

**Department of Computer Science (D-INFK)  
Detailed stipulations regarding the doctorate**

of 27 January 2022

*This English translation serves information purposes only and has no legal force. The original German version is the legally binding document.*

*The ETH Zurich Executive Board,*

at the request of the Department of Computer Science<sup>1</sup> at ETH Zurich, and pursuant to Art. 52 of the ETH Zurich Ordinance on the Doctorate of 23 November 2021<sup>2</sup>,

*hereby decrees the following detailed stipulations regarding the doctorate:*

**Section 1:                   General provisions****Art. 1       Scope and purpose**

<sup>1</sup> These detailed stipulations set out the department-specific provisions governing the doctorate at the Department of Computer Science (D-INFK) at ETH Zurich. They are based on the fundamental provisions of the ETH Zurich Ordinance on the Doctorate of 23 November 2021<sup>3</sup> and on the Rector's Implementation Provisions for the ETH Zurich Ordinance on the Doctorate of 23 November 2021<sup>4</sup>.

<sup>2</sup> The measures described below are intended to enhance the quality assurance of doctoral theses at D-INFK. The deciding factors for the quality of doctoral theses are doctoral students, their supervision and the project topic.

**Section 2:                   Recruitment and admission to the doctorate****Art. 2       Recruitment**

<sup>1</sup> Professors recruit their doctoral students. Appointment is possible at any time during the year.

<sup>2</sup> For direct doctorate students, the deadlines and requirements of the direct doctorate programme apply.

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<sup>1</sup> Resolution of the D-INFK Department Conference of 27 September 2021 (approval of the detailed stipulations)

<sup>2</sup> SR 414.133.1

<sup>3</sup> SR 414.133.1

<sup>4</sup> RSETHZ 340.311

### **Art. 3** Admission

<sup>1</sup> Applicants submit their application documents to Academic Services. Application is possible at any time; there are no deadlines.

<sup>2</sup> Admission to the direct doctorate programme is only possible once a year, at the start of the Autumn Semester.

### **Art. 4** Doctoral plan

<sup>1</sup> Each doctoral student must compile a doctoral plan. An electronic copy of the plan must be submitted to the doctoral committee 11 months after provisional admission at the latest, for the attention of the aptitude committee and the D-INFK Doctoral Administration.

<sup>2</sup> The doctorate plan must provide details of the following:

- a. aim of the doctoral thesis and the problem it addresses
- b. positioning in the scientific context
- c. planned work package
- d. corresponding publications
- e. timeline
- f. teaching tasks
- g. provisional curriculum involving the mandatory 12 ECTS credits
- h. other duties

<sup>3</sup> Detailed information regarding the structure and content of the doctoral plan, including a template, is available in the document "D-INFK Guidelines for Doctoral Plan".

<sup>4</sup> The doctoral committee may reject doctoral plans if they fail to satisfy the form and content requirements. Doctoral students then have a week to revise the doctoral plan.

### **Art. 5** Aptitude colloquium

<sup>1</sup> All doctoral students must undergo the scrutiny of an aptitude colloquium within 12 months of provisional admission. Direct doctorate students must complete the aptitude colloquium process within 12 months of receiving the Master's degree.

<sup>2</sup> The aptitude committee comprises the supervisor, the second advisor and a representative of the doctoral committee, or another person named by the doctoral committee as chairperson. The latter must be a member of the D-INFK Professor's Conference. At least one aptitude committee member must be a full or associate professor. The doctoral committee may name further persons who are also qualified to be examiners.

<sup>3</sup> The aptitude colloquium consists of a 20-minute presentation of the research plan by the doctoral student, followed by a discussion in which the aptitude committee asks questions. The aptitude colloquium lasts at least 45 minutes.

<sup>4</sup> After the colloquium the aptitude committee decides the outcome and declares it «passed» or «failed». The chairperson must write a written report of the examination. A failed colloquium may be repeated once; any repetition must take place within three months of the release of the result of the first attempt. If the doctoral student fails decisively, Academic Services will decree dematriculation.

### **Section 3: Supervision of the doctorate**

#### **Art. 6 Supervisor**

The supervisor must be a D-INFK full or associate professor, assistant professor or adjunct professor.

#### **Art. 7 Second advisor and further advisor**

The supervisor designates a second advisor in agreement with the doctoral student. This person must be named by the time the doctorate plan is submitted at the latest. The second advisor can be an ETH professor, an adjunct professor, a *PrivatdozentIn*, a Senior Scientist or an external expert of equivalent rank. The same applies to any further advisor.

### **Section 4: Regular doctoral studies**

#### **Art. 8**

To acquire credits, at least one course/activity must be completed in each of the categories listed below.

- a. Consolidation of knowledge in the research area
  - Courses at Master's or doctoral level at ETH Zurich or the University of Zurich (UZH)
  - D-INFK institute/doctoral colloquia (with presentation)
- b. Transferable skills
  - At least 1 credit by attending a course/event on the topic of ethics and good scientific practice
  - D-GESS and D-MTEC courses/workshops on «social and personal competences». The doctoral committee may approve other courses on request.
  - Didactics courses and the range of Teaching Diploma/Teaching Certificate courses
  - Language courses offered by the Language Center of the UZH and ETH Zurich
  - Participation in bodies/commissions/university groups (minimum duration 1 year)

- c. Integration into the scientific community
  - Summer Schools
  - Conferences outside of ETH with talks/posters

## **Section 5: Doctoral thesis and doctoral examination**

### **Art. 9** Cumulative doctoral thesis

Every published research report must be incorporated into the main text such that the thesis represents a coherent document.

