

Offensive and Defensive Measurements in Wireless
Security — WS 2021
Seminar

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Lehrstuhl für Sicherheit in der Informatik / I20
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What is this seminar about?

- ▶ **Offensive** measurements in wireless communication:
 - ▶ Interception
 - ▶ AIR-FI
 - ▶ Jamming and Mimicking
 - ▶ Tracking
- ▶ **Defensive** measurements in wireless communication:
 - ▶ Privacy preserving features
 - ▶ Proximity

Process

- ▶ Phase **I**: Select a **topic**
- ▶ Phase **II**: Find **literature**
- ▶ Phase **III**: Do your **reading / experiments / programming**
- ▶ Phase **IV**: **Writing** phase I
- ▶ Phase **V**: **Peer review**
- ▶ Phase **VI**: **Writing** phase II
- ▶ Phase **VII**: Final **talks**

Exact schedule will be published once list of participants is known.

Phase I

1. We will provide you with a list of **our topics of interest**
2. You will **choose / propose** your own topic and either:
 - ▶ Work out the offensive / defensive measurement
 - ▶ Reproduce the results of an existing conference paper
 - ▶ Create your own Systematization of Knowledge (SoK) paper
3. In all cases, you will put your work into context of existing literature
 - ▶ e.g at Usenix Security Symposium, S&P, ACM CCS, NDSS

Our Topics of Interest

- ▶ Overshadowing (LTE)
- ▶ BLE Privacy
- ▶ Payment Systems
- ▶ Software Defined Radios/Frameworks
- ▶ Jamming and Mimicking
- ▶ Wireless Positioning
- ▶ Key Agreement in Peer-to-Peer Wireless Networks
- ▶ **Or:** provide us with your own topic proposal

Registration

- ▶ Registration using the **matching system**
- ▶ **No** letter of motivation
- ▶ approx. **16** slots

Time and Place

When? **Monday** (bi-weekly), 12:00 - 14:00
01.08.033 / BBB

Talks at the **end** of the semester

Where?



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Where? Seminartagungsstätte Frauenchiemsee
Disclaimer: Only if participants show interest!
Fallback: Room 01.08.033 / BBB

Grading

| | |
|------|--|
| 40 % | Final Paper (Content, Style, Language, Scope, ...) |
| 10 % | Practical application (depends on topic) |
| 10 % | Review |
| 30 % | Presentation (Content, Style, Timeliness, ...) |
| 10 % | Discussion |

Σ 100 % Total

Questions?

Contact us at
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[https://www.sec.in.tum.de/i20/teaching/
offensive-and-defensive-measurements-in-wireless-security](https://www.sec.in.tum.de/i20/teaching/offensive-and-defensive-measurements-in-wireless-security)