

About Anna University

Anna University was established on 4th September 1978 as unitary type of University. Its constituent colleges are College of Engineering, Madras Institute of Technology, Alagappa College of Technology and School of Architecture and Planning. Anna University has a strong vision to impart excellence in education, research and societal service through highly dedicated and competent teachers who are also expert researchers in various emerging and cutting edge technologies.

About College of Engineering Guindy and the Departments

CEG is India's oldest engineering and technical institution established in 1794. The Department of Computer Science and Engineering (DCSE) and Department of Information Science and Technology (DIST) provide world-class training and research opportunities, supported by state-of-the-art computing facilities. They foster active industry-institute collaboration by engaging in sponsored research projects and consultancy services, addressing real-world challenges. To advance expertise in the critical domain of Cyber Security, DCSE has established the Centre for Cyber Security, promoting research, development, and specialized courses for various stakeholders. These initiatives enable students to excel academically and contribute to innovation and technological advancements.

About ISEA

Information Security Education and Awareness (ISEA) is an initiative of Ministry of Electronics and Information Technology (MeitY), Government of India for generating human resources in the area of Information Security and creating general awareness on Cyber Hygiene/Cyber Security among the masses. The initiative focuses on building capacity in Information Security to meet the nation's growing demand for skilled professionals and strengthen its defense against cyber threats.

ORGANIZING COMMITTEE

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Registrar, Anna University

CO-PATRON

Dr.P.HARIHARAN
Dean, CEG, Anna University

CONVENERS

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HoD, DCSE, Anna University

&

Dr. S. SWAMYNATHAN
HoD, DIST, Anna University

COORDINATORS

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Dr. D. Shiloah Elizabeth, Asst. Prof (Sl. Gr.), DCSE
Dr. C. Balaji, Asst. Prof., DCSE
Dr. P. Mohamed Fathimal, Asst. Prof., DCSE



INFORMATION SECURITY EDUCATION & AWARENESS (ISEA) PHASE III PROJECT

Organizes

One Day Workshop

on

MEMORY-BASED ATTACKS AND MODERN EXPLOIT TECHNIQUES

on

14th February 2026



Contact Us

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About the Workshop

This one-day workshop introduces low-level system security, focusing on how memory vulnerabilities are created, exploited, and defended in real-world systems. Through structured lectures and live demonstrations, participants will explore debugging, exploitation, and mitigation techniques in Linux environments. The program blends theory with practice using industry-standard tools such as GDB, Wireshark, and AFL enabling students to understand both offensive and defensive perspectives of cyber security in a controlled ethical setting.

Speakers:

Notable speakers from INDUSTRIES and ANNA UNIVERSITY

Topics to be covered:

- Memory management in Linux
- GDB-based reverse engineering
- Buffer overflow and format string attacks
- ELF format and system calls
- Shellcode and code injection
- GOT and stack/heap attacks
- DEP, ASLR, stack canaries
- SQL injection and ROP
- Fuzzing with AFL/libFuzzer
- ARP poisoning and Wireshark analysis

Outcomes:

After successful completion of the workshop, the participants will be able to:

- Explain the principles of memory management, ELF structure, and program execution in Linux-based systems.
- Analyze vulnerable programs using GDB and identify memory-based security weaknesses such as buffer overflow and format string vulnerabilities.
- Demonstrate basic exploitation techniques including buffer overflow, Return-Oriented

Programming (ROP), and SQL injection in a controlled ethical environment.

- Apply security tools such as AFL/libFuzzer, arpspoof, and Wireshark to test, analyze, and understand attacks and defences, including ASLR, DEP, and stack canaries.

Instructions:

- No Registration Fee
- Faculty members, Research Scholars and PG/UG students from Engineering Colleges, Government officials and Industry personnel.
- Participants will be selected on a first-come, first-served basis. Selected candidates will be informed by email, and confirmation by the participants has to be sent by e-mail only.
- Registration for the Workshop should be done using the registration link, and a signed copy of the registration form (PDF format only) should be uploaded.

Registration Link: (Scan the QR for the Link)

<https://isea.app/event.php/IVP20260212VEDT>



Venue: (Scan the QR for the Location)

New Auditorium, ACTECH Campus
Anna University
Chennai - 600025



One Day Workshop

on

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14th February 2026

REGISTRATION FORM *

1. Name : _____
2. Register No : _____
3. Semester : _____
4. Designation : Faculty / Research Scholar/ Student
5. Institution / Organization: _____
6. Communication Address: _____
7. Mobile Number : _____
8. Email id : _____
9. Aadhar Number: _____

DECLARATION

The information provided by me is true to the best of my knowledge. I agree to abide by the rules and regulations governing the Workshop. I shall attend the Workshop for the entire duration. I also undertake the responsibility to inform the coordinators in advance in case I am unable to attend the course.

Date: _____

Place: _____

Signature of the Applicant

AUTHORIZATION CERTIFICATE

This is to certify that _____ is a regular Employee / Research scholar of our institution and is hereby permitted to attend the one day Workshop.

Date: _____

Place: _____

Signature of the HOD/ Principal with Seal

* Authorized and uploaded Registration Forms alone will be considered for participation confirmation.