

Pursuant to the Regulations on Doctoral Studies at the University of Zagreb (Consolidated text adopted on 7 July 2016) and Article 24 of the FER Statute, the Faculty Council of the University of Zagreb Faculty of Electrical Engineering and Computing at its regular session, held on 25 January 2017, passed the following

# **REGULATIONS ON DOCTORAL STUDIES AT THE UNIVERSITY OF ZAGREB FACULTY OF ELECTRICAL ENGINEERING AND COMPUTING**

## **I. GENERAL PROVISIONS**

### **Article 1**

(1) The Regulations on Doctoral Studies at the University of Zagreb Faculty of Electrical Engineering and Computing (hereinafter: Regulations) regulate the organisation and implementation of the postgraduate university study *Electrical Engineering and Computing* (hereinafter: doctoral study) at the University of Zagreb Faculty of Electrical Engineering and Computing (hereinafter: Faculty, i.e. FER).

(2) Issues not regulated in these Regulations shall be directly governed by the provisions of the law and the Regulations on Doctoral Studies at the University of Zagreb.

### **Article 2**

The Faculty is responsible for doctoral studies in the area of technical sciences, scientific field of electrical engineering and scientific field of computing.

### **Article 3**

(1) The Faculty council acts as the Council for doctoral studies and manages the doctoral study.

(2) The Faculty council is responsible for appointing the committee for doctoral qualifying examination, committee for dissertation draft evaluation (synopsis, topic) and mentor appointment proposal (hereinafter: committee for dissertation topic evaluation and mentor appointment proposal), dissertation evaluation committee and dissertation defence committee.

(3) Vice Dean for research is *ex-officio* head of the doctoral study.

(4) Board for doctoral studies (hereinafter: Board) is a standing working body of the Faculty council.

(5) The documents for the regular meetings of the Board shall be received no later than five working days before the meeting.

(6) In addition to the matters explicitly defined in the Regulations, the Board decides on the applications of doctoral students with regard to:

1. the continuation of studies (repetition of a semester instead of interruption and unregulated suspension of studies until the requirements for its continuation are met),
2. recognition of seminars or workshops for the acquisition of generic skills attended by the doctoral students outside the Faculty,
3. enrolment in courses for students from other universities (“*guest students*”),
4. withdrawal from doctoral studies.

## **II. PUBLIC CALL FOR ADMISSION AND ENROLMENT PREREQUISITES**

### **Article 4**

(1) Faculty council decides on announcing a public call for admission to the doctoral study programmes, the enrolment quota, and the tuition fees.

(2) The public call for admission is usually issued twice a year.

### **Article 5**

(1) A prerequisite for admission to doctoral studies is the completion of a university graduate programme or a university integrated study programme in the field of electrical engineering or computing, in which a total of at least 300 ECTS credits have been earned, with a grade point average of at least 3.5 on all examinations passed, or an equivalent four-year university undergraduate study in the field of electrical engineering or computing with a grade point average of at least 3.5 on all examinations passed.

(2) A candidate with a Master of Science degree in the field of electrical engineering or computing may be admitted to doctoral studies.

### **Article 6**

(1) The Board shall determine the admission requirements and the necessary differential examinations for applicants who hold a diploma of a university study programme referred to in Article 5 of these Regulations in the field of mathematics, physics, informatics, and other related high education studies with a grade point average of all examinations passed of at least 3.5.

(2) A candidate with a Master of Science degree in the field of mathematics, physics, informatics, or other related fields may enrol in the doctoral studies, with eligibility and required differential examinations determined by the Board.

### **Article 7**

The Faculty Council, based on the Board's recommendation, may, exceptionally, approve the enrolment of an applicant who has graduated from the university study programme referred to in Article 5 of these Regulations with a grade point average of all passed examinations of less than 3.5, based on the applicant's scientific research results that he or she achieved after graduation.

### **Article 8**

(1) The final decision on the implementation of the doctoral study on the basis on the public call shall be made by the Faculty council if it determines that there is a sufficient number of eligible applicants.

