



# Online Winter Faculty Development Programme Cyber security (Dark Web)

January 20 - 31, 2025 : Online live streaming

Jointly Organized by

NIT Patna



IIITDM Jabalpur



IIT Roorkee



MNIT Jaipur



IIT Guwahati



## Schedule and Course Contents

[January 20 - 31, 2025, 9-11, 16 to 18 hours]

- Overview of Cyber Security and Security Fundamentals - Basic Cryptography and its importance in Cyber security, Cryptography Hash functions
- Analysis of different attacks with hands-on DNS Scanning, Port Scanning, Phishing, Command Injection, SQL Injection, XSS
- AI and ML for Cyber Security
- Web Security - SQL injection, XSS, CSRF, etc. Web App Penetration Testing, Cloud Security and Forensics - Data security in cloud, Big data and cyber security
- Network Security - DNS, ICMP, ARP attacks, IP Sec, BGP Sec, etc., Browser based attacks
- Software Security - Buffer overflow, Integer overflow, Format string vulnerabilities
- Applications of Cyber Security Mechanisms, Cyber Security Assurance and Law, Cyber Forensics
- System Hacking, Enumeration and vulnerability Scanning
- Multimedia Forensics
- Security over IoT, Blockchain based IOT Security
- Some optional topics-
- IDS- Intrusion Detection System
- Wireless Vulnerabilities - 802.11 Wireless Vulnerabilities, Hacking Wi-Fi networks By Passing Windows logon system
- Security Tools - DVWA, Snort, Metasploit, Wireshark, NMAP, Nessus, Openssl, etc.

### Coordinators

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### RESOURCE PERSONS

- Dr. Mayank Swarnkar (IIT BHU),
- Dr. Mayank Agrawal (IIT Patna)
- Prof. K. V. Arya (ABV-IIITM Gwalior),
- Dr. Neelam Dayal (IIITDM Jabalpur),
- Prof. Somnath Tripathi (IIT Patna),
- Dr. Ramesh B. Battula (MNIT Jaipur),
- Dr. Emmanuel S. Pilli (MNIT Jaipur)

### Registration Details

**Registration link** – Please fill in the registration form using the following link:

<https://forms.gle/HNP4gkiBxVJbo9Ew9>

**Registration fee:** INR 500/-

**Last Date for Registration:** January 18, 2025

**Online payment details:**

- Internet banking**

Beneficiary Name: PDPM IIITDM Jabalpur

Bank Name: INDIAN BANK

A/C No. : 50018692852

IFSC Code: IDIB000M694

- UPI ID:** iiitdmj@indianbk

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### Contact Details

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