
Safety and Reliability of Embedded Systems

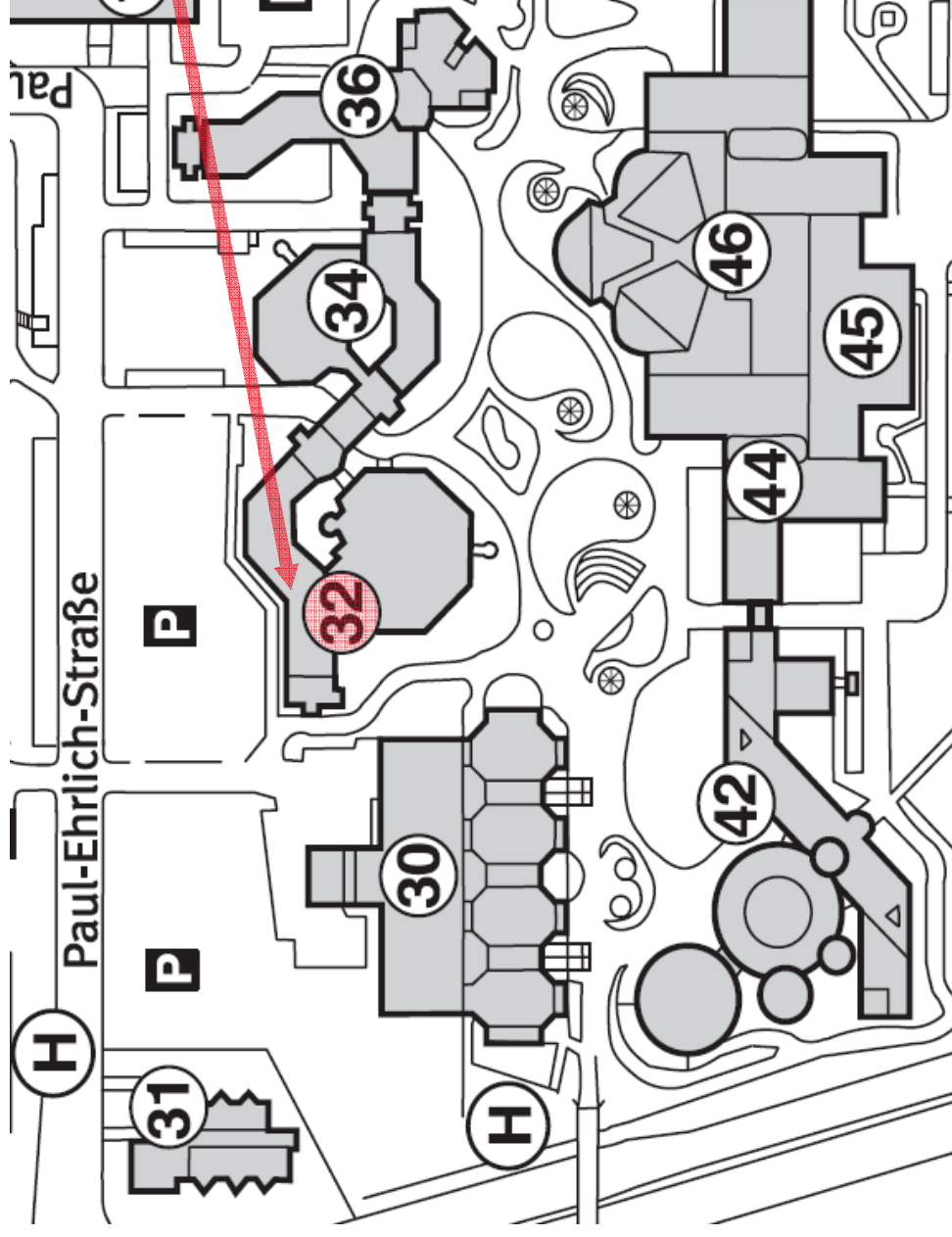
(Sicherheit und Zuverlässigkeit eingebetteter Systeme)

Welcome!

Administrative Issues

- ☐ Lecture held by AG Software Engineering: Dependability
 - <http://agde.informatik.uni-kl.de/teaching/suze/ws2008>
- ☐ Lecturer
 - Prof. Dr. Peter Liggesmeyer
 - Email: liggesmeyer@informatik.uni-kl.de
 - Office hours on appointment
 - Room: 32-425
- ☐ Tutor
 - Dipl.-Inf. Gerrit Hanselmann
 - Email: hanselmann@informatik.uni-kl.de
 - Phone: (0631) 205-3449
 - Office hours on appointment
 - Room: 32-429

