

# Graduate Program Computer Science

kick-off meeting

Mark van den Brand



**TU** / **e**

Technische Universiteit  
**Eindhoven**  
University of Technology

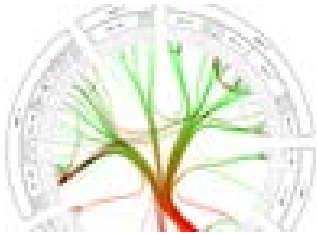
**Where innovation starts**

# Kick-off: schedule

- **welcome; short intro to the CS graduate program (common issues and rules)**
- **intro to all master programs/tracks (separately)**



# CS Department: who are we?



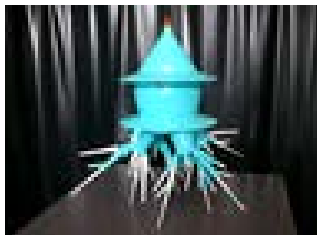
## Algorithms and Visualization

- Algorithms
- Applied Geometric Algorithms
- Visualization



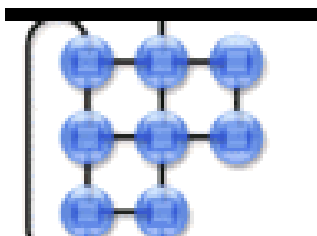
## Information Systems

- Architecture of Information Systems
- Data Mining
- Web Engineering



## Model-Driven Software Engineering

- Formal Systems Analysis
- Software Engineering and Technology



## Security and Networked Embedded Systems

- Security
- System Architecture and Networking

# Graduate program Computer Science

## Master Programs

- Business Information Systems (BIS)
- Computer Science and Engineering (CSE)
- Information Security Technology (IST)
- Data Science in Engineering (DSE)
- Embedded Systems (ES)
- EIT tracks
  - Embedded Systems
  - Data Science

Honors Program



Honors Academy



PDEng

2 years

PhD

4 years

Targeted at top students (average grade at least 8)

- Two research projects in 2<sup>nd</sup> and 3<sup>rd</sup> semester
- 1 day/week on top of regular program

# Graduate Program CS: the people



**Mark van den Brand**  
director Graduate Program



**Alexander Serebrenik**  
vice-director Graduate Program



**Natasha Stash**  
study advisor  
internship coordinator  
coordinator premaster



**Elmar Veenendaal**  
coordinator international  
exchange programs



**Mark de Berg**  
coordinator honors programs



**Julien Schmaltz**  
program manager CSE



**George Fletcher**  
program manager DSE



**Boris Skoric**  
program manager IST



**Dirk Fahland**  
program manager BIS



**Bas Luttk**  
program manager ES  
program manager EIT-ES



**Renata Medeiros de C.**  
program manager EIT-DS



# Graduate Program: the people

## Mentors

- each student gets a staff member as mentor
- mentor assignments *depends on 2IMCxx !*  
(the student-mentor assignment depends on your *master program* and possibly *stream*)
- Who is your mentor
  - Check the study guide <http://tiny.cc/CSGP2017>
  - OSIRIS: Co-lecturer (but not Alexander Serebrenik)

# Graduate Program: mentor vs study advisor

## The mentor assists you in:

- professional skills <https://skillslab.tue.nl/C349-TUe-SkillsLab.html>  
4 tests + *create and execute a development plan*
- declaration of scientific integrity (important!)
- making choices (elective courses that prepare you for the specialization area & supervisor you want)
- preparing for international experience

## The study advisor + internship coordinator:

- approval of your study program (coherence check)
- approval of an internship proposal
- permission to start the masters project



# About Studying and Assessment

- **2 years, 4 quartiles per year, 8 weeks per quartile + 2 exam weeks, 15 ects (3 courses) per quartile**
- **1 ects = 28 hours of work (for the “average” student); 60 ects = 1680 hours; 1680 hours in 40 weeks = 42 hours per week**
- **you MUST register for courses AND for exams (not assignments)**
  - **you SHOULD register for courses 3 weeks before the start of the quartile (this helps in planning room sizes)**
  - **you SHOULD unregister for courses within the first 2 weeks if you want to discontinue following a course**
  - **you MUST register for exams for all courses that end with an exam (not for courses ending with assignments)**

