

Energy-Aware Computing Systems (EASY)

Organisation

2020-05-06

Timo Hönig, Stefan Reif, Benedict Herzog

Lehrstuhl für Informatik 4
Friedrich-Alexander-Universität Erlangen-Nürnberg



Lehrstuhl für Verteilte Systeme
und Betriebssysteme



FRIEDRICH-ALEXANDER
UNIVERSITÄT
ERLANGEN-NÜRNBERG

TECHNISCHE FAKULTÄT

Exercise organisation

Organisation:



Timo Hönig



Stefan Reif



Benedict Herzog

Timeslot:

- Thursday, 12:15–13:45

Contact:

- Email to organisers: i4easy-owner@lists.cs.fau.de
- Email including students: i4easy@lists.cs.fau.de
- https://www4.cs.fau.de/Lehre/SS20/V_EASY/

Exercise goals

- Research
 - Find, read, and understand relevant literature

Exercise goals

- Research
 - Find, read, and understand relevant literature
- Implement
 - Apply theoretical results in practice

Exercise goals

- Research
 - Find, read, and understand relevant literature
- Implement
 - Apply theoretical results in practice
- Experiment
 - Evaluate approaches in practice

Exercise goals

- Research
 - Find, read, and understand relevant literature
- Implement
 - Apply theoretical results in practice
- Experiment
 - Evaluate approaches in practice
- Understand
 - Find context for your results

Exercise goals

- Research
 - Find, read, and understand relevant literature
- Implement
 - Apply theoretical results in practice
- Experiment
 - Evaluate approaches in practice
- Understand
 - Find context for your results
- Discuss
 - Explain your results

Exercise types

- Blackboard exercises
 - Present material for the assignments
 - Refresh lecture content
 - Participation is strongly encouraged
- Computer exercises
 - Discuss specific questions
 - Participation is optional
- Submission exercises
 - Present solutions of assignments
 - Discuss pitfalls
 - Participation is mandatory
- Literature discussion exercises
 - Discuss literature and recent research topics
 - Participation is strongly encouraged

Assignments

1. Energy measurement

- How does energy measurement differ from time measurement?
- How can we interpret energy measurement results?

Assignments

1. Energy measurement

- How does energy measurement differ from time measurement?
- How can we interpret energy measurement results?

2. Energy models

- How do hardware states and software activities influence the energy demand?
- How to predict energy demand without measuring it?

Assignments

1. Energy measurement

- How does energy measurement differ from time measurement?
- How can we interpret energy measurement results?

2. Energy models

- How do hardware states and software activities influence the energy demand?
- How to predict energy demand without measuring it?

3. Energy-related optimisation

- How to make computing systems more energy efficient?
- What constraints should be considered?

- `/proj/i4easy/pub/`
 - Material for each assignment
- `/proj/i4easy/<login>/`
 - Working directory
- `gitlab.cs.fau.de/i4easy-exercises/ss20/<group>`
 - Centralised git repository, per group

Before the deadline:

- Submit your solution to the `gitlab` repository
 - We will provide the repository on `gitlab.cs.fau.de`
 - This repository is exclusive for your group
- Create a `git` tag to mark the submitted revision
 - “`submission1`”, “`submission2`”, “`submission3`”
- Push the tag to the central `gitlab` repository
 - `git push --tags`

After the deadline:

- Attend the submission exercise
- Present and discuss your results