Administrative Issues



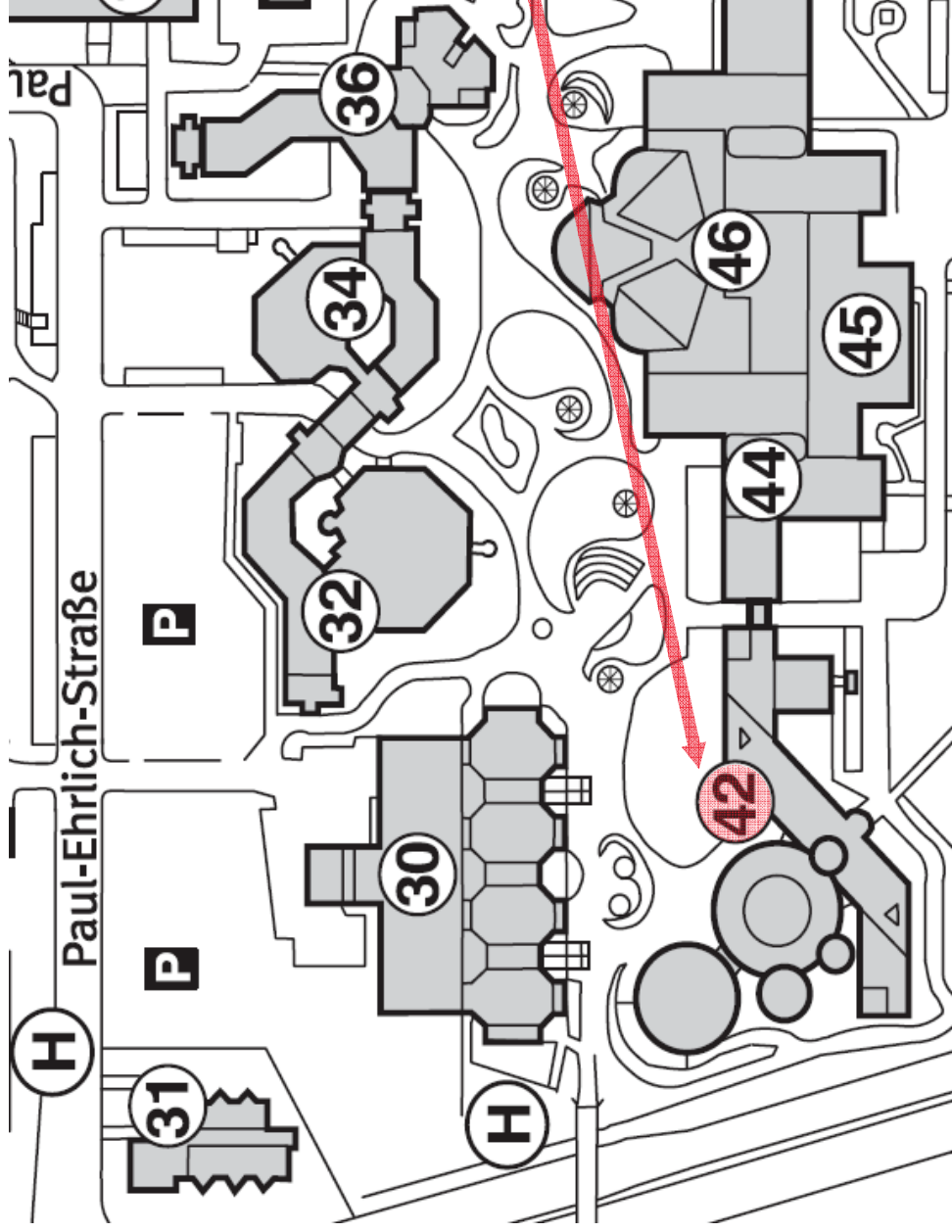
AG Software Engineering: Dependability
Technical University of Kaiserslautern
Building 32, 4th Floor
P.O. Box 3049
67653 Kaiserslautern
Germany

Administrative Issues

- ☐ Schedule
 - Lecture (2 SWS)
 - Held weekly
 - Wednesday, 13:45 - 15:15, Room 42-110
 - Tutorial (1 SWS)
 - Held every two weeks (usually)
 - Thursday, 13:45 - 15:15, Room 13-305
 - Start of tutorials: Thursday, October 23 (only administrative topics)

