

Vienna PhD School of InformatICS

Social Event Oct 3, 2019

Andreas Steininger



PHD EDUCATION AT OUR FACULTY

common roof formed by
Vienna PhD School of Informatics

different ways of doing a PhD at our faculty

Doctoral Colleges

- Resilient Embedded Systems
- LogICs
- TrustRobots
- Smart Industrial Concept!

Teaching Assistants

4 year univ contract
teaching load

Research Assistants

project contract
reporting load

Self-Funded PhDs

...

different areas, institutes, different supervisors, ...



VIENNA PHD SCHOOL OF INFORMATICS

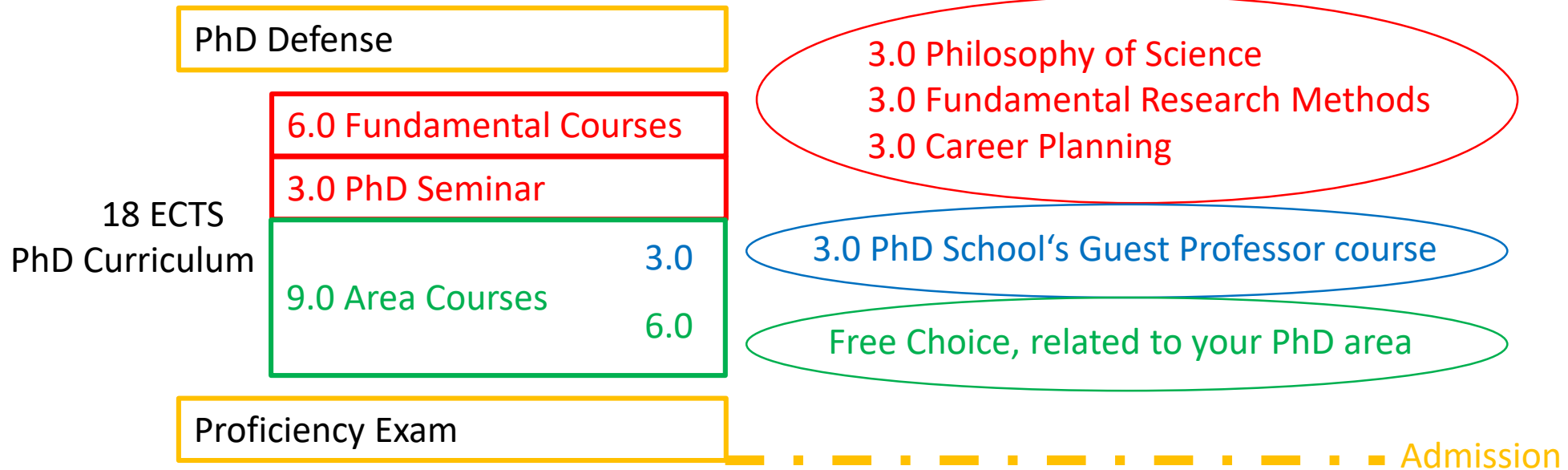
➤ **Mission:**

- ✓ simplify the processes, maintain a high standard in PhD education

➤ **Services** (in tight cooperation with the Deans of Study Affairs):

- ✓ implement the basic curriculum common to all PhD tracks (mandatory lectures)
- ✓ organize guest lectures (selection, invitation, operation...)
- ✓ organize special courses in house (Current Trends in CS, Proposal Writing)
- ✓ maintain unified interface to the outside (webpage, PhD submissions)
- ✓ stimulate teambuilding (social events)
- ✓ provide aid to PhD students (visa, lodging, problems with supervisor,...)
- ✓ direct applications to potential supervisors, support hearings

Course Overview



As a reminder: In total minimum 18 ECTS required

- **fundamental courses**

- Philosophy of Science
 - Research & Career Planning for Doctoral Students
 - Fundamental Research Methods for Doctoral Students
- min 6 ECTS, min 1 methodology*

- **area courses**

- PhD seminar, type 3 ECTS
 - visiting professor courses, min 3 ECTS
 - own choice of courses related to research area
- min 12 ECTS, at most 6 ECTS seminar or PV*

submission of plan after proficiency exam; need approval!



- Information of the Dean's Office about Doctoral Study Process

<http://www.informatik.tuwien.ac.at/dekanat/doktoratsstudium-neu>

(currently mostly in German, English version in preparation)

- Standard Procedure for Doctoral Program at the Faculty of Informatics

<http://www.informatik.tuwien.ac.at/dekanat/doctoral-program-informatics.pdf>

Vienna PhD School of Informatics

Strukturansicht | [Semesteransicht](#)

2019W-2020S (2011U)

