

## **Skill enhancement session on Hands-on Cyber Defense: Vulnerability Analysis and Secure OS Hardening:**

**Date:** 18.11.2025

**Time:** 11:00 AM to 12:30 PM

**Resource Person:** Mr. Param Kalaria, Cyber Security Researcher and Alumnus of GTU-SET

**Program Coordinator:** Dr. Seema B. Joshi, Assistant Professor (Cyber Security), GTU-SET

### **Objective of the Event:**

The objective of this session was to learn and enhance skill of malware analysis and research.

### **About the Event:**

The session "*Hands-on Cyber Defense: Vulnerability Analysis and Secure OS Hardening*" was organized to provide participants with practical exposure to real-world cyber defense techniques. The objective was to strengthen hands-on skills in identifying system vulnerabilities and implementing secure OS hardening practices. The event aimed to bridge the gap between theoretical knowledge and applied cybersecurity defense.

**Targeted Audience:** GTU-GSET Students of ME CE (Cyber Security).

### **Outcomes:**

- As an outcome, participants gained improved technical understanding, practical defense skills, and greater confidence in applying cybersecurity best practices in real-world environments.

### **Event Photographs:**

The screenshot shows a Google Meet interface. The main content area displays a table titled "Type of Vulnerability Scanning". The table has four rows and two columns. The columns are "Type" and "Description". The rows are: 1. Web Application: Web Application attack like SQL query injection and XSS(Cross-site-scripting) are first choose for hackers. 2. Application/Software: Attacks in application/software like memory-Leaks, buffer overflow are most common attacks, because programming language like C/C++ have memory leaks programming and for buffer overflow is mistake done by the programmer. 3. Operating System: Operating System itself is not vulnerable, but the package used in operating system is vulnerable.(Only some package are vulnerable not all!) 4. Network: Vulnerability in network contain only in network devices like router and firewall. Routers and firewalls are first line of security of the network, if they are vulnerable then full Network is vulnerable.

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On the right side of the screen, there is a participant list. The participants listed are: Param Kalaria (Presenting), Prakash Prajapati, Utsav Gandhi, Lineo Mekhakhe, Suryadeepsinh Jadeja, Dhirali Darji, 17 others, and Dr. Seema Joshi. The participant list shows small profile pictures and names next to their respective video feeds.