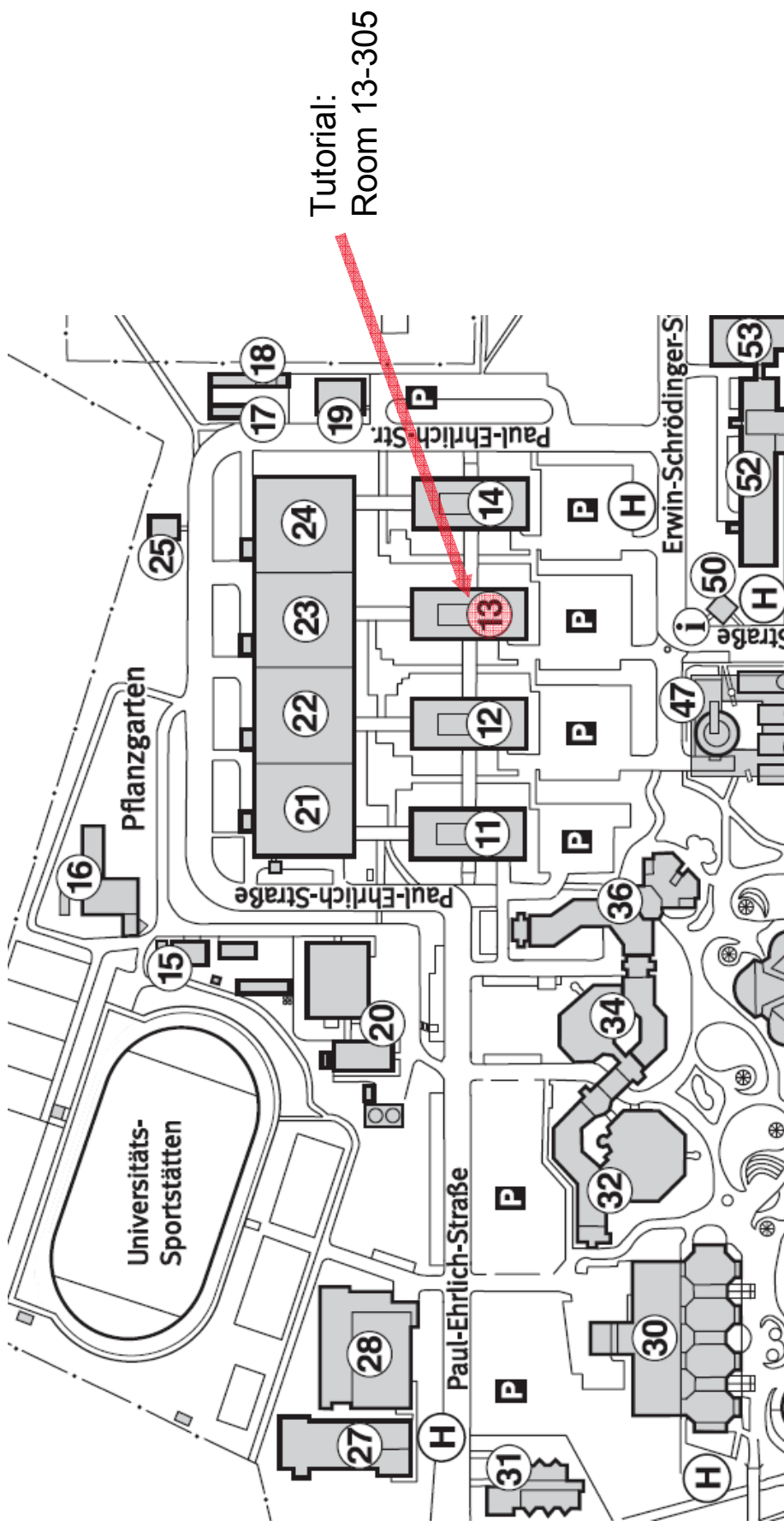
- ☐ Grading by written or oral exam (mode and date will be announced within lecture and tutorial)

Administrative Issues



Lecture:
Room 42-110

Administrative Issues



Administrative Issues

☐ Lecture notes

- Available online at:
<http://agde.informatik.uni-kl.de/teaching/suze/ws2008/material/vorlesung/>
- Format: PDF or Postscript

☐ Problem sheets

- Available online at:
<http://agde.informatik.uni-kl.de/teaching/suze/ws2008/material/uebung/>
- Format: PDF or Postscript
- There will be no solutions published, so it is highly recommended to attend the tutorial sessions!
- Please note that there is no handing-in and no marking of solved problem sheets

Administrative Issues

- Goals of lecture
 - Get to know selected formal and stochastic techniques for safety and reliability analysis of software and systems
 - Be able to use particular analysis methods in practice

Administrative Issues

- Topics
 - Introduction
 - Terminology
 - Risk Acceptance Methods
 - Safety and Reliability Analysis Models
 - FMECA (Failure Modes, Effects and Criticality Analysis)
 - Fault Tree Analysis
 - Symbolic Model Checking
 - Stochastic Reliability Analysis
 - Quality Assurance and Quality Management

Administrative Issues

- ☐ Goals of tutorial
 - Work-out solutions to problem sets
 - Clarification of issues concerning the lecture
 - But: The intention is not to provide a substitute for the lecture!
- ☐ Topics
 - Same as lecture