

Seminar: Innovative Internet Technologies and Mobile Communications (IITM)

Info Meeting

Prof. Dr.-Ing. Georg Carle, Dr.-Ing. Stephan Günther, Benedikt Jaeger

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Chair of Network Architectures and Services
Department of Informatics
Technical University of Munich



Basic Information



Lecturer

Prof. Dr.-Ing. Georg Carle

Organization

seminar@net.in.tum.de (only use this mail address!)

- Dr.-Ing. Stephan Günther
- Benedikt Jaeger

Overview

- Main Language: English
 - paper and reviews in English
 - · talk can be in German or English
- Extent: 2 SWS, (5 ECTS)
 - 5 ECTS · 30 h = 150 h of work expected from you
- Course Type:
 - For B. Sc. Students: Advanced Seminar Course (Seminar)
 - For M. Sc. Students: Master's Seminar (Master-Seminar)

Seminar Procedure



First version of your paper

- · Agree on the content with your advisor
- Use the provided paper template (LATEX)
- Keep in touch with your advisor
- Try to finish in time so your advisor can give you feedback
- Your paper must be 4 pages in IEEE 2-column style (including references etc.)
- Expected language for the paper is English

Present your topic

- German or English
- 20 min talk + 5 min discussion

Peer review

- You have review two papers of your fellow students
- Reviews are part of your final grade
- Review language is English

Final version of your paper

- Use the received reviews to improve your paper
- You will also receive feedback from the advisor
- If you and your advisor agree \rightarrow publication in the seminar proceedings

Seminar vs Block Seminar (former Future Internet)



- Both seminars offer similar topics
 - Check the proceedings
- Block Seminar (IN4600)
 - Topic presentation: Friday, February 28th, 14:00, room 03.07.023
 - This is just a few days after the matching assignments are published!
 - Seminar paper to be written in lecture free time (only few weeks until first version)
 - Talks as block in the last weeks of the lecture free time (April 2nd / 3rd, whole day, 10:00 16:00)
 - Registration limited to 14 participants
- Seminar (IN4595)
 - Topic presentation: Friday, April 24th, 14:00, room 03.07.023
 - This is the first week of the semester
 - Seminar paper to be written during the semester
 - Talks in weekly sessions on Friday, 14:00, starting in July (probably 4 meetings)
 - Registration limited to 16 participants

Grading



1. Both of your paper submissions, 4 pages in IEEE (50 %)

1st version: 37.5 %

2nd version: 12.5 %

2. Your talk, 20 – 25 min, following discussion, and feedback (25 %)

3. Your reviews of papers from other seminar participants (25 %)

Grading



Influencing Factors

- First version of paper must be acceptable
 - \bullet Grade worse than 4.0 \rightarrow disqualification (seminar graded as 5.0)
 - Less than 4 pages in the seminar template → disqualification (not 3.1 pages + empty space, not 4 pages + references)
- Observe the deadlines
 - Advisor meetings are compulsory
 - You are provided with git repositories to check in your work and submissions
 - Hard deadline for each submission
- No submission
 - 1st version of paper \rightarrow disqualification (seminar graded as 5.0)
 - \bullet Other submissions \rightarrow grade 5.0 for the concerning part
- Write the paper yourself
 - $\bullet \quad \text{Plagiarism} \rightarrow \text{disqualification (and we will check!)}$
 - Attempted cheating will be reported to the examination office
 - Summary when and why to cite: citation guide
 - Regularly push your progress to avoid misunderstandings
- Absence during talks without valid excuse
 - . 0.3 degrading per missed talk on your presentation grade
 - \bullet Talk graded worse than 4.0 \rightarrow disqualification (seminar graded as 5.0)

Topic Handling



- You get some literature or hints where to start from your advisor
- This is just to get you started
- Find appropriate (scientific) sources yourself

- scholar.google.com
- acm.org
- · ieee.org
- semanticscholar.org
- Your sources' sources
- ...



TUM provides access to non-free papers via eaccess.ub.tum.de.

