MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY
इलेक्ट्रॉनिकी एवं सूचना प्रौद्योगिकी मंत्रालय
सत्यमेव जयते

Information Security Education and Awareness (ISEA) Phase-III
Sponsored
One Week Short Term Course
On

Recent Trends in Computer & Network Security (CoNSec-2024)

(18.12.2024 – 22.12.2024)

Hybrid Mode

Organized By

Department of Computer Engineering
National Institute of Technology
Kurukshetra-136119, Haryana, India

ABOUT ISEA Phase-III

The Ministry of Electronics and Information Security (MeitY) has approved the project entitled 'Information Security Education and Awareness (ISEA) Project Phase-III' towards human resources development for safe, trusted, and secure cyberspace. It aims to create a robust training & certification mechanism for CISOs, Deputy CISOs, and Associate teams of CISOs/Aspirants, groom students towards products/solutions development through ideation & innovation activities, advance research & education in emerging/futuristic areas of Information Security, and build cyber-aware digital naagriks through mass awareness.

ABOUT NIT KURUKSHETRA

NIT Kurukshetra, formerly known as Regional Engineering College, Kurukshetra was founded in 1963. It was conferred upon the NIT status, with Deemed University on June 26, 2002.

The Institute offers several courses, in various disciplines of BTech, MTech, MBA, MCA, and PhD with an annual intake of about 1500 students. The institute also provides excellent facilities for advanced research in the emerging areas of Engineering, Science, and Technology. The institute has well-qualified and dedicated faculty along with supporting staff, laboratories, and other infrastructure. The infrastructure is geared to enable the institute to produce technical personnel of high quality.

ABOUT THE DEPARTMENT

The Department of Computer Engineering started in 1987 with the aim to equip students with the necessary skills to navigate the dynamic landscape of IT requirements preparing for the future. The department is well equipped with state-of-the-art laboratories of all major domains of Computer Engineering and Information Technology. The department is equally active in research with many quality publications each year in IEEE, ScienceDirect, ACM, Springer, Wiley, etc. For the overall development, the department also covers the other aspects of life like Health management, moral and ethical development of the students.

OBJECTIVES OF THE STC

The STC aims to provide the participants with theoretical and practical knowledge essential for securing modern digital infrastructures. It provides the knowledge of various tools and techniques that are used to build robust, efficient, and secure applications. It covers the latest advancements in cybersecurity technologies, including advanced threat detection systems, encryption techniques, and secure network design principles. It would enable the participants to effectively recognize and mitigate contemporary security threats. The participants will be engaged in practical exercises that simulate real-world security challenges, enabling them to apply theoretical concepts in a controlled environment.

TENTATIVE CONTENTS

- **Introduction:** Key concepts and basic terminology in computer and network security, CIA Triad, Authentication, and Authorization.
- **Cryptography:** Overview of Cryptography, Symmetric and Asymmetric Encryption.
- **Threat Detection:** Security Threats, Detection and mitigation mechanisms, overview of IDS and IPS.
- **AI/ML for Security:** Overview of AI/ML, Applications of AI/ML in Security, Linear Regression, Logistic Regression, Basic Classification Techniques.
- **Emerging Trends:** Zero Trust Architecture, Cloud security.
- **Lab Session:** Packet analysis using Wireshark, Spam Detection, Malware Analysis, Phishing Detection, Vulnerability Analysis, DoS Detection using ML, etc.

ABOUT KURUKSHETRA

Kurukshetra is popularly known for its historical and religious importance. Here, the battle of Mahabharata was fought, and Lord Shree Krishna delivered the divine. Kurukshetra is very well connected by Rail, Delhi- Ambala section, by Road (NH1) and by Air (Delhi 160 km and Chandigarh 80 km). The NIT Kurukshetra campus is situated about 10 km from Pipli, Bus stand located on NH1 and about 4 km from Kurukshetra railway station.

TARGET AUDIENCE

- The STC is open for UG and PG students only.

REGISTRATION FEE

- There is **NO REGISTRATION FEE.**
- Only limited seats (50) are available in this course. Availability of funds will be taken into consideration while selecting candidates.
- No TA/DA will be provided to attend this course.
- Limited accommodations are available in the Institute Guest House/Hostel on a **payment basis**. Concerned participants can request for booking in advance by contacting course coordinators through email.
- The STC will happen in **HYBRID MODE**, physically at the Department of Computer Engineering, NIT Kurukshetra, and through Google Meet virtually.

IMPORTANT DATES

Last date for Registration: **10 December 2024**

Confirmation to the participants (by email): **11 December 2024**

Certificates will be provided to all the participants.

HOW TO APPLY

To apply for the STC, Register through:

https://forms.gle/4zVEoqo1RP4UhB5D9

Alternatively, scan here for Registration:

ORGANIZING COMMITTEE

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