

Seminar

Real-time communication systems

Morteza Hashemi Farzaneh

Robotics and Embedded Systems
Department of Informatics – I6
Technische Universität München

www6.in.tum.de

hashemif@in.tum.de

089-289-18130

Room 03.07.057



SS 2014

28.01.2014



Introduction



- Morteza Hashemi Farzaneh
- Scientific Assistant
- Robotics and Embedded Systems
- Research topics:
 - Real-time communication in general
 - Real-time middle-ware
 - Industrial Ethernet
 - Deterministic Networked Medical Systems
- Project OR.NET
 - Real-time communication in medical environments such as operating rooms
 - Middle-ware based approaches



Seminar Real-time communication systems

- Focus is on the state of the art
- Searching for relevant papers to a given specific topic
- Reading papers and getting a overall view of the topic
- Important objective: You should master the state of the art!
- Writing a scientific (state of the art) paper about the topic.
- Reviewing the papers of other students
- Revising the papers based on the reviews
- Presentation (20 min talk, 10 min answering questions)



Grading

- Finding the related state of the art papers (30%)
- Reading the papers and writing the seminar paper (30%)
- Review (20%)
- Presentation (20%)
- After receiving the topic assignment email from me, you have only **1 day** to resign, else your grade will be **5.0**.
- Attending the block lecture of presentations is **mandatory** for passing the seminar!



Plagiarism

- Copy & Paste
- Using a scientific idea or concept without citation
- Seminar will be **failed!**
- **Reporting** the case to the responsible persons in **TUM**



Procedure

1. Topic assignment
2. Each student arranges an appointment with me (07.02.2014)
3. Finding and reading related papers (07.04.2014)
4. Writing the seminar paper and sending to me (07.05.2014)
5. Each student reviews one paper (21.05.2014)
6. Reviewed papers will be sent to me again and I forward them to the authors (25.05.2014)
7. Sending the final paper and presentation to me based on the reviews (30.06.2014)
8. Presentation of papers with mandatory attendance (1,5 days in July)



General Information

- We use IEEE latex template for writing papers

http://www.ieee.org/conferences_events/conferences/publishing/templates.html

- For editing you can use ***texmaker***

<http://www.xm1math.net/texmaker/>

- For managing the paper references and very easier citing you can use Mendeley

www.mendeley.com



Competition

I will select the two best papers and invite the authors for writing real conference papers with me as co-author if they are interested.



Topic assignment

You select 3 topics and I try to achieve the best matching, but there is no guarantee 😊

- Real-time capability of IP-based networks
- Real-time in SOA-based communication systems
- Real-time communication and DDS
- Real-time middleware (ICE, CORBA, etc.)
- Multicore CPUs and their effects in real-time networks
- Industrial Ethernet
- Real-time communication in embedded systems
- Time verification of real-time networks
- GUIs for modelling real-time networks
- Real-time networks for real-time video streaming



Example

Name: XYZ

- Real-time capability of IP-based networks
- Real-time in SOA-based communication systems
- 1 Real-time communication and DDS
- Real-time middleware (ICE, CORBA, etc.)
- Multicore CPUs and their effects in real-time networks
- 3 Industrial Ethernet
- Real-time communication in embedded systems
- 2 Time verification of real-time networks
- GUIs for modelling real-time networks
- Real-time networks for real-time video streaming



Topic assignment

Name:

- Real-time capability of IP-based networks
- Real-time in SOA-based communication systems
- Real-time communication and DDS
- Real-time middleware (ICE, CORBA, etc.)
- Multicore CPUs and their effects in real-time networks
- Industrial Ethernet
- Real-time communication in embedded systems
- Time verification of real-time networks
- GUIs for modelling real-time networks
- Real-time networks for real-time video streaming

