Distributed Systems – Closing Words

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EXAM

Friday, 8 February 2012
09:00 – 12:00
Exam

- Split into two parts
  - Mattern (90 points)
  - Wattenhofer (90 points)
  - 180 minutes shared for both parts (work in any order)

- Exam preparation exercises will be available on Web site [http://www.vs.inf.ethz.ch/edu/HS2012/VS/](http://www.vs.inf.ethz.ch/edu/HS2012/VS/)

- No Android programming questions
AVAILABLE PROJECTS

http://www.vs.inf.ethz.ch/edu/theses.html
Smartphones and Displays

- Interaction with large public displays
- Building a tiled display from smartphones

http://people.inf.ethz.ch/soeroesg/
Blury Barcode Recognition

- Image stabilization
- Live photo sharpening
- Super resolution
Mobile Shopping Assistant

- Price label recognition on mobile phones
- Product recognition in grocery stores
- Product augmented reality

© WordLens
A Magic Lens for Visualizing Device Interactions

Interested? simon.mayer@inf.ethz.ch
A Smart Heating System Using «Opportunistic» Sensors

Goal: To use sensors - which already exist in the household - to build an efficient heating system!

- Occupancy detection
  - Sensor fusion with multiple, heterogeneous sensors
- Occupancy prediction
  - Infer future occupancy from current context of user (location, activity, …)
- Heating / Actuation
  - Learn how to heat an unknown space

Cool topics (M/B/L) available in all 3 research areas. Please get in touch with Wilhelm Kleiminger (wilhelmk@ethz.ch) for more information!
Designing Future Energy Systems

- Project with **energy provider** in Switzerland
  - Multiple households equipped with sensors
  - ~150 MB per day(!)
- **Challenge**: Efficient data storage & retrieval

- **Contact**: Christian Beckel
  - [http://people.inf.ethz.ch/beckelc/](http://people.inf.ethz.ch/beckelc/)
- Other projects (machine learning) available
The Copper (Cu) CoAP user-agent for Chrome

Learn to develop browser add-ons for new protocols

CoAP protocol handler and GUI for Mozilla Firefox
Port to Google Chrome
Create tool for code updates (target code generation)

http://people.inf.ethz.ch/mkovatsc/
Automated Integration Testing for Embedded Web Services

Learn proper build automation for software projects

CoAP back-end framework

Already uses Apache Maven

Provide integration tests

Add support for travis-ci.org

http://people.inf.ethz.ch/mkovatsc/
Top Students: Work on Mozilla Firefox

Mozilla is open for patches to roll out new Web protocols

Make Firefox’s new DTLS 1.2 support scriptable
Port CoAP code to C++
Help offered by Mozilla networking engineer

http://people.inf.ethz.ch/mkovatsc/
SEMINARY FS2013

252-3600-02L
252-3600-02L Distributed Systems Seminar

- Focus on ubiquitous computing and computer interaction
- With Otmar Hilliges (new professor, previously Microsoft Research, UK)
- About ten slots for participants
- Preparation meeting will be announced
- See catalogue

http://www.vvz.ethz.ch/Vorlesungsverzeichnis/lerneinheitPre.do?lerneinheitId=82961&semkez=2013S
OPEN PROJECT PRESENTATION

Monday, 17 December 2012
One Minute Madness

Submission

- Provide one (or very few) slides to introduce your project
- Submit slides as PDF

On Monday

- One presenter per group
- Line up next to stage
- No chance to exceed your one minute
Presentation Booths

- Present your projects to us and other students
- Small tables provided outside NO C 6
- Come early to set up your demo

*Demo not feasible indoors?*

- Prepare a mock-up
- Have slides on your laptop to present project
- Be creative
HTC Desires

- May keep devices until exam
- Return at the office (CNB H 108), not after presentation
- Apply for continuing project