(2) Based on the Board's recommendation, the Faculty council shall approve the enrolment of the applicants and assign potential mentors to each applicant in order to support them in their studies and monitor their work and progress until the completion of the topic proposal process and the appointment of the mentor.

### **Article 9**

Applicants who obtain the right to enrol in the doctoral study shall sign the study agreement, which specifies the mutual rights and obligations of the contracting parties.

### **Article 10**

(1) The doctoral study tuition fee shall be paid either before enrolling in each of the six semesters, in equal portions of the total cost, or as a single payment, before enrolling in doctoral study.

(2) Students who repeat a semester shall pay the cost of re-enrolment in accordance with the decision on costs passed by the Faculty council.

(3) The costs of printing the diploma shall be borne by the doctoral student, according to the price list established by the University of Zagreb (hereinafter: University).

## **III. STUDY DURATION**

### **Article 11**

(1) When enrolling in the doctoral study, each doctoral student shall submit a written statement specifying whether he or she intends to study full-time or part-time.

(2) Full-time study refers to students who dedicate full-time to fulfilling the obligations required by the doctoral study. Part-time doctoral students shall submit a statement stating that they have the time available for the fulfilment of the study obligations according to the study programme.

(3) Full-time doctoral study generally lasts three years and it may be extended to five years in justified cases as determined by the Board. Part time doctoral study lasts five years and it may be extended to seven years in justified cases as determined by the Board. At the expiration of eight

years since enrolment, the doctoral student loses the right to defend the doctoral dissertation. The period of dormant status shall not be counted towards the period of study referred to in this Article.

### **Article 12**

Based on the Board's recommendation, the head of the doctoral study may approve activation of doctoral student's dormant status for the duration of one semester or one academic year in justified and substantiated cases, in accordance with the Statute of the University of Zagreb. The application for activation of dormant status shall be submitted in written form, with an explanation and the accompanying documentation, no later than within 30 days from the date of determination of the reason for the suspension of studies.

### **Article 13**

(1) A doctoral student who continues his or her doctoral studies after a previous termination of the student status is obliged to accept all changes in the study programme made during the suspension and to pay the tuition fees according to the price established for the generation of doctoral students with whom he or she continues his or her doctoral studies.

(2) If more than two years have elapsed since the termination of the student status, the enrolled studies cannot be continued.

## **IV. DOCTORAL STUDY COMPONENTS**

### **Article 14**

(1) The core component of a doctoral study programme is scientific research and creativity.

(2) Before submitting his or her thesis for evaluation, a doctoral student must have at least one internationally peer-reviewed paper published or accepted for publishing in a journal indexed in CC, SCI or SCI Expanded, published during the doctoral study, related to the topic of the doctoral research, and in which he or she is the first author.

(3) In addition to the paper referred to in Paragraph 2 of this Article, the doctoral student must present and publish at least one paper in an international conference proceedings.

### **Article 15**

(1) The Faculty council shall decide on the list of courses to be held as part of the doctoral study implementation plan. Prior to the start of lectures, the course lecturers shall post all information on the courses, including the examination method and timeline, on the course webpage.

(2) The lectures for courses at doctoral study taken by at least four students shall be held in accordance with the published doctoral study schedule. Lectures for courses taken by fewer than four students may be organised in the form of consultations, with a mandatory lecture focusing on the major course topics and lasting at least three (3) hours.

(3) A doctoral student must take 5 (five) courses with a workload of 6 (six) ECTS credits each, of which at least 2 (two) must be taken in the first and second semesters of study, and the rest in the third and fourth semesters.

(4) Doctoral study courses related to the differential examinations referred to in Article 6 of these Regulations must be taken in the first year of study and shall not count towards the course quota referred to in Paragraph 3 of this Article.

(5) Passing examinations in all courses is a prerequisite for enrolment in the fifth semester of doctoral studies.

### **Article 16**

(1) In order to promote research, stimulate critical thinking and facilitate the acquisition of scientific methodology, research seminars for the fields included in the doctoral studies shall be established and conducted by decision of the Faculty Council.

(2) Research seminars include the following activities: presentations and discussions of research accomplishments, announcement and preliminary presentations of conference papers, doctoral qualifying examinations, public discussions of the dissertation topic and expected original scientific contribution, short lecture cycles, guest lectures, Ph.D. Day, and other activities of interest.

