

# Context-Aware Computing, Übungen (448.057)

**Institut für Technische Informatik**

15.10.2018

# Lecturer

- DI Michael Stocker

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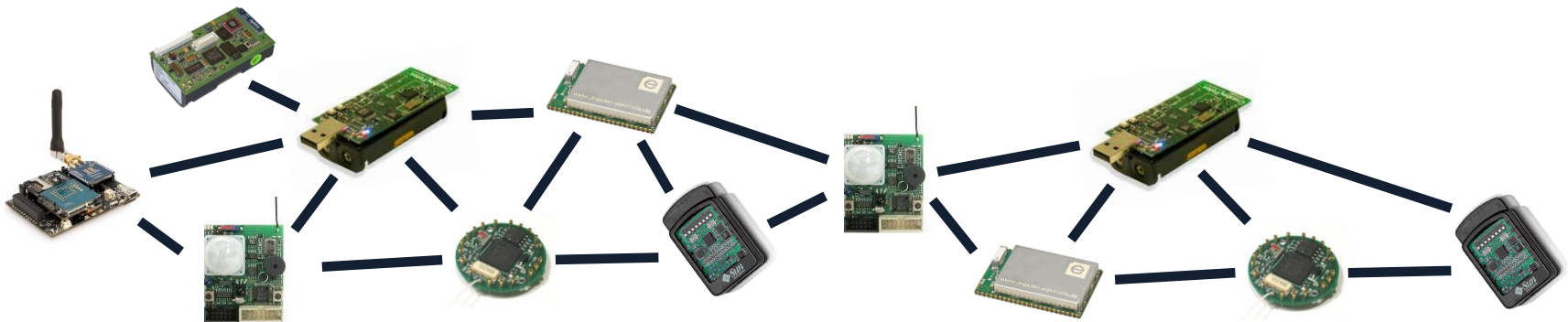
 Office: Inffeldgasse 16/I, E.2.19



since  
2018



- 448.014 Microcontroller, UE
- 448.057 Context-Aware Computing, LU



# Lecturer

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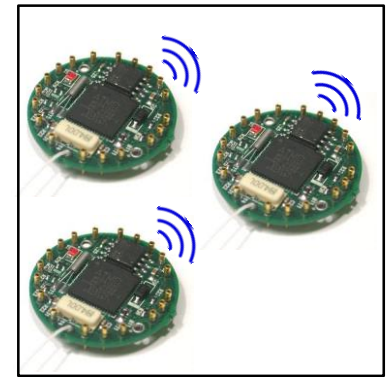
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- Student assistants

- Robert Thomann, BSc
- [r.thomann@tugraz.at](mailto:r.thomann@tugraz.at)

# Context Awareness

- What is this all about?
  - Increasingly complex computer systems
  - Networks of tiny embedded devices embedded into environment and objects
  - Operating in dynamic context
    - Changing environments, system structure, user needs, ...



# Context Awareness

- What is this all about?
  - **CAC** tries to address this challenge
    - Making sure computer systems meet their goals despite dynamic context
    - Self-organizing systems that automatically meet high-level goals
    - Loosely inspired by living organisms
  
- Tightly connected to the lecture (448.056)



[http://en.wikipedia.org/wiki/S-bot\\_mobile\\_robot](http://en.wikipedia.org/wiki/S-bot_mobile_robot)

# Organization of the course

- Five assignments to be implemented in NetLogo  
(NetLogo tutorial comes straight after this course introduction)
- Course participants will be split in groups of two
  - Slot A: 9:00 – 10:30, Slot B: 10:30-12:00
  - NXP Semiconductors seminar room (IE01090)
  - Group and Slot registration will be done at the end of this lecture
    - Choose a slot and write your name on the list
- Group registration
  - Write me an Email with your names and matriculation number
  - Untill Friday, 27.10.2018

# Organization of the course

- **Scheduled calendar**  
(Dates might change according to progress in the lecture)

	<b>Monday, 15.10.2018</b>	<b>Monday, 05.11.2018</b>	<b>Monday, 26.11.2018</b>	<b>Monday, 10.12.2018</b>	<b>Monday, 07.01.2018</b>	<b>Monday, 21.01.2018</b>
<b>Learning Unit</b>	Course Introduction  &  NetLogo Tutorial	Delivery 1 <sup>st</sup> Exercise  &  Tutorial 2 <sup>nd</sup> Exercise	Delivery 2 <sup>nd</sup> Exercise  &  Tutorial 3 <sup>rd</sup> Exercise	Delivery 3 <sup>rd</sup> Exercise  &  Tutorial 4 <sup>th</sup> Exercise	Delivery 4 <sup>th</sup> Exercise  &  Tutorial 5 <sup>th</sup> Exercise	Delivery 5 <sup>th</sup> Exercise  &  Course Evaluation
<b>09:00 - 10:30</b>	(Plenary)					
<b>10:30 - 12:00</b>						

# Organization of the course

## ■ Exercises

- Teamwork of maximum 2 students
- Work on your own laptop (or use TU Graz infrastructure)
- Submit your assignment the day before the next class  
(e.g., Übung 1 must be submitted by Sunday, 04.11.2018 at 23:59 CET)
- A few teams will present their solution in front of the class
  - Groups presenting will be randomly picked
  - Both team members give an overview of their solution
  - Instructors ask questions, and both team members should be able to answer
- No plagiarism!