2019W | Studienjahr anzeigen

Titel	Anm.Bed.	Stunden	ECTS
Vienna PhD School of Informatics			
Fundamental Courses			20.0
VU Philosophy of Science			3.0
195.080 VU 2019W Philosophy of Science		2.0	3.0
VU Innovation			3.0
VU Research Methods in Computer Science			3.0
VU PhD seminar			3.0
VU Fundamental research methods for doctoral students		2.0	3.0
SE Research and Career Planning for Doctoral Students		2.0	3.0
VU Research and Career Planning for Doctoral Students		2.0	3.0
195.098 VU 2019W Research and Career Planning for Doctoral Students		2.0	3.0
VU Being a Researcher		2.0	3.0
199.086 VU 2019W Being a Researcher		2.0	3.0
Area Courses			21.0
VU PhD Primary Area Computer Engineering Introduction			3.0
VU Foundations of Data and Knowledge Systems			3.0
VU Introduction to Media Informatics and Visual Computing at VUT			3.0
VO Foundations of Business Informatics			3.0
VU Advanced Topics in Service-oriented and Cloud Computing		2.0	3.0
VU Model Checking		2.0	3.0
VU Discrete Mathematics and Probability			3.0
VU Formal Methods			3.0
VU Linear Algebra			3.0
VU Algorithms			3.0
VU Shape from function methods			3.0
VU Differential Equations			3.0
VU Computational Geometry and Topology			3.0
VU Computational Complexity			3.0
VU Essence of Cloud Computing			
VU Hybrid Systems		2.0	3.0

- **Research and Career Planning for Doctoral Students,**
course 195.098 (same course as 184.778)
Prof. Georg Gottlob
tentative schedule: Oct 21/22 and Dec 9 – 13
course webpage: <https://www.dbai.tuwien.ac.at/education/rcp/>

- **Philosophy of Science,**
course 195.080
Prof. Matti Tedre
schedule: course start Oct 28 with learning & reading assignments,
face to face Dec 2-6

- **Being a Researcher,**
course 199.086
Prof. Carlo Ghezzi
schedule: Nov 25-29, Dec 17/18 tbc, Jan 20-24



- All VU 3.0
- Currently no area course planned in winter term 2019

Preview about **area courses by Guest Profs** for summer term 2020:

- **Reachability Analysis Techniques for Hybrid Systems**
Prof. Erika Abraham, RWTH Aachen / Germany
schedule: March 1 – 10, 2020
- **Resilient Embedded Systems / Dependable Systems (tentative)**
Prof. Paulo Verissimo, University of Luxembourg
schedule: to be announced
- **Epistemic Logic (?)**
Prof. Hans van Ditmarsch, *LORIA / France*
tentative schedule: June 2020



Additionally we have invited the following renowned professors to give a course during summer term 2020:

- **Research area: Human Computer Interaction**

Prof. Jaime Sanchez, *University of Chile*

- **Research areas: IOT, Blockchain technologies, connected and autonomous vehicles,...**

Prof. Bhaskar Krishnamachari, University of Southern California

... and others...

Current Trends in Computer Science (VU 1.5, 195.072)

Ring lecture with talks given by the visiting professors of the current study year

offered throughout winter and summer term

requirements for positive grade

- Preferably students should attend 4 (or more) talks (any semester)
- write a report covering 3 talks
 - with 2 pages each, if 4 talks attended
 - for students who can only attend 3 talks, this summary must comprise at least 3 pages for each talk.

Talks already scheduled:

Nov 7, Martin Gaedke, TU Chemnitz / Germany

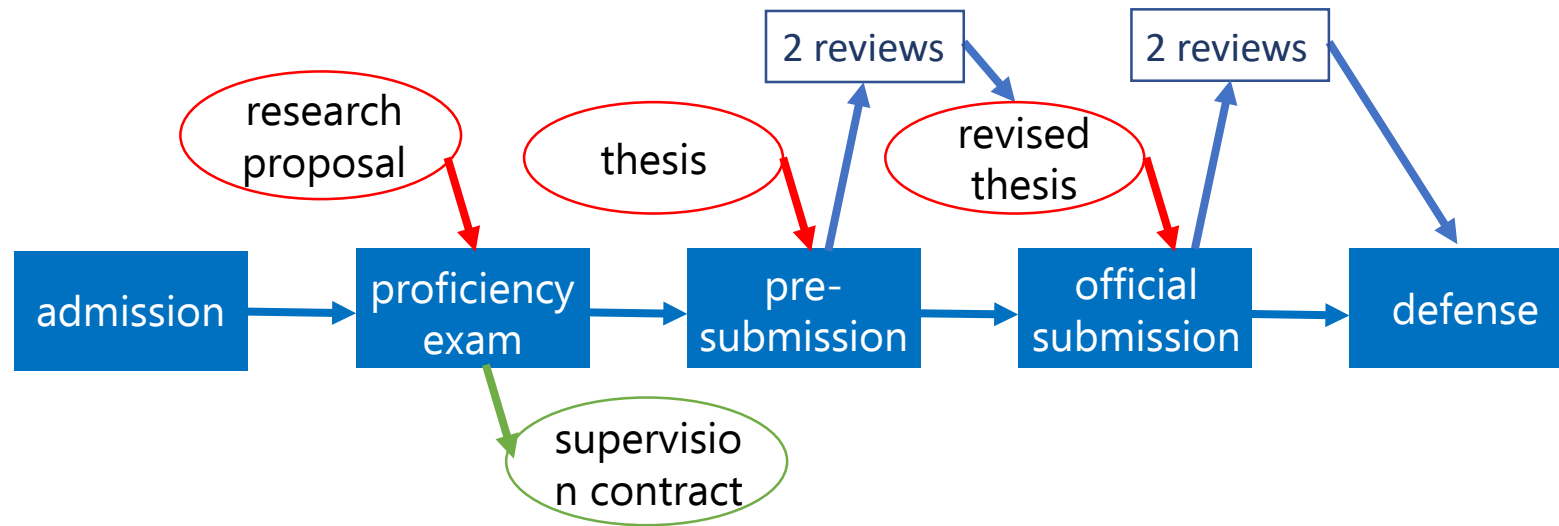
Nov 25, Carlo Ghezzi, Politecnico di Milano / Italy