### **Art. 10** Examination committee, naming and approval of co-examiners

<sup>1</sup> The examination committee is composed of the following persons:

- a. the chairperson, who must be a full or associate D-INFK professor
- b. the doctoral thesis supervisor as examiner
- c. one to three co-examiners

<sup>2</sup> The co-examiners must include the following:

- a. one external co-examiner; this person can be an active professor at a university other than ETH Zurich or a person ranked as equivalent to a professor in the same research area, e.g., a senior researcher at PSI, MPI, the Centre national de la recherche scientifique etc. An external co-examiner can also be a person with a doctorate, expertise and recognised publications who is a member of a corporate research institution, e.g., Microsoft Research, Google Research, IBM, Disney Research and others.
- b. at least one independent co-examiner who has experience as a doctoral thesis supervisor

<sup>3</sup> Based on the request and recommendation of the doctoral committee, the Department Conference approves the co-examiners who will take part in the examination as examiners. The doctoral supervisor submits his/her proposal of co-examiners to the D-INFK Doctoral Administration for the attention of the doctoral committee ten days before the Department Conference at the latest. The proposal must contain the following information:

- a. a declaration of any relationships of dependence between the co-examiners and the doctoral supervisor, including research collaborations, former connections in the supervisor/student role and employer/employee relationships
- b. For each external co-examiner, a full curriculum vitae with a list of publications over the last five years

<sup>4</sup> The disciplinary expertise of the co-examiners must correspond to the scientific area addressed in the thesis.

**Art. 11** Procedure before the doctoral examination; submission of examination copies and reports

<sup>1</sup> Eight weeks before the doctoral examination at the latest, the doctoral supervisor sets the examination date in consultation with the doctoral student, the co-examiners and the D-INFK Doctoral Administration.

<sup>2</sup> Registration for the doctoral examination may only proceed with the approval of the doctoral supervisor and in consultation with the co-examiners. Registration must take place at least 15 working days before the examination date via the official Academic Services form.

<sup>3</sup> The examiner and all co-examiners must endorse the doctoral thesis before the examination. They are each required to write a report, which must be submitted to the D-INFK Doctoral Administration at least eight days before the examination. The report should be two to three pages in length and must summarise the main contributions of the doctoral thesis and comment on its quality in terms of scientific content and presentation. If reports are submitted late the doctoral committee may cancel the examination. All D-INFK professors may view the doctoral thesis and the reports before the examination.

**Art. 12** Doctoral examination and presentation

<sup>1</sup> The members of the examination committee are present at the examination either physically or remotely via video link.

<sup>2</sup> The examination consists of a 30-minute presentation of the thesis by the doctoral student followed by a discussion. The chairperson moderates the discussion and ensures that each examiner is able to pose questions. The doctoral examination lasts at least 90 minutes.

<sup>3</sup> The examination is open to all D-INFK scientific employees and official guests, plus any external persons who took part in the doctoral thesis project. At the discretion of the chairperson, attendees who are not members of the examination committee may also ask questions once the official examination is declared over.

<sup>4</sup> After the examination the examination committee decides the outcome. Any D-INFK professor present at the examination may attend these deliberations as an observer.

<sup>5</sup> The examination committee chairperson writes up the minutes of the examination. If the examination committee assesses the examination as «failed», the doctoral student may repeat it within six months.

<sup>6</sup> After passing the doctoral examination, the doctoral student must submit an electronic copy of the final version of the thesis to the D-INFK Doctoral Administration. The Doctoral Administration then prepares a request for the Department Conference at which a vote will take place on approval of the doctoral thesis and the awarding of the doctoral title. A copy of the thesis must be viewable online to all members of the Department Conference at least four days before the Conference. The title and content of a doctoral thesis can no longer be altered after it has been accepted by the Department Conference.

## **Section 6: Final provisions**

### **Art. 13** Transitional provisions

Doctoral students who are completing their regular doctoral studies under the previous regulations in accordance with Art. 65 of the ETH Zurich Ordinance on the Doctorate are subject to the following provisions:

- At least one third of the required credits must be obtained outside the doctoral student's respective research field.
- Credits can be obtained by attending D-INFK doctoral seminars or Master's-level course units, and Master's- or doctoral-level courses of other ETH Zurich departments or the University of Zurich.
- A maximum of 4 credits are awarded for completion of didactics courses and Teaching Diploma/Teaching Certificate courses.
- A maximum of 4 credits are awarded for completion of language courses offered by the Language Center of UZH and ETH Zurich.
- A maximum of 4 credits are awarded for completion of ETH Zurich «management and personal development» courses and/or Summer Schools.
- 1 credit per semester is awarded for participation in one or more ETH Zurich commissions. Members of the ETHZ Academic Association of Scientific Staff (AVETH) who take part in the D-INFK Department Conference receive 0.5 credits per semester or 1 credit per year. A maximum of 2 credits can be recognised towards doctoral studies for these activities.

### **Art. 14** Entry into force

These detailed stipulations enter into force retroactively on 1 January 2022. They replace the detailed stipulations of D-INFK regarding doctoral studies of 20 May 2015.

## **Application of salary rates**

Salary rates for doctoral students are governed by the stipulations set out in Art. 8, Para. 3 of the Ordinance Governing Scientific Employees of ETH Zurich<sup>5</sup>, in association with Section 1 (3) of the Directives for Doctoral Students Employed at ETH Zurich<sup>6</sup>.

Doctoral students at D-INFK are paid a fixed salary. At the first career level (first year) they receive a fixed starting salary. Doctoral student salary grades are set at levels 4 or 5 as listed in Annex 2 of the Ordinance Governing Scientific Employees of ETH Zurich. Differing salary grades within a research group and different grades based on academic performance are not allowed. Doctoral students can be remunerated in the form of a bonus for additional efforts in non-research areas.

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<sup>5</sup> SR 172.220.113.11

<sup>6</sup> RSETHZ 622