



Course Introduction

Leonardo Regano

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PhD Course on Software Security and Protection

University Of Cagliari, Italy

- Leonardo Regano
 - Assistant Professor of Computer Engineering
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 - Office: 3rd floor - Bd. M - Dept. Electrical and Electronic Eng.
- Research topics
 - Software security and IP protection
 - Machine Learning for Cybersecurity
 - Network security
- Academic Curriculum
 - 2015 MSc degree in Computer Engineering (Turin Polytechnic)
 - 2015 Research Assistant (Turin Polytechnic)
 - 2019 PhD in Computer Engineering (Turin Polytechnic)
 - 2019 Post-doc Research Assistant (Turin Polytechnic)
 - 2022 International patent granted: DL-based analysis of software binaries for reverse engineering
 - 2023 Invited researcher at Gent University (Belgium)
 - 2023 Assistant Professor at the University of Cagliari

Course outline and calendar

- 2 weeks - 12 hours/week (24 hours)
 - 3 ECTS for PhD students, 2 ECTS for MSc students
- All classes from 14:30 to 18:30 in Room BA – Building I
- First week: Secure programming
 - 7 July - Secure programming: principles and guidelines
 - 8 July - Security evaluation of software
 - 10 July - Lab: software testing with automatic tools
- Second week: Software protection
 - 15 July - Techniques for protection of software and Intellectual Property
 - 16 July - Static analysis of software
 - 18 July - Lab: software obfuscation
- **Attendance at 4 classes at least mandatory to take the exam**
- Exam: group project
 - group of 3-4 students
 - find a FOSS application, test for vulnerabilities, find assets and protect them
 - prepare and submit a detailed report of your activities