# Organization of the course

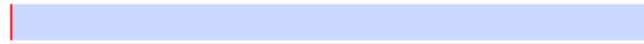
- Submission of exercises
  - Answer questions in PDF
  - Fill out group ID and student names
  - Press “Finalize form”

completely surrounded by other woodchips (i.e., a termite will not remove woodchips that are already in the middle of a pile). Does this affect the overall behaviour of the system? If yes, how?


Answer:



Group ID:



Stud. Names:



[Finalize Form](#)

# Organization of the course

- Submission of exercises
  - Using the TeachCenter
  - Activities → Assignment → Add/Edit submission

TU Graz TeachCenter

Dashboard / Sensor Networks, Labor

## Announcements

Announcements Administrative ▾ Resources **Activities** Communication

Activities

**Submit**

- Netlogo file
- PDF file

## Announcements

Ankündigungen und Nachrichten

### Discussion




448.063 - Sensor Networks, Labor

TU Graz TeachCenter

Dashboard / Sensor Networks, Labor

## Activity Items

Announcements Administrative ▾ Resources Activities Communication

Name	Last modified
Assignment	
 exercise1	04.05.2017 11:22
 exercise2	04.05.2017 11:27
 exercise3	04.05.2017 11:28

# Organization of the course

- Submission of exercises
  - Using the TeachCenter
  - Activities → Assignment → Add/Edit submission

TU Graz TeachCenter

Dashboard / Sensor Networks, Labor

exercise1

Announcements


Administrative ▾

Resources


Activities

Communication

exercise1


[tut\\_cboano\\_Assignment\\_01.pdf](#)

Submission status

Submission status	No attempt
Grading status	Not graded
Due date	Friday, 5 May 2017, 12:00 AM
Time remaining	12 hours 30 mins
Last modified	-
Submission comments	 <a href="#">Comments (0)</a>

Add submission

Make changes to your submission

Submit

- Netlogo file
- PDF file

# Organization of the course

- Submission of exercises
  - Using the TeachCenter
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Dashboard / Sensor Networks, Labor


## exercise1

Announcements
Administrative ▾
Resources
Activities
Communication

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exercise1

Submission status

Submission status	Submitted for grading
	This assignment is not accepting submissions
Grading status	Graded
Due date	Tuesday, 23 May 2017, 11:55 PM
Extension due date	Tuesday, 23 May 2017, 11:55 PM
Time remaining	19 days 12 hours
Last modified	Thursday, 4 May 2017, 11:32 AM
File submissions	 <a href="#">ex1_studentname.zip</a>
Submission comments	▶ <a href="#">Comments (0)</a>

## Problems uploading?

- Send the code to [michael.stocker@tugraz.at](mailto:michael.stocker@tugraz.at) or to [r.thomann@tugraz.at](mailto:r.thomann@tugraz.at)
- before the deadline!

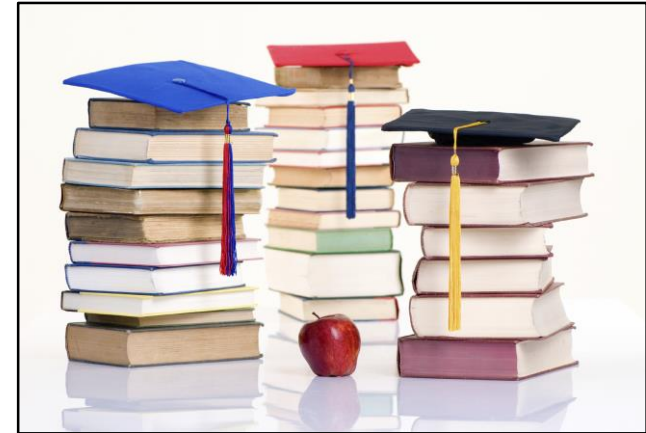
# Grading

- 50 points in total
  - 10 points for each of the five assignments
    - Late submission (within 5 days): max 5 points
  - Bonus points for the presentations
    - Up to 2 bonus points per presentation
    - Each group can present at most 2 times
- Final grade
  - 1 > 44 points
  - 2 > 37 points
  - 3 > 31 points
  - 4 > 25 points
  - 5 ≤ 25 points



# Communications

- Important announcements will be sent out via e-mail
- Newsgroup [tu-graz.lv.cac](mailto:tu-graz.lv.cac)
  - Questions of general interest
  - No solutions!
- Other questions
  - Knock my door or (even better) send me an e-mail!



# Questions?

