Karlsruher Institut für Technologie

Institut für Operations Research
Lehrstuhl für Stochastische Optimierung
Prof. Dr. Steffen Rebennack

August 6, 2024

Seminar: General Information (WS 2024/25)

(Energy and Power Systems Optimization // Trending Topics in Machine Learning and Optimization)

- This seminar is a block course. There are no pre-requisites (unless explicitly stated in the seminar description.)
- The final grade is composed of 50% written paper and 50% presentation.
- The paper and presentation have to be in English.
- You will have the possibility to meet with your adviser (Dr. Warwicker) during the semester, to ask any questions or for advice with your work. You can best reach your adviser via e-mail (`john.warwicker@kit.edu`).
- The paper is due: **Friday 20th December 2024**.
- The presentations will take place via MS Teams: **Friday 10th January 2025** (this is subject to change). Please use a computer with a working microphone and camera if possible.
- Please register for the seminar in the CAS system before the examination period. The event is either
  - "Energy and Power Systems Optimisation (Bachelor/Master)";
  - "Trending Topics in Machine Learning and Optimisation (Bachelor/Master)";

  depending on your chosen course.
  IMPORTANT NOTE: the event "Seminar in Operations Research" is a different seminar - **please do not register for this**.

FAQ

- **Is it enough to work with the given literature?**
  No! A thorough literature review is part of the paper (see the structure of the paper).
- **Is it enough to give a rough overview of the topic?**
  No! A detailed description of at least one idea within your topic is necessary (in the main body of your paper).
- **Are computations mandatory for the Bachelor seminar?**
  No! Full marks are obtainable without computations. However, if you feel they are necessary for your paper, you are free to include them.
- **Is it sufficient to copy materials from previous lectures?**
  No!

The Paper

- The paper should be approximately 20 pages. In the template below, consider the *Introduction* page as Page 1.
- The paper has to be done with LaTeX. You can find an introduction here:
  - Short introduction in English (part one of three): `https://www.overleaf.com/learn/latex/Free_online_introduction_to_LaTeX_(part_1)#.WYni0CdpzRY`
  - Short introduction in German: `https://archiv.dante.de/TeX-Service/TSP/tex/cookbook/cookbook.html`
  - An extended version in English: `http://tug.ctan.org/info/lshort/english/lshort.pdf`
- The paper is organised as follows:
  - Abstract
  - Introduction
  - Literature Review
  - Main Body
  - Own computations (obligatory for the Master seminars)
  - Conclusions
  - References
  - (Appendix)
- The paper uses the following template: `http://sop.ior.kit.edu/downloads/Seminar-template.tex`
- You can find a guide for scientific writing here: `https://www-fourier.ujf-grenoble.fr/~dpiau/howto/write.pdf`
- You submit your *Seminarschein* with the final version of the paper. The form is found here: `https://www.wiwi.kit.edu/downloads/Seminarschein_B-MSc_6-16.pdf`

The Presentation

- The presentation should take around 20-25 minutes. There will be an additional 5 minutes for questions.
- You are required to attend the other presentations.
- There is no template for the presentation.
- Please send your presentation to your adviser ahead of time, in case of any technical difficulties.

Good luck!