



*Internal Regulation of the Faculty of Electrical Engineering of the Czech Technical University in Prague has been approved by the Academic Senate of the Czech Technical University in Prague on 31 January 2018.*

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*Chair of the Academic Senate of the Czech Technical University in Prague*

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## **DOCTORAL STUDY CODE FOR THE FACULTY OF ELECTRICAL ENGINEERING OF THE CZECH TECHNICAL UNIVERSITY IN PRAGUE**

This internal regulation of the Faculty of Electrical Engineering (hereinafter referred to as "FEE") provides details of doctoral degree study programs accredited at FEE, in accordance with Art. 20 of the Study and Examination Code for Students of the Czech Technical University in Prague (hereafter "CTU").

### **Article 1 Definitions**

In this regulation, the following abbreviations and terms are used:

Doctoral student – a student registered in a doctoral study program  
DS – Doctoral Study  
DSP – Doctoral Study Program  
Impact factor journal – a journal in the WoS SCI–Expanded database  
ISP – Individual Study Plan  
BB – Branch Board for a Doctoral Study Program  
OSR – Office for Science and Research  
SDE – State Doctoral Exam  
BC – Bursary Code of the CTU  
SEC – Study and Examination Code for Students at CTU

### **Article 2 Organization of Study in the Doctoral Study Program**

1. The organization of study in DSP is laid down by Art. 19 of SEC.
2. Unless stated otherwise by the head of the supervising department, full-time doctoral students are to be present at their workplace in the extent common for academic staff.
3. Following the supervisors' instructions, doctoral students fulfil their responsibilities set by the ISP, perform scientific work, prepare for prescribed exams and work on their dissertations.
4. The head of the supervising department determines the extent and mode of optional practice-teaching by the approval of the doctoral student and supervisor.
5. Doctoral students are obliged to report to the OSR in order to discuss their study matters, if invited by the Dean, the Vice-Dean for Doctoral Study and Research, the BB chairperson, or the supervisor. If a doctoral student repeatedly fails to report

without a sufficient apology in written form, despite having been provably called upon for the meeting, and the result is that the discussion of their study matters cannot be performed for more than 30 days through the fault of the doctoral student, the Dean may end their studies on the grounds of neglect of responsibilities.

6. The contents of forms used in DS are to be determined by the Dean's directive.
7. If a doctoral student or a supervisor does not agree with the BB chairperson, the BB makes the decision.
8. Suspension of studies due to recognized parenting time of student-parents is not included in the period of study, SEC, Art. 3, paragraph 7.

### **Article 3 Scholarship**

1. Doctoral students in full-time DS, who properly fulfil ISP responsibilities, are entitled to be awarded a doctoral scholarship in accordance with § 91 paragraph 5 Act No. 111/1998 Coll. on Higher Education Institutions, and BC. The scholarship is provided in the claimable component laid down by the Rector as per Art. 6 paragraphs 1 and 2 of BC, or as the case may be, in the non-claimable component awarded by the Dean for outstanding results in creative and teaching activities as per Art. 6 paragraphs 1 and 3 of BC. The dean's directive can determine the rules for the non-claimable scholarship component.
2. Other scholarships (specific, social, accommodation) may be awarded and funded from sources specified by Art. 2 paragraph 2 of BC.

### **Article 4 Supervisors and Individual Study Plan**

1. The role of supervisors, their rights and responsibilities are laid down by Art. 23 of the SEC.
2. Requirements for the expertise of supervisors may be determined by the Dean by means of a directive after debating it in the FEE Scientific Council and the FEE Academic Senate in accordance with Art. 23 paragraphs 2 and 4 of the SEC.
3. The supervisors guarantee, in accordance with Art. 23 paragraph 3 of SEC, that the topics they offer have a potential for finding new scientific knowledge suitable for publication in scientific journals and academic conference proceedings.
4. Supervisors shall submit a semestral evaluation of their doctoral students along with their ISP to the BB chairperson via the heads of their supervising departments. Supervisors unambiguously state in the evaluation whether they recommend that the doctoral students continue in their studies, or whether they suggest with justification that the study is ended.
5. ISP put together and approved in accordance with Art. 26 paragraphs 1 and 2 of the SEC and semestral evaluations are to be stored in the information system.
6. The head of the supervising department and the BB chairperson shall express their opinions on the evaluation. Each of them may themselves also suggest with justification that the study is ended.
7. In case the supervisor, the head of the supervising department, or the BB chairperson suggest that the study is ended, the BB shall debate the doctoral student's course of study within one month. The BB may suggest that the Dean

ends the study on the grounds of neglect of responsibilities. The Dean may end the study based on the recommendation of the BB.

