

## Regulation concerning the doctoral program in Robotics, Control and Intelligent Systems (EDRS)

**Please note that only the French version is legally binding.**

**Dated March 1, 2022** (*date of entry into force*)

*The EDRS doctoral program Committee,*

taking into account art. 3 al. 3 and 6 al. 2 of the Ordinance on the Doctorate conferred by the Ecole Polytechnique Fédérale de Lausanne of January 26, 1998<sup>1</sup> and 2 al. 4 ch. 3 of the Directives concerning doctoral studies at the Ecole Polytechnique Fédérale de Lausanne of November 21, 2005<sup>2</sup>,

*decrees:*

### 1. Field of Application

The regulation concerning the doctoral program in Robotics, Control and Intelligent Systems (hereinafter: EDRS program) sets forth the rules relating to the study plan of the EDRS program as well as the candidacy exam for the formal admission to start the doctoral thesis in the EDRS program of the EPFL. Furthermore, it reiterates and details the application of certain essential rules concerning the doctorate at the EPFL.

### 2. Study Plan

- 2.1 The study plan of the EDRS program requires **12 ECTS credits** (European Credit Transfer and Accumulation System).
- 2.2 Among the 12 ECTS credits requested:
  1. at least **4 ECTS credits** must be obtained during the first year of doctoral studies;
  2. at least **4 ECTS credits** must be obtained by taking EPFL doctoral courses;
  3. at least **4 ECTS credits** must be chosen from the EDRS program course offer or from the corresponding list of suggested courses available on the EDRS website (see EDRS Course book).
- 2.3 Up to **4 ECTS credits** – but not those required for the first year – can be chosen by the doctoral candidate from all EPFL doctoral course books (including transferable skills courses) without the approval of neither the program Committee nor the thesis Director (Doctoral commission decision, Cdoct 107, May 2015).

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<sup>1</sup> RS 414.133.2

<sup>2</sup> EPFL LEX 2.4.1

- 2.4 The ECTS credits may be obtained by passing EPFL courses at the Doctoral, Master or even Bachelor level (the latter requiring a motivation letter duly approved by the EDRS program Director). For courses passed at another Swiss or foreign university, the credit equivalence is determined on a case-by-case basis by the EDRS program Director. The credits acquired outside EPFL are among the 8 ECTS credits, which require the approval of the thesis Director. Finally, in the absence of an assessment to validate the external credits, the EDRS doctoral program Committee will organize an assessment at EPFL.

### **3. Candidacy Exam**

- 3.1 To be formally admitted to start a doctoral thesis at the EPFL, the doctoral candidate must successfully pass the candidacy exam at the end of the 1<sup>st</sup> year of doctoral studies (art. 6 and 8 al. 1 let. a of the Ordinance on the Doctorate and art. 8 al. 1 and 2 of the Directive concerning doctoral studies at the EPFL). The candidacy exam involves prior submission of the research plan (guidelines for the research plan are available on the EDRS website) as well as an oral presentation of approximately 30 minutes about the research proposal, followed by questions from the jury. The candidate must demonstrate the originality of the thesis subject, the objectives and methods envisaged, as well as the hypotheses and related scientific arguments, including the general context of the thesis subject, the state of the art of research in the area, the position of the planned work within the research area, the plan and the methodology for the research project as well as the timeframe for its completion. The progress achieved during the first year must be included in the research plan as well.
- 3.2 The jury of the candidacy exam is composed of the following members:
1. The jury President, Professor or MER affiliated to the EDRS program and external to the laboratory of the candidate;
  2. The thesis Director of the candidate and co-Director, if applicable;
  3. An expert, Professor or MER of EPFL, external to the laboratory of the candidate;
  4. An additional expert is allowed by the EDRS program. This optional expert must have a doctorate and be external to the laboratory of the candidate.
- The jury proposal must be approved by the EDRS program Director.
- 3.3 The jury deliberations process takes place without the candidate. The jury President aims at obtaining a unanimous consensus around the decision. If the decision is not unanimous, a vote is requested and the majority vote wins. If the vote results in a tie, the jury President takes the final decision. All jury members must vote, abstentions are not accepted. After deliberations, the President verbally informs the candidate of the result of the candidacy exam. An electronic copy of the signed evaluation form, including the decision and possible recommendations, is transmitted to the candidate and to the jury members by the EDRS program upon reception from the jury President. The candidate finally receives from the EPFL, a decision to formally accept or refuse the start of a doctoral thesis at the EPFL (art. 8 al. 2 of the Ordinance on the Doctorate).
- 3.4 In case of failure of the first candidacy attempt, the candidate has the possibility to re-take the exam. The jury composition of the re-take exam is in principle the same as that of the first attempt; however, the jury President of the re-take exam must be a committee member of the EDRS program. If this is not the case at the first attempt, an EDRS committee member will replace the original jury President, who then will become a second expert. In this case, no additional optional expert is accepted. The jury proposal of the re-take exam must be approved by the EDRS program Director as well.

## 4. Annual Report

During the thesis work, the doctoral candidate has the obligation to submit an annual progress report each year, the first time during the year following the candidacy exam. The candidate submits a summary of the work progress, as well as a point-by-point self-evaluation. In parallel, the thesis Director (and co-Director when applicable) complete an analogous assessment of the work progress. After a joint discussion the report is cosigned by the candidate and the thesis Director (and co-Director when applicable). The candidate then also discusses the progress and wider context with the mentor and they confirm to have met in the annual report, without reporting the content of the discussion which is confidential. Finally, the program Director will add their signature to the report. The candidate ensures that the above process is finalized within one month (art. 10 al. 3 and al. 4 of the Ordinance on the Doctorate at the EPFL).

## 5. Mentoring

- 5.1 Within 3 months after enrolment, the doctoral program assigns a mentor from its pool to each doctoral candidate. The candidates may change mentor with the agreement of the program Director. The mentor remains anonymous with respect to the thesis Director to ensure confidentiality (it is up to the candidate to keep this anonymity or not).
- 5.2 The mentor offers guidance to doctoral candidates regarding academic or career choices, as well as the resolution of any difficulties met within the context of their training, in particular regarding the preparation of their thesis or cases of conflict.
- 5.3 The candidates can contact their mentor whenever they deem it necessary. The candidate and the mentor confer at least once a year as part of the annual report. Exchanges between candidates and their mentor should remain confidential unless both parties agree to disclose to the program Director.
- 5.4 It is recommended that the candidate's mentor does not participate in nor presides over the jury for either the candidacy or the oral exam.

## 6. Final Provisions

The present regulation shall take effect on March 1, 2022, and replaces any prior EDRS doctoral program regulation.

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