

software engineering dependability

Safety and Reliability of Embedded Systems

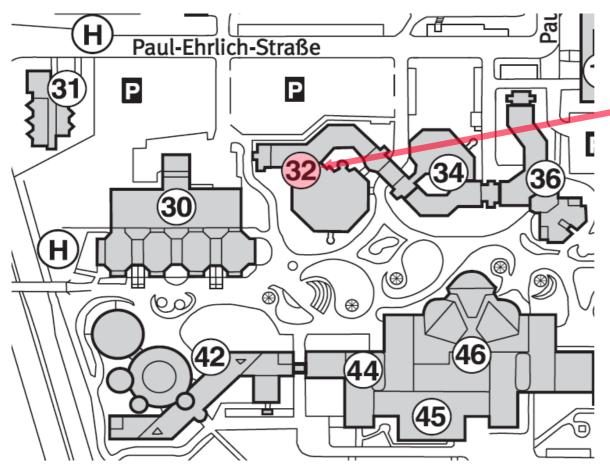
(Sicherheit und Zuverlässigkeit eingebetteter Systeme)

Welcome!



- Lecture held by AG Software Engineering: Dependability
 - http://seda.informatik.uni-kl.de/teaching/suze/ws2013
- Lecturer
 - Prof. Dr. Peter Liggesmeyer
 - Email: liggesmeyer@informatik.uni-kl.de
 - Office hours on appointment
 - Room: 32-425
- Tutor
 - M.Sc. Michael Roth
 - Email: michael.roth@cs.uni-kl.de
 - · Office hours on appointment
 - Room: 32-427





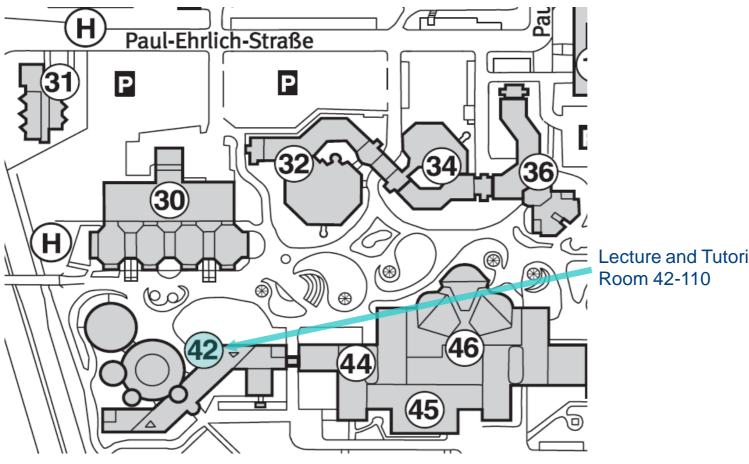
AG Software Engineering: Dependability

Technical University of Kaiserslautern Building 32, 4th Floor P.O. Box 3049 67653 Kaiserslautern Germany



- 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 42-110
 - Start of tutorials: Thursday, November 21th
- Grading by written exam (date will be announced within lecture and tutorial)





Lecture and Tutorial:



Lecture notes

- Available online at: http://seda.cs.uni-kl.de/teaching/suze/ws2013/material/folien/
- Format: PDF

Problem sheets

- Available online at: http://seda.cs.uni-kl.de/teaching/suze/ws2013/material/excercise/
- Format: PDF
- 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 grading of solved problem sheets



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



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



- 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