Open Problems in Computer Vision (VU 3 ECTS, 183.292)

Already started, but still places available for PhD students in the area of Visual Computing

- Objective is to help students to write a publication
- Synchronously the Computer Vision Winter Workshop will be offered (as every year in Feb)
Further information available here: <https://cvww2020.vicos.si/>

This course is not organized by the Vienna PhD School of Informatics. For questions please contact the lecturer Prof. W. Kropatsch.



- effective since March 1st, 2015

- for those students

who announced their doctoral thesis on March 1st, 2015 or later,
who enrolled in doctoral studies for the first time after March 1st, 2015

Doctoral College Resilient Embedded Systems

- We offer 4-year funding for 7 PhD positions
- DC-Res is run jointly by **TU Wien's Faculty of Informatics** and **FH Technikum Wien**
- Main research topics:
 - Digital circuits and hardware architectures
 - Dependable, real-time systems
 - Hybrid systems and optimal control
 - Quantitative and runtime verification
 - Computational modeling and simulation
 - Autonomous systems, robotics and automation systems integration
 - Control networks design
 - Cyber-physical social systems & (Industrial) Internet of Things
- 3rd Call for Applications will open in late 2019.
<https://informatics.tuwien.ac.at/dc-resilient-embedded-systems>



CALL FOR 4-YEARS FUNDED DOCTORAL POSITIONS

Resilient Embedded Systems

Research Topic Domains:

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WienTourismus/Thomas
doctoral college

RESILIENT EMBEDDED SYSTEMS

<http://www.informatik.tuwien.ac.at/go/dc-res>



HOW TO APPLY - The prerequisite for becoming a PhD student is a finished master degree or equivalent, preferably with distinction, in the fields of Computer Science/Informatics, Computer Engineering, Electrical Engineering or Information Technology. More details, including the application procedure can be found at the webpage.

APPLICATIONS MUST BE SUBMITTED BY MARCH 24, 2019, 23:59 (CET).

After a first round of review, selected candidates will be invited for a hearing, in which they get an opportunity to present their research plans and to get in touch with potential advisors. Travel costs will be covered.

- The hearings will be scheduled for April 24 - May 7, 2019.
- A final decision will be made mid of May 2019.
- The Resilient Embedded Systems doctoral program starts in October 2019.

Successful candidates will receive an employment from the hosting institution (TU Wien or FH-Technikum Wien) following the standard salaries for FWF projects, 29.573,60 € gross salary per year (<https://www.fwf.ac.at/en/research-funding/personnel-costs>). We explicitly encourage female candidates to apply. Preference will be given when equally qualified.



TU Wien is among the most successful technical universities in Europe and is Austria's largest scientific-technical research and educational institution. For 200 years, TU Wien has been a place of research, teaching and learning in the service of progress. Among TU Wien's eight faculties, the Faculty of Informatics is a very young, innovative and dynamic one. It is consistently ranked among the top Computer Science faculties worldwide.



The University of Applied Sciences FH-Technikum Wien focuses on bachelor's and master's degree programs in various technological domains. These are based on a solid scientific foundation with a high degree of industrial relevance. Predominant projects like the Josef Ressel Center for Verification of Embedded Computing Systems contribute to the state-of-the-art in tight cooperation with the Austrian industry.



The Resilient Embedded Systems doctoral program is funded by the Austrian BMBWF and runs jointly by TU Wien and FH Technikum Wien.

Elective courses, not to be counted for the 18 ECTS of our doctoral program

Workshops, training sessions, info events related to “Publishing and Open Science”

Program for the winter term:

- ~~Data management and research ethics, Oct 1~~ -> already passed!
- Open access, free of charge: self-archiving. Secondary publication of publications in repositories, Nov 12
- Open access, free of charge: self-archiving. How to publish in open access via a repository, Nov 12
- ORCID and your digital identity as a researcher, Nov 26
- How your publications are assessed: overview of biometric indicators
- An overview of open access publishing. Current developments and options available for researchers (appointment via e-mail open-access@ub.tuwien.ac.at)
- Publishing with TU Wien Academic Press (appointment via e-mail academicpress@tuwien.ac.at)

Detailed information on the content and how to register here:
<http://www.ub.tuwien.ac.at/einfuehrungen.php#termine>

You want to receive information about future social events

- please register here:

https://inn.tuwien.ac.at/socialevents_doctoralstudents

Thank you!