting Concepts
- Footprinting through Search Engines
- Footprinting through Web Services
- Footprinting through Social Networking Sites
- Website Footprinting
- Email Footprinting
- Competitive Intelligence
- Whois Footprinting
- DNS Footprinting
- Network Footprinting
- Footprinting through Social Engineering
- Footprinting Tools
- Footprinting Countermeasures
- Footprinting Penetration testing

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### Scanning Networks

- Network Scanning Concepts
- Scanning Tools
- Scanning Techniques
- Scanning Beyond IDS and Firewall
- Banner Grabbing
- Draw Network Diagrams
- Scanning Pen Testing

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### Enumeration

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- Enumeration Concepts
  - NetBIOs Enumeration
  - SNMP Enumeration
  - LDAP Enumeration
  - NTP Enumeration
  - SMTP and DNS Enumeration
  - Other Enumeration Techniques
  - Enumeration Countermeasures
  - Enumeration Pen Testing
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## **Vulnerability Analysis**

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- Vulnerability Assessment Concepts
  - Vulnerability Assessment Solutions
  - Vulnerability Scoring Systems
  - Vulnerability Assessment Tools
  - Vulnerability Assessment Reports
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## **System Hacking**

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- System Hacking Concepts
  - Cracking Passwords
  - Escalating Privileges
  - Executing Applications
  - Hiding Files
  - Covering Tracks
  - Penetration Testing
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## **Malware Threats**

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- Malware Concepts
  - Trojan Concepts
  - Virus and Worm Concepts
  - Malware Analysis
  - Countermeasures
  - Antimalware Software
  - Malware Penetration Testing
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## **Sniffing**

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- Sniffing Concepts
  - Sniffing Technique: MAC Attacks
  - Sniffing Technique: DHCP Attacks
  - Sniffing Technique: ARP Poisoning
  - Sniffing Technique: Spoofing Attacks
  - Sniffing Technique: DNS Poisoning
  - Sniffing Tools
  - Countermeasures
  - Sniffing Detection Techniques
  - Sniffing Pen Testing
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## **Social Engineering**

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- Social Engineering Concepts
  - Social Engineering Techniques
  - Insider Threats
  - Impersonation on Social Networking Sites
  - Identity Theft
  - Countermeasures
  - Social Engineering Pen Testing

### **Denial-of-Service**

- Dos/DDos Concepts
- Dos/DDoS Attack Techniques
- Botnets
- DDoS Case Study
- DoS/DDoS Attack Tools
- Countermeasures
- DoS/DDoS Protection Tools
- DoS/DDoS Penetration Testing

### **Session Hijacking**

- Session Hijacking Concepts
- Application Level Session Hijacking
- Network Level Session Hijacking
- Session Hijacking Tools

### **Evading IDS, Firewalls, and Honeypots**

- IDS, Firewall and Honeypot Solutions
- IDS, Firewall and Honeypot Concepts
- Evading IDS
- Evading Firewalls
- IDS/Firewall Evading Tools
- Detecting Honeypots
- IDS/Firewall Evasion Countermeasures
- Penetration Testing

### **Hacking Web Servers**

- Web Server Concepts
  - Web Server Attacks
  - Web Server Attack Methodology
  - Web Server Attack Tools
  - Countermeasures
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- Patch Management
  - Web Server Security Tools
  - Web Server Pen Testing

### **Hacking Web Applications**

- Web App Concepts
- Web App nreats
- Hacking Methodology
- Web App Hacking Tools
- Countermeasures
- Web App Security Testing Tools
- Web App Pen Testing

### **SQL Injection**

- SQL Injection Concepts
- Types of SQL Injection
- SQL Injection Methodology
- SQL Injection Tools
- Evasion Techniques
- Countermeasures

### **Hacking Wireless Networks**

- Wireless Concepts
- Wireless Encryption
- Wireless Threats
- Wireless Hacking Methodology
- Wireless Hacking Tools
- Bluetooth Hacking
- Countermeasures
- Wireless Security Tools
- Wireless Pen Testing

### **Hacking Mobile Platforms**

- Mobile Platform Attack Vectors
- Hacking Android OS
- Hacking iOS
- Mobile Spyware
- Mobile Device Management
- Mobile Security Guidelines and Tools
- Mobile Pen Testing

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## IoT Hacking

- IoT Concepts
- IoT Attacks
- IoT Hacking Methodology
- IoT Hacking Tools
- Countermeasures
- IoT Pen Testing

## Cloud Computing

- Cloud Computing Concepts
- Cloud Computing Threats
- Cloud Computing Attacks
- Cloud Security
- Cloud Security Tools
- Cloud Penetration Testing

## Cryptography

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- Cryptography Concepts
- Encryption Algorithms
- Cryptography Tools
- Public Key Infrastructure (PKI)
- Email Encryption
- Disk Encryption
- Cryptanalysis
- Countermeasures

