SEED WORKSHOP 2015

The objective of this workshop is to provide training to the instructors who are interested in using SEED labs in their courses. This year, we will hold two workshops, one from June 1st-3rd, and the other from June 8th-10th. We will invite 30 instructors to participate in each of these workshops, and their travel costs will be covered by our grant.

If you are interested, please apply online at the following link:

http://www.cis.syr.edu/~wedu/seed/

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Project Website:
http://www.cis.syr.edu/~wedu/seed/

IMPORTANT DATES
Application Deadline: April 10, 2015
Notification Date: April 17, 2015
SEED LABS

Started in 2002, funded by a total of 1.3 million dollars from NSF, and now used by hundreds of educational institutes worldwide, the SEED project’s objective is to develop hands-on laboratory exercises (called SEED labs) for computer and information security education and help instructors adopt these labs in their curricula.

As part of the SEED effort, we have developed labs that cover a wide range of topics in computer and information security. Our software security labs cover common vulnerabilities in general software. Network security labs cover topics ranging from attacks on TCP/IP, DNS, to network security technologies like Firewall, VPN, and IPSec. Our web security labs provide students exposure to the common vulnerabilities in web applications, including XSS, CSRF, and SQL Injection. Through our system security labs, we cover various security mechanisms in OS, mostly focusing on access control mechanisms in Linux. Finally, our cryptography labs cover three essential concepts, including secret-key encryption, one way hash and public key encryption & PKI.

SOFTWARE SECURITY LABS
- Buffer Overflow Vulnerability Lab
- Return-to-Libc Attack Lab
- Set-UID Program Vulnerability Lab
- Race Condition Vulnerability Lab
- Format String Vulnerability Lab
- Shellshock Vulnerability Lab

NETWORK SECURITY LABS
- TCP/IP Attack Lab
- Local DNS Attack Lab
- Remote DNS Attack Lab
- Packet Sniffing and Spoofing Lab
- Firewall Lab
- Virtual Private Network (VPN) Lab
- Heartbleed Attack Lab

WEB SECURITY LABS
- Same Origin Policy Lab
- Cross-Site Scripting Attack Lab
- Cross-Site Request Forgery Attack Lab
- Web Tracking Lab
- SQL Injection Lab

SYSTEM SECURITY LABS
- Linux Capability Exploration Lab
- Role-Based Access Control Lab
- Encrypted File System Lab

CRYPTOGRAPHY LABS
- Secret Key Encryption Lab
- One-Way Hash Function Lab
- Public-Key Cryptography and PKI Lab
- Pseudo-Random Number Generation Lab

EASY LAB SETUP
- There is no need for a physical lab space.
- All the lab activities can be carried out on student’s computers.
- We provide VM images, and all the labs have been tested in these images.
- All software used in the lab environment is open source and free.
- Our VM is based on Ubuntu and can be run in VirtualBox and VMWare.