



One Week Boot Camp on

Mastering Software Security and Vulnerability Assessment

Sponsored by ISEA Phase 3 Under Systems & Software Security

Hybrid Mode 2025, Online (Dec 12-14) & Offline (Dec 19-21)

Organized by IIITDM Kancheepuram, Chennai-600 127



Venue	Hybrid Mode	About US: http://web.iiitdm.ac.in/noor/
Objective	The bootcamp on Mastering Software Security and Vulnerability Assessment is an intensive, hands-on program designed to equip participants with the skills needed to build, test, and maintain secure software applications. It provides practical training in secure coding practices, vulnerability identification, security testing methodologies, and adherence to modern security standards. Participants will gain a deep understanding of the Secure Development Lifecycle, learn to implement secure coding standards, perform static and dynamic security testing, and develop the ability to respond effectively to security incidents, preparing them to proactively safeguard software systems in real-world environments.	
Topics to be Covered	• Web Application Security • Software Vulnerabilities & Exploitation • Cryptography & Secure Design • Secure Configuration & Hardening • Static Code Analysis & Secure SDLC Tools • Dynamic Analysis & Runtime Testing • Memory Safety & Fuzzing Techniques • Vulnerability Assessment & Scanning Frameworks • Runtime Security Monitoring & Threat Detection • Serialization & Data Handling Security • Binary Analysis & Integrity Verification • Kernel Integrity • Reverse Engineering & Debugging Techniques	
Target Audience	B. Tech/M. Tech/MCA/BCA/MSc/BSc and PhD Students working in the area of Cyber Security and Programming.	
Prerequisite	Participant should have the basic working knowledge of Python Programming or any other.	
Registration Details	Registration Link: https://forms.gle/Dd6ae2bKTvBLSMMk7	
Registration Fees	NIL (Recommendation Letter and approval from HOD/Dean/Principal/Director in the prescribed form is necessary to confirm your registration)	
Payment	NIL (for Registration, Hostel Accommodation, lunch, and snacks are included for 3 Days (Offline Sessions)) 60 Seats Only for Both Session.	
Contact Info:	Dr Noor Mohammad Sk, Organizing Chair (http://web.iiitdm.ac.in/noor/) Dr Sanjeet Kumar Nayak, Co-Organizing Chair (Physical Mode Boot Camp) Dr B Krishna Priya, Co-Organizing Chair (Online Mode Boot Camp) Dr Amlan Joseph Antony, Co-Organizing Chair (Program) Indian Institute of Information Technology, Design and Manufacturing (IIITDM) Kancheepuram Melakottaiyur, Vandalur - Kelambakkam Road, Chennai - 600 127, Tamil Nadu, India. For enquiry and clarification, please contact: Email: noor@iiitdm.ac.in ; 91760 10587(M)	

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Time (Hrs)		Topic	
Online Sessions (Dec 12-14)			
DAY 1	12 DEC 2025 FRI	0930-1100	Boot Camp Orientation
		1115-1230	Software Installations and Configuration
		1400-1530	Hands-On Session 1: Injection Attacks
		1530-1700	Hands-On Session 2: Overflow Attacks
DAY 2	13 DEC 2025 SAT	0930-1100	Hands-On Session 3: Cryptographic Failures
		1115-1230	Hands-On Session 4: Security Misconfigurations
		1400-1530	Hands-On Session 5: Broken Authentication & Session Management
		1530-1700	Hands-On Session 6: Insecure Direct Object Reference (IDOR)
DAY 3	14 DEC 2025 SUN	0930-1100	Hands-On Session 7: Web Server related vulnerabilities
		1115-1230	Hands-On Session 8: Web Client related vulnerabilities
		1400-1530	Hands-On Session 9: Insecure Deserialization
		1530-1700	Hands-On Session10: Cross-Site Scripting
Offline Sessions (Dec 19-21)			
DAY 4	19 DEC 2025 FRI	0930-1100	Hands-On Session 11: Static vulnerability analysis tool
		1115-1230	Hands-On Session 12: Dynamic vulnerability analysis tool
		1400-1530	Hands-On Session 13: Memory related bug detector (static)
		1530-1700	Hands-On Session 14: Memory related bug detector (dynamic and fuzzing)
DAY 5	20 DEC 2025 SAT	0930-1100	Hands-On Session 15: Vulnerability Assessment tool (Nuclei)
		1115-1230	Hands-On Session 16: Runtime Security & Behavioral Detection (Falco)
		1400-1530	Hands-On Session 17: Container and Package Vulnerability Scanning (Grype)
		1530-1700	Hands-On Session 18: Binary Integrity & Control-Flow Graph Monitoring
DAY 6	21 DEC 2025 SUN	0930-1100	Hands-On Session 19: Kernel Module Integrity Monitoring - I
		1115-1230	Hands-On Session 20: Kernel Module Integrity Monitoring - II
		1400-1530	Hands-On Session 21: Reverse Engineering — Static
		1530-1700	Hands-On Session 22: Reverse Engineering — Dynamic (Ghidra)

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Resource Person Details:		
Dr Noor Mahammad Sk	Associate Professor	Dept. of CSE, IIITDM Kancheepuram
Dr Sanjeet Kumar Nayak	Assistant Professor	Dept. of CSE, IIITDM Kancheepuram
Dr B Krishna Priya	Assistant Professor	Dept. of CSE, IIITDM Kancheepuram
Dr K Gnanambikai	Assistant Professor	Dept. of CSE, IIITDM Kancheepuram
Dr Amalan Joseph Antony A	Assistant Professor	Dept. of CSE, IIITDM Kancheepuram
Dr B Pradeep Kumar G	Assistant Professor	Dept. of CSE, IIITDM Kancheepuram
Dr Dhayalakumar M	JRF	Dept. of CSE, IIITDM Kancheepuram
Mr Mohit Bhasme	PhD Scholar	Dept. of CSE, IIITDM Kancheepuram

Mentors	
Dr S Deepanjali	Post Doc IIT Madras
Ms Hafeeza Taj	Project Staff, Cystar, IIT Madras
Adithya MS	Project Interns ISEA Phase 3
Ashiq	Project Interns ISEA Phase 3
Rajvardhan	Project Interns ISEA Phase 3
Vishwa	Project Interns ISEA Phase 3
Sruthi	Project Interns ISEA Phase 3



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Recommendation Letter for Students
(Duly signed by HoD/Dean/Director/VC/Principal of the Institute)

This is to Certify that Mr/Ms Designation with .
..... of Department of Organization
name is approved to
attend the one week Boot Camp on **Mastering Software Security and Vulnerability Assessment**,
sponsored by ISEA Phase 3 by Ministry of Electronics and Information Technology Government
of India, organized by Indian Institute of Information Technology Design and Manufacturing
Kancheepuram, Chennai – 600 127, during the period of **Hybrid Mode 2025, Online(Dec 12-14)
& Offline (Dec 19-21)** .

Signature of the Attendee:

Date:

Place:

Signature of

(HoD/Dean/Principal/Director/VC)

Name:

Seal:

Note: Kindly upload the scanned copy for registration confirmation.

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