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## Certification- Cisco Certified Support Technician (CCST): Cybersecurity

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## Description

Are you looking to kickstart your career in cybersecurity? Our **Cisco Certified Support Technician: Cybersecurity (CCST)** course is specifically designed for entry-level technicians, students, interns, and IT professionals seeking to delve into the world of network and security. **Hands-on experience with Cisco routers, switches, and access points** will equip you with the real-world skills needed to protect digital assets. This course is an entry point into the Cisco Certified program. We will explore essential security principles, threats, vulnerabilities, access management principles, encryption methods, basic network security concepts, endpoint security, vulnerability assessment, risk management, incident handling, and more

This course covers:

- **Essential Security Principles:** Grasp the foundations of cybersecurity, including the understanding of vulnerabilities, threats, and ethical considerations.

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**Corporate Office:** - D-26,1<sup>st</sup> Floor, Sector-3, Noida-201301 Ph.-0120-4145920

**Registered Office:** - F0, Ground Floor, The Mira Corporate Suites, Plot No.1&2, Ishwar Nagar, New Delhi-110065

**Web:** - [www.grastech.in](http://www.grastech.in)

- **Basic Network Security Concepts:** Learn about TCP/IP vulnerabilities, network addresses, and the ins and outs of network security architecture.
- **Endpoint Security Concepts:** Explore operating system security, endpoint tools, system logs interpretation, and malware removal techniques.
- **Vulnerability Assessment and Risk Management:** Discover how to identify and manage vulnerabilities, assess risks, and plan for disaster recovery.
- **Incident Handling:** Develop skills in monitoring security events, understanding digital forensics, compliance frameworks, and cybersecurity incident response.

By the end of this course, participants will be ready to take the Cisco Certified Support Technician: Cybersecurity exam and will be qualified work-ready cybersecurity technicians.

Join now!

## Who this course is for:

- Entry-level cyber security technicians
- IT students and interns
- IT professionals seeking to expand into cyber security
- Individuals aiming for Cisco's CyberOps certification

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## Resource Persons

Experts from Industry with vast experience in the area of Cyber Security are invited to deliver the lectures.

## Who can Apply

Internship is open to B.Tech. and MCA students.

## How to Apply

Interested candidates should fill the online registration form latest by [30.05.2024 by 05:00pm](https://forms.gle/CgDeFoJq7yhuzNv37) at the following link:

<https://forms.gle/CgDeFoJq7yhuzNv37>

IGDTUW Students have to pay an amount of 5500/- in which 1000/- have to be paid as registration fees in the account of IGDTUW and the remaining 4500/- to be paid in the account of GRAS<sup>te</sup>ch\* after 7<sup>th</sup> June, 2024.

For outside IGDTUW students The fees is 6500/- (2000/- as registration fees and 4500/- as examination fees)

## Registration Fee:

Rs1000/- (in account of IGDTUW for IGDTUW students)

Rs2000/- (in account of IGDTUW for Outside IGDTUW Students)

Rs 4500/- (in account of GRAS<sup>te</sup>ch)(Students have to pay the fee of 4500/- after 7<sup>th</sup> June, 2024)

## **Bank details for Registration Fee in Account of IGDTUW**

Name and Beneficiary: Registrar, IGDTU for WOMEN

Bank Account Number: 09001000018949

IFSC Code: PSIB0001098

Name & Address of Bank Branch: Punjab and Sind Bank, GGSIPU,  
Kashmere Gate, Delhi 110006

## **Bank details for Registration Fee in Account of GRAS<sup>te</sup>ch**

Name and Beneficiary: GRAS Education & Training Services Pvt. Ltd.

Bank Account Number : 50200077724907

IFSC Code: HDFC0001351

Name & Address of Bank Branch: HDFC Bank Ltd B-222-223,  
SECTOR-16, NOIDA-201301

*\* It is kindly requested to make both payments in the respective account for internship and examination*



## **Certificate**

Upon successful completion of the Internship, students have to qualify for the examination after which they will be awarded with Cisco Certification.

## **ContactUs**

For any Query, please write to [hodit@igdtuw.ac.in](mailto:hodit@igdtuw.ac.in)

### **About the University**

Indira Gandhi Delhi Technical University for Women (IGDTUW) is a State University of Government of Delhi. The University facilitates and promotes studies, research, technology, innovation, incubation, and extension work in emerging areas of professional education among women. The objective of the University is to foster industry relevant research and innovations and empower the women of our country through value based higher education making them employable, self-reliant, responsible citizen of the country.

### **About the Department**

Department of IT aims to prepare students to undertake careers involving innovation and problem-solving using IT, or to undertake advanced studies for research careers in IT. The department has established its expertise in the emerging areas like Cyber Security, Machine Learning, Big Data Analytics, Software Development and Cryptography to name a few.