8. A pre-arranged part of the doctoral students' professional training may be provided by a supervisor-specialist in accordance with Art. 24 of the SEC.

### **Article 5**

#### **Branch Boards**

1. The role, rights and responsibilities of the BB are laid down by Art. 21 of SEC.
2. Requirements for the expertise of the BB members in accordance with their mission as per Government decree Nr. 274/2016 regarding the Standards for accreditations at institutions of higher education and Art. 21 of SEC may be determined by the Dean's directive after debating it in the FEE Scientific Council and in the FEE Academic Senate.
3. The BB members are academic staff members of at least two departments.
4. A BB chairperson is a guarantor of the DSP. BB members elect the chairperson among themselves, as well as a vice-chair, who deputizes the chairperson during their absence or in case a conflict of interests arises.
5. In case the study program covers more scientific branches, the BB can be divided into expert sections.
6. Each section is directed by an elected vice-person, to whom the chairperson may delegate part of his powers.

### **Article 6**

#### **Study Block**

1. The study block consists of:
  - a) Completion of professional courses as per paragraph 3,
  - b) Language preparation completed according to paragraph 7,
  - c) A written preparation for dissertation and a discussion on it,
  - d) Professional activity supported with publications,
  - e) Optional teaching practice.
2. The extent of responsibilities as per paragraph 1 sections a), d), e) and the degree of their fulfilment is determined in credits. Doctoral students must obtain no less than 30 credits during their study block.
3. Studying professional courses, writing the preparation for dissertation and the discussion on it are scheduled by the ISP for no more than 4 semesters in full-time study and no more than 6 semesters in distant and combined forms of study in accordance with SEC Art. 27 paragraph 11. After this period, no later than the end of the 25<sup>th</sup> month of full-time study or the end of the 37<sup>th</sup> month of distant or combined form of study respectively, doctoral students shall fulfil all the following responsibilities of the study block:
  - Will have completed all compulsory professional courses by successfully passing the respective exams,
  - Will have completed their language preparation as per paragraph 7,
  - Will have obtained the total of 27 credits, of which no less than 3 shall be obtained for publication activity,
  - Will have completed their written preparation for dissertation and successfully presented it during the discussion.

4. Students will have obtained the total of 30 credits, of which no less than 6 shall be obtained for publication activity at least until the submission of their SDE application as per Art.11, paragraph 2.
5. Failure to meet the requirements given in paragraphs 3 and 4 shall be considered a neglect of responsibilities and shall be the grounds for ending the study. Should doctoral students study one part of their study period in the full-time form and another part in the combined form, the Dean shall determine the deadline for ending the study period on deciding the change of the form of study. The proportion of time in full-time and combined study forms, as well as the next dates for discussing the first draft of the dissertation shall be taken into consideration.
6. During the first year of study, doctoral students must obtain at least 8 credits. Failure to meet this requirement shall be considered a neglect of requirements and shall be the grounds for ending their study.
7. Language preparation shall be completed by the English language exam, or shall be substantiated by a language qualification certificate acknowledged by the Department of Languages. As general rule, the exam takes the form of a discussion on the written preparation for dissertation written in the English language.
8. If the written preparation for dissertation is not written in English, the language preparation exam may not take the form of a discussion on it.
9. The grade from the English language exam in the form of a discussion on the written preparation for dissertation is independent of the final agreement or disagreement with the conclusion of the paper.
10. Doctoral students include, by prior arrangement with the supervisor, four to six one-semester compulsory professional courses. The number of credits for courses outside the accredited DSP is approved by the BB chairperson, and each of the courses may have a maximum value of four credits, according to their extent. Professional courses of a foreign university can be included on basis of an inter-university agreement which determines the conditions and organization of this part of study. After ISP approval, the included professional courses become compulsory. Doctoral students may take other optional courses (e. g. language courses), which do not have any credit value.
11. The study block may also include a stay at a research workplace abroad, for which Doctoral students may obtain one credit for each completed 30 days of such a stay, but no more than 6 credits in total for the whole study block. The credits shall be approved by the Vice-Dean for Doctoral Study and Research based on submitting a professional report from the stay and references from the supervisor and the BB chairperson.

