Welcome!

Safety and Reliability of Embedded Systems
(Sicherheit und Zuverlässigkeit eingebetteter Systeme)

Welcome!
Administrative Issues

• Lecture held by AG Software Engineering: Dependability
  • http://seda.informatik.uni-kl.de/teaching/suze/ws2011

• 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
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• 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 8th

• Grading by written exam (date will be announced within lecture and tutorial)
Lecture and Tutorial: Room 42-110
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• Lecture notes
  • Available online at:
    http://seda.cs.uni-kl.de/teaching/suze/ws2012/material/folien/
  • Format: PDF

• Problem sheets
  • Available online at:
    http://seda.cs.uni-kl.de/teaching/suze/ws2012/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 marking 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
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• 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
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• 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