

ESSE Seminar aus Security 22W – Lecture 00: Preliminary Discussion

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INSO – Industrial Software

Institute of Information Systems Engineering | Faculty of Informatics | TU Wien

ESSE



ESSE – Establishing Security

- Institute of Information Systems Engineering
- Research Group for Industrial Software (INSO)
- Working Group Establishing Security (ESSE)

- Lectures
 - Introduction to Security (*W, Bachelor*)
 - Security for Systems Engineering (CTF-Contest) (*S, Bachelor*)
 - Mobile Security (*W & S, Bachelor*)
 - Advanced Security for Systems Engineering (*W, Master*)
 - Selected Topics of Digital Forensics I (*S, Master*)
 - IT Security in Large IT Infrastructures (CTF-Contest) (*S, Master*)
 - Seminar on Security
 - CTF Contests: Hands-On Experience of the IT Security Culture (*S, Bachelor/Master*)
 - Projects, Bachelor Thesis, Master Thesis, PhD Thesis

Research Topics (Excerpt)

- Electronic Payments
- Large IT Infrastructures
- Secure and Anonymous Communication
- Embedded Security and Internet of Things
- Governance, Risk and Compliance
- eHealth
- Penetration Testing, Security Audits, Security Certification
- Identification, Authentication and Authorization, eID solutions
- IT Security Teaching Methods
- XML Security
- DevSecOps

Excerpt of Applying Subject Areas

- Malware and Internet Crime
- Physical Security of IT Systems
- Applied Cryptography
- Exploit Development, Offensive Computing, and Exploit Mitigation
- Rootkits and OS Security
- Honeypots, Honeynets, and Honeytokens
- Mobile Security
- Privacy-Protection in Cloud/Mobile Applications
- Security Usability for End-2-End Security
- Security Engineering in the Software Life-Cycle

- Questions regarding ESSE Seminar aus Security
 - See slide 19

- Other matters, e.g., bachelor/master theses, projects, . . . :
 - esse@inso.tuwien.ac.at
 - Office Hour on agreement: Wiedner Hauptstraße 76/2/2

ESSE Seminar aus Security 22W



Seminar aus Security provides *knowledge in selected topics of IT Security* in the form of *discussions*, a *comparative literature search* and a *presentation of the results*.

In particular, the following aspects are relevant:

- Audience-friendly work-up of a topic
- Presentation in a conference-like setting
- Giving and taking feedback

- Select a base paper and use it as inspiration to chose your own paper title within the given subject area
- Search for relevant literature and present it
- Present the structure of your paper and your presentation
- Write the paper
- Review 2 papers of other students
- Improve your paper based on the student reviews
- Submit your final paper
- Present your results

Possible Distance Learning

- If necessary, we will publish this in tuwel
- Held remotely via INSO Jitsi
- Detailed room information/passwords in tuwel
- Web browser is needed in order to join
- Camera to show student ID
- email: lva.security@inso.tuwien.ac.at
- tuwel forum

- 05.10.2022, 16:00** Preliminary Discussion
- 10.10.2022, 23:55** Deadline for Registration in TISS
- 10.10.2022, 23:55** Publication of Base Papers
- 12.10.2022, 23:55** Begin Selection of a Base Paper in TUWEL
- 19.10.2022, 23:55** End Selection of a Base Paper in TUWEL
- 25.10.2022, 16:00-19:00** Presentation of the Literature
- 03.11.2022, 16:00-19:00** Presentation of the Slide and Paper Structure

Lecture – Schedule 2/2

30.11.2022, 23:55 Paper Submission

07.12.2022, 23:55 Review Submission

11.01.2023, 23:55 Final Paper Submission

25.01.2023, 16:00-19:00 Final Presentation

22.02.2023, 23:55 Voluntary Paper Enhancement Submission

Requirements for the Paper and the Slides

- Paper
 - Paper in English
 - Exactly 5 pages, including references, figures, tables etc.
 - Use the \LaTeX template

- Presentation/Slides
 - Slides and presentation in English
 - 10 minutes for presentation, max. 5 minutes for discussion
 - Use the \LaTeX template

Assessment Criteria for Papers

- Quality of the paper – max. 60 points
 - Content
 - Phrasing
 - Scientificity
 - Quality of the literature (be better than some published papers :))
- *The paper is a literature paper only. You don't have to write a paper based on your own practical research.*

You can, however, if you want :)

Assessment Criteria for Reviews and Final Presentation

- Quality of the review – max. 20 points
 - Argumentation
 - Conclusiveness
 - Explanation
- Quality of the final presentation – max. 20 points

Requirements for the Submissions

- The paper, the paper diff and the slides must be PDF
- The submission of the final paper contains
 - The final paper
 - Colored changes between draft and final paper (use `latexdiff`)

Please mind requirements such as page numbers and structure

- Deadlines are sharp!
- Breaking structure conventions leads to paper rejection (0 points)
- Only the final paper submission is graded, but submitting the first draft late will exclude you from the review process (You will automatically get 0 points for the reviews.)
- The points received on the voluntary paper enhancement submission replace the points received on the final paper submission
- You will receive a certificate after the first submission

- Digital Signatures & Encryption
- More Cryptographic Protocols
- Teaching Security
- Browser Privacy & Security
- Threat Modelling
- Privacy in the Cloud
- Web Security
- Forensics
- Android Security & Testing
- ARM Trustzone
- Linux Kernel Security
- (Machine Learning in) Intrusion Detection Systems
- iOS Security
- Mobile Health App Security
- Software Security
- Malware & Underground Markets

Support for Questions Regarding the Lecture

- Questions that are interesting and should be visible for other students as well
 - Tuwel forum
 - No solutions, commands etc. → otherwise deduction of points
 - *Please note: We do not monitor other forums*
- Specific questions
 - lva.security@inso.tuwien.ac.at – please state the lecture name as this e-mail address is used for multiple lectures; please state your team number, if available, as well
 - Office hour
- *Please do not use other ways, e.g., Tuwel submission comments*

Thank you!

<https://security.inso.tuwien.ac.at/semsec-2022w/>