## **Article 7**

### **Written Preparation for Dissertation**

1. The contents of the written preparation for dissertation and the form of the discussion thereof are laid down by Art. 27 paragraph 9 of SEC.
2. Doctoral students who have obtained no less than 27 credits shall register for the discussion.
3. Based on the discussion, a board comprising the head of the supervising department, the supervisor, a member of the BB, and the opponents (assessors) appointed as per Art. 27 paragraph 10 of SEC, shall:
  - Agree with the conclusions of the preparation, and thus agree with continuing

- the study as well, or
- Make a request to revise the preparation; doctoral students shall revise and resubmit the preparation for new discussion with a deadline suggested by the BB and approved by the Dean; the new discussion shall take place no later than three months from the date of the unsuccessful discussion, or
  - Disagree with the conclusions of the preparation, having found flaws in its content to be so serious that the doctoral students are unlikely to successfully complete their study; in such a case, the board submits a proposal of study termination to the Dean; the Dean may terminate the study. If the Dean does not terminate the study, the students are asked to revise the preparation (see the instructions above), or the Dean can decide on another supervisor, or about a transfer to another study program – in that case the Dean shall adequately prolong the deadline for new discussion. – not by more than 1 year.
4. Other requirements for the preparation and discussion shall be laid down by the Dean's directive.

### **Article 8**

#### **Teaching Practice**

1. Teaching practice, which is an optional part of full-time doctoral students' ISP in the extent laid down by Art. 26 paragraph 4 of the SEC, may cover the entire period of study on basis of the agreement between the doctoral students and the head of the supervising department, considering the supervising department possibilities. Teaching practice exceeding the extent as per Art. 26 paragraph 5 is only possible with verifiable consent of doctoral students. Courses in which doctoral students shall perform their teaching practice shall be specified in their ISP.
2. Teaching practice on average extent 4 hours per week over the period of 4 semesters on average, may have the value of no more than four credits. Teaching practice in smaller amounts shall have a proportional credit value. In legitimate cases approved by the head of the supervising department, doctoral students may also obtain teaching-practice credits based on creating new learning texts, multimedia teaching courses, and laboratory work. Creating is understood here as an independent creative activity during the preparation of educational texts and aids. Even in such a case, the total amount of teaching-practice credits shall not exceed four.
3. Supervisors shall indicate the type and extent of teaching practice performed in the assessment at the end of the semester, and they shall propose their credit value.
4. Doctoral students shall apply for teaching practice recognition with the BB chairperson at the end of the first year and at the end the study block. They shall indicate the courses taught and their extent in the application form. The application shall be acknowledged by the head of the department responsible for the courses taught. The BB chairperson shall grant the students with credits in their semestral evaluation.

### **Article 9**

#### **Research and Scientific Publication Activity**

1. Doctoral students shall conduct scientific and research activities according to the supervisor's instructions. The results of such activities shall be documented in the form of authorship or co-authorship of professional publications with an affiliation to FEE, which shall have the credit value set by the BB chairperson according to the supervisor's proposal in accordance with Paragraph 3. In case the doctoral

students' supervising department is outside FEE, the students shall state the affiliation with this department as well.

2. The credit value of professional publication activity shall be laid down by the Dean's directive, which may only be issued with approval of the FEE Scientific Council. Doctoral students may choose to have their publication evaluated according to the directive which was valid at the time of their enrolment, or the latest directive, as they wish.

### **Article 10**

#### **Internationalization**

1. Doctoral students have to prove, in agreement with accreditation standards of the Government decree<sup>1</sup>, their internationalization<sup>2</sup>. FEE requires doctoral students to stay at least one month at a foreign institution. The program and place of the stay must be approved by the head of supervising department and the BB chairperson in advance.
2. In case the doctoral students have professional experience from abroad, or for some exceptional reasons, e.g. health or social, the BB can suggest and the Dean approve a substitution as per paragraph 1 – participation in an international creative project whose results are published or presented abroad or some other form of the doctoral students' participation in international co-operation.
3. Fulfilment of internationalization responsibility has to be proved by doctoral students on the submission of the application to dissertation defence at the latest.

### **Article 11**

#### **State Doctoral Exam**

1. The aims and procedure of the SDE are laid down by Art. 29 of the SEC.
2. If doctoral students study the full-time doctoral study program they shall take the exam before the end of the 3<sup>rd</sup> year of study. Should they receive a failing grade, they shall take a make-up SDE no later than the end of the 4<sup>th</sup> year of study. Failure to meet this requirement shall be considered a neglect of responsibilities and shall be the grounds for ending the study.
3. Further requirements for performing the SDE shall be laid down by the Dean's directive.

