



Embedded Networked Systems

Overview

Kai Huang



Organization

- Course website:
<http://www6.in.tum.de/Main/TeachingWs2013MSE>
- Lecturer: Dr. Kai Huang (kai.huang@in.tum.de)
- Assistants: Philipp Heise (heise@in.tum.de)
Hardik Shah (shah@in.tum.de)
Gang Chen (cheng@in.tum.de)
Biao Hu (hub@in.tum.de)
Long Chen (chengl@in.tum.de)
- Grading
 - Closed-book written exam
 - No evaluation for exercises



Structure

- Lecture section
 - Goal: Introduce state-of-the-art methodologies, methods, techniques to design embedded/cyber-physical systems.
 - Format: Oral presentations supported by PPT. The slides will be available on the web page after each lecture.
- Exercise section
 - Hands-on lab sessions with practical assignments.
- The slides contain material of J. Rabaey, K. Keuzer, Marilyn Wolf, Philip Koopman, L. Thiele, Todor Stefanov and from the books of J. Teich, G.C. Buttazzo, and Edward Lee, D. Gajski, and Peter Marwedel.



Contents of the Course

- Concept of embedded systems and cyber-physical systems (1 lecture)
- Methodologies of embedded system design (1 lecture)
- Specification and modeling (2 lectures)
- Embedded hardware (2 lectures)
- Embedded software (2 lectures)
- Communication (2 lectures)
- Performance analysis (2 lectures)
- Case studies (2 lectures)
 - Wireless sensor network
 - Electric vehicles