Just presenting the given literature is not enough

The Advisor's Role



- Advisors create topics within their research context.
 - They have broad knowledge about the context of your seminar topic.
- Your task is to do research and write a scientific text about a specific topic beyond basic lecture content.
 - Your advisor is not responsible for your tasks.
- Adhering to the deadlines is your responsibility.
 - Your advisor will not remind you.
- Advisors will help you if you ask them to.
 - Keeping contact with your advisor allows you to write a much better seminar paper.
- Advisors can give you feedback.
 - Ask for feedback about your first paper version, the peer reviews, your slides for the talk, etc.

Talk Procedure



- Prepare your talk
 - Finished slides must be discussed with your advisor 1 week before the talk.
 - Advisors may offer the opportunity of rehearsal talks.
- Present your work
 - Scientific talk
 - · Present the main results & give an interesting talk
- Session chair for one talk
 - Introduce the speaker
 - Watch the time constraints
 - Try to get the discussion started after the talk (ask at least one question if nobody else does)
- Mandatory attendance on all sessions
 - If you cannot attend for a good reason, contact seminar@net.in.tum.de in advance
 - Attending the talks is mandatory for passing the course (schedule of talks will be published after the first submission)

Talk Procedure



Improving Your Presentations Skills

- You have the chance to get your talk recorded
 - Have a look at yourself after the talk!
 - Your talk was great? Share it and show it to your friends
 - You fully control the access! Initially only you can access it
- Get feedback from your colleagues (not graded)
 - Feedback forms to be filled out during the talks





Seminar Proceedings



TUTT

- We give the opportunity to publish your papers!
 - If both you and your advisor agree
 - Proceedings of the last years can be found on www.net.in.tum.de/publications/seminar%20proceedings
- Look at old proceedings
 - Examples of papers we consider "good"
 - Get an idea of the topics we cover
- Best Paper Award (only published papers)
 - We will choose the best paper in each seminar
 - They will receive a certificate and a hardcopy of the proceedings





Registration



- Registration is handled centrally on a dedicated web platform
 - 1. You enter your seminar preferences
 - 2. We enter our students preferences
 - 3. The system computes a student-optimal matching

More info: docmatching.in.tum.de

- If you want to be preferred by us, register with your student card when leaving the room
 - We will prefer you for both seminars
 - The list is closed after the event
- The result of the matching is binding, you cannot resign from the course afterwards
 - Only enter courses that you really want to participate in
 - We accept withdrawals only for special reasons (e.g. not getting any of your topic preferences)

Matching - Example 1



Your preferences

- \$your_favorite_seminar
- 2. \$i8_seminar
- 3. \$not_so_interesting_seminar

- Putting your matriculation number on our list does not reduce your chance of being assigned to \$your_favorite_seminar
- However, your chance of being assigned to \$i8_seminar is increased if you cannot be assigned to \$your_favorite_seminar

Matching – Example 2



Preferences Student A

- \$very_popular_seminar
- \$popular_seminar

Preferences Student B

\$popular_seminar

- The chances of getting assigned (to any course) are not higher for Student B compared to Student A
- The matching system works best **for you** if you honestly enter all your preferences
 - Giving same priority to multiple courses is possible

Preliminary Schedule



Block Seminar	Dates
Topic presentation Upload paper (1 st version) Talks Upload reviews Upload paper (2 nd version)	February 28, 14:00 March 29, 23:59 April 2/3, whole day April 19, 23:59 May 3, 23:59

Seminar	Dates
Topic presentation Upload paper (1 st version) Talks Upload reviews Upload paper (2 nd version)	April 24, 14:00 End of June tba tba tba

Preliminary List of Topics



- Equivocation
- Package manager security
- Timeseries Predictions
- Reproduction of Internet Toplist Analysis
- Citation Graph Analysis Data Preprocessor
- Analysis of Facebook Libra
- Survey of Federated Consensus Protocols
- Longest Prefix Matching in PostgreSQL
- Recent Activity in P4
- P4₁₆ INT Applications

- Properties of scheduling algorithms in Network Calculus
- What is Stochastic Network Calculus?
- State of the Certificate Transparency Ecosystem
- Atomic Broadcasts and Consensus
- Applications of eBPF
- Network Function Virtualization in NFF-Go
- VPP for Virtual Switching
- Network State Consistency in SDN with Distributed Controller



In General, write emails only to seminar@net.in.tum.de