### **Article 12**

#### **Dissertation Theses**

1. Doctoral students shall submit their dissertations only if they have already published or accepted for publication at least one scientific paper or conference paper:
  - a) in an impact factor WoS SCI-Expanded journal of the quartile Q1, Q2 or Q3 in at least one of the branches in which the journal was included at least once during the last two years before submitting the article, or
  - b) in MathSci Net<sup>3</sup> journal, or
  - c) at an A\* or A ranked conference according to the CORE (The Computing

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<sup>1</sup> Government decree Nr.274/2016 Col., Chapter II., let. H, paragraph I., 3.)

<sup>2</sup> In which English or another world language is preferably used

<sup>3</sup> <http://www.ams.org/mathscinet>

Research and Education Association of Australasia<sup>4</sup>) Conference Rankings.

The article or paper is on a topic relevant to the dissertation topic and the doctoral student is its main author<sup>5</sup>.

2. If doctoral students submit their dissertation in the form of a set of publications and accepted manuscripts provided with linking text, no less than three of such publications shall be scientific papers in impact factor journals. Doctoral students shall be listed as main authors of no less than two of the publications.
3. If doctoral students do not successfully defend the dissertation before the end of the standard study period, after the end of it, their study shall be suspended until their dissertation defence, provided that the maximum study period as per Art. 3 paragraph 8 of SEC, is not exceeded, or if doctoral students do not change their form of study from full-time to combined.
4. The requirements and requisites of dissertation defence shall be laid down by the Dean's directive in accordance with Art. 30, SEC.

### **Article 13**

#### **Termination of Study**

1. Except for the instances specified by the SEC, DS shall be terminated according to this regulation:
  - a) when repeatedly failing to report to discuss study matters as per Art. 2 paragraph 5,
  - b) in case of a negative semestral evaluation of ISP fulfilment as per Art. 4 paragraph 7,
  - c) in case of not reaching the given number and structure of credits during the period of study block and during the first year of study and till the time of submitting the application for SDE as per Art. 6 paragraphs 3 and 4,
  - d) not passing the SDE or make-up SDE scheduled as per Art. 11, paragraph 2,
  - e) in case of not reaching the conditions of internationalization as per Art. 10.

All the instances above shall be considered neglect of responsibilities resulting from the study program according to Art. 34 paragraph 7, letter b), SEC. Doctoral students can lodge an appeal of the decision within 30 days from the termination notice. The Rector is the appellate administrative authority.

### **Article 14**

#### **Provisions to Eliminate Severities**

1. Should the application of this regulation lead to excessive severity, the Dean may make provision to eliminate it and provide for an exception. The Dean shall inform the FEE Scientific Council and FEE Academic Senate about providing for such an exception.
2. The exception may not infringe the limit for maximum time of study, as laid down by Art. 3 paragraphs 8, 9, and Art. 19 paragraph 7, SEC.

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<sup>4</sup> <http://www.core.edu.au>

<sup>5</sup> If doctoral students are not listed as the first authors, then supervisors explicitly define the student's share in the paper in their review for thesis defense. For instance, in mathematical sciences, it is customary to list authors in alphabetical order. The interpretation is the BB competence.

## Article 15

### Transitional and Final Provisions

1. ISP of students approved before this regulation takes effect shall remain valid, including the credit value of courses.
2. To fulfil the condition of Art.12, paragraph 1 it is valid for doctoral students enrolled:
  - a) between 1 March 2007 and 31 August 2012, it is sufficient to publish an article in a reviewed professional journal, provided that the topic of said paper is related to the dissertation topic and the student is the main author,
  - b) between 1 September 2012 and the date from which this DSC became valid, it is sufficient to publish an article in an impact journal, provided that the topic of said paper is related to the dissertation topic and the student is the main author. The student can also meet this condition according to this DSC as per Art.12, paragraph 1b) or 1c).
3. The requirements listed in Art.10 and Art.12, paragraph 1, are valid for all doctoral students enrolled the date from which this regulation became valid.
4. The Branch Board for Study in a Doctoral Study Program (BBP) together with the Branch Board for Study Branches (BBB) serve as the Branch Board in the doctoral study programme P2612 Electrotechnics and Informatics divided into branches accredited before the effective date of the Higher Education Act Nr. 137/2016 Col. Amendment. Their activity and mutual competence are specified in SEC.
5. This code has been approved by the FEE Academic Senate on 19 January 2018.
6. This code comes into effect after the date of the CTU Academic Senate approval.

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Chairperson of FEE AS

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