

# System Security

## *Administration*

Mohamed Sabt

Univ Rennes, CNRS, IRISA

2023 / 2024

# Organization

🕒 In total, you have 52.5 hours:

- 16.5 hours of lectures (Yours truly),
- 12 hours of TD sessions (Yours truly),
- 18 hours of Labs (Yours Truly).
- 6 hours of Evaluation (Paper Presentation + Final Exam)

🕒 Rooms:

- WARNING !!! Always look at your schedule.

🕒 Site: [http://people.irisa.fr/Mohamed.Sabt/teaching/system\\_security](http://people.irisa.fr/Mohamed.Sabt/teaching/system_security)

# Course Overview

## Goals:

- Improve your knowledge of Operating Systems and their security.
- Perform simple tasks related to OS security.
- Familiarize yourself with cybersecurity problems.

## Focus points:

- Unix.
- File system security and Access Control Lists
- Isolation technologies.
- Lecture and presentation of scientific papers.

# Planning

- 🕒 Week 1: The Boring Introduction.
- 🕒 Week 2: The Rabbit Hole into How your Computer Runs Programs.
- 🕒 Week 3: Security is Found at the Boundary (Kernel/User Modes).
- 🕒 Week 4: You Shall Pass with the Right Password.
- 🕒 Week 5: Files as the True OS Atom.
- 🕒 Week 6: Waltzing Access Control in Unix 1/2.
- 🕒 Week 7: Waltzing Access Control in Unix 2/2.
- 🕒 Week 8: Learn you a Capability for Great Good!
- 🕒 Week 9: The Art of Encrypting Your Filesystems.
- 🕒 Week 10: Read and Thy Professor Would Listen to Thee.
- 🕒 Week 11: Windows is the New Black.
- 🕒 Week 12: Name Your Favorite Namespace.

# Evaluation

## 5 \* Labs:

- Quiz at the end of each lab (except 2).

## Presentation:

- 15 minutes

## Exams:

- Final

**Final note:** 35%Labs + 20%Presenetation + 45%Final