= Ixia Summer School on Practical Software Exploitation =

Period

23rd of June - 10th of August 2014

Links

* Wiki * Facebook page * Google Plus page * E-mail contact address

Summary

The first edition of a new Security Summer School focused on Practical Software Exploitation will take place between June 23rd and August 9th 2014, at University POLITEHNICA of Bucharest. Students will be submitted through a hands-on experience of what it means to discover, successfully exploit and patch a software vulnerability and develop the necessary skills and insights needed to embark on such an endeavor. The school programe will consist of two intensive training sessions per week as well as two Capture the Flag (CTF) competitions held mid-term and at the end of the summer school in which students will be able to showcase the skills they've learned. Both competitions will also boast prizes offered by Ixia.

Application

The selection is done based on a practical systems programming test as well as a submitted CVs & letter of intent in case of ties.

The internships are available on http://stagiipebune.ro. Please use this platform to submit your CV & letter of intent.

Location & Schedule

Computer Science & Engineering Department, Faculty of Automatic Control and Computers, University POLITEHNICA of Bucharest, Room EG106, First Floor, EG Wing

Activities will take place twice a week:

- Monday, 4pm-8pm
- Thursday, 9am-1pm

The 9th-10th of August week-end is reserved for the final CTF contest and awards ceremony.

Syllabus

Introduction to the world of software exploitation ## Dissecting a real-life exploit ## Assembly

Language Refresher ## Operating Systems Concepts Refresher ## Types of Security Exploits ## Vulnerability databases # Vulnerability Assessment ## Introduction to debugging on Windows (Immunity Debugger) (dynamic analysis) ## Introduction to disassemblers (IDA) (static analysis) # Vulnerability Discovery ## Fuzzing Methods ## Fuzzing Frameworks ## Fuzzing Examples # Weaponizing the vulnerability ## Exploit protection mechanisms & getting past them ## Shellcode ## Methods of inserting and calling the shellcode # Preventing vulnerabilities in your own code ## Code auditing ## Secure programming standards

Team

* Adrian Șendroiu * Dan Gioga * Dragoș Comăneci * Radu Caragea * Răzvan Crainea * Răzvan Deaconescu * Silviu Popescu * Tudor Azoiței

Supporting members

* Irina Preșa * Lucian Cojocar * Vlad Dumitrescu

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