# About Studying and Assessment

## Rough indication of grading:

- 8 is a really good grade, translates roughly to A
- 9 and 10 are exceptionally good grades, A+ and A++
- 7 is like a B
- 6 is the minimum passing grade, like C with anything less than 6 being a fail

**Failing a course once is not immediately a disaster: there are “resits”, one quartile later (or in interim)**

- only your highest grade for a course appears on the final grade list (you can take a resit even when you pass a course, to go for a higher grade)
- all grades must be 6 or higher to pass the whole master
- average 8 and final project 9 = cum laude

# Notebooks

- The TU/e expects an active participation of her students and assumes that students have a good notebook for educational purposes: exercises, exams, etc.
- If you do not have a TU/e notebook, you have to make sure that your notebook fulfills the TU/e HW requirements in order to run educational SW
- The GPU should allow the installation of the following packages, such as:
  - Revit
  - Autocad
  - Unigraphics NX10
  - SolidWorks
- In order to get support of ICTServices:
  - Dutch or English operating system (Windows, MacOS, Linux)
  - Installed and active virus scanner
  - Active and correctly working fire wall
  - Keyboard layout: English or international English
- TU notebook reduction program:  
<https://educationguide.tue.nl/studying/services/notebook-reduction-program>

# CS honors program and academy

- **CS honors program:**
  - 12 ec on top of regular program
  - consists of two research projects (6 ec each), each in a different research group of the CS department
  - applications in February (via prof. Mark de Berg)
  - targeted to excellent students (avg grade at least 8 for first two quarters)

# CS honors program and academy

- **Honors Academy:**
  - 20 ec in total, on top of regular program
  - contents: 5 ec personal leadership, 15 ec professional development (see slides for examples)
  - targeted to motivated students who want (and can handle) an additional challenge

## Application for Honors Academy

- You must prove to be among the top of your class
- Motivation letter (**deadline 13<sup>th</sup> of September**) and interviews (**18<sup>th</sup>-20<sup>th</sup> of September**)
- Tentative plan for your professional development
- There is also an option for February (interesting for foreign students)



# International Experience

- every CS master is encouraged to have international experience
  - some have this experience when they start (great!)
  - some still need to get this experience during the master
    - courses / internship at a company, research institute or university abroad
  - discuss with your mentor *what* you want to do; the mentor will direct you to *where* you can then go and *who* can help you with practicalities
  - the international activity should not interfere with your study progress: don't miss exams, don't plan a stay that does not fit our quartile system
  - the international experience needs to be *at least* 15ec (e.g. courses, internship) but can be more (e.g. masters project)

# Nov 23: GEWIS lunch



# Master's project

- Final 6-month project
  - ES: with an additional preparation phase
- Involves theory, practice, design, or combination
- Perform at the university or in industry
- Consider going abroad

**ASML**

adver  
s i t e  
m e n t

de lage landen 

**NXP**



**grexx** 

**perceptive**software

**Deloitte.**

**TEIJIN**

*Human Chemistry, Human Solutions*



**magnaview**

visualize anything • visualize everything



**PHILIPS**

**CORDYS**





# Get Involved: influencing the program

- let us know what you like/dislike about courses: *every course is followed by an evaluation questionnaire; please give us your feedback!*
- **GEWIS** has an education officer: [co@gewis.nl](mailto:co@gewis.nl) who communicates directly with the management
- you can also approach the GP management directly
- you can (volunteer to) participate in the educational committee for your master program and influence the future direction

# ENJOY YOUR STUDIES at TU/e !



Embedded Systems EIT ES	AUD 3 (here)	Computer Science and Engineering	AUD 2
Data Science in Engineering EIT DS	AUD 1	Business Information Systems	MF
Information Security Technology		MF	