(3) Doctoral students are required to take the research seminar in their area of research during each of the six semesters of study and participate in its activities. Each doctoral student is required to give at least one presentation within the research seminar in each academic year and to attend all other presentations in the seminar.

### **Article 17**

(1) Seminars and workshops for the acquisition of generic research, scientific and business skills shall be established permanently or temporarily by decision of the Faculty council.

(2) Doctoral students must attend at least two seminars or workshops for the acquisition of generic skills during their doctoral studies.

(3) At least one of the seminars or workshops for the acquisition of generic skills taken by a doctoral student must be established at FER.

(4) The Board may also recognise the student's participation in seminars and workshops for the acquisition of generic skills in other institutions in Croatia, or abroad.

## **V. QUALIFYING EXAMINATION**

### **Article 18**

The qualifying examination is held in the first year of study. Passing the qualifying examination is a prerequisite for enrolment in the third semester of the doctoral studies.

## **Article 19**

- (1) Doctoral students apply for the qualifying examination using the prescribed form provided by the Faculty.
- (2) Doctoral students shall enclose with their application a paper reflecting the state of the art in the field of their scientific interest, i.e. in the field of their future doctoral dissertations. The papers must be submitted in a computer-readable format in accordance with Directions for preparing the paper for the doctoral qualifying examination.
- (3) The Faculty council, based on a proposal by the Board, appoints the committee for the qualifying examination. The committee consists of three or five members, at least one of whom is neither a faculty member at the doctoral study at FER nor employed at FER. The student's mentor cannot be appointed as the head of the committee.

## **Article 20**

The qualifying examination is conducted by the appointed committee for qualifying examination. The doctoral students' mentor is responsible for organising the examinations within 30 days from the date of the appointment of the committee for qualifying examination. Students' mentor shall notify the Student administration about the place, date, and time of the examinations at least 7 days in advance. The Student administration makes public announcements regarding the examinations and creates links on the Faculty's web pages to the papers referred to in Article 19, Paragraph 2, with online access to the full papers restricted exclusively to registered users of those pages.

## **Article 21**

- (1) The qualifying examination shall take the form of a public oral examination.
- (2) In the qualifying examination, doctoral students present the papers referred to in Article 19, Paragraph 2 of these Regulations.
- (3) The committee for qualifying examination evaluates a doctoral student's competence to solve the problems in the area of the dissertation by examining the related fundamental and specific knowledge, and assesses the doctoral student's overall ability to complete the dissertation.
- (4) In the minutes of the qualification examination, the individual grades of the committee members determine whether the doctoral student has passed. The final decision is reached by majority vote of the committee members. The head of the committee for doctoral qualifying examination is obliged to submit the qualification examination minutes to the Student administration no later than 15 days after the examination.
- (5) The qualifying examination may be taken no more than twice.

## **VI. SUBMISSION, EVALUATION AND APPROVAL OF THE DOCTORAL THESIS TOPIC AND MENTOR PROPOSAL**

### **Article 22**

- (1) After passing all examinations, including the doctoral qualifying examination, and no later than the end of the fourth semester, the doctoral student initiates the procedure for approving the doctoral thesis topic and mentor appointment. The start of the procedure is the prerequisite for enrolment in the fifth semester of the doctoral study.
- (2) Based on the proposal by the Board, the Faculty council appoints the committee for dissertation topic evaluation and mentor appointment proposal which consists of three or five members, at least one of whom is neither a faculty member at the doctoral study at FER nor employed at FER. The student's mentor cannot be appointed as the head of the committee.
- (3) The committee for dissertation topic evaluation and mentor appointment proposal organises a public discussion of the expected original scientific contribution of the dissertation. The public discussion procedure is regulated by a protocol.
- (4) The committee for dissertation topic evaluation and mentor appointment proposal submits its proposal in the prescribed University form to the Faculty council no later than one month from the date of the public discussion, stating the following information: title of the dissertation in Croatian and English, mentor(s), evaluation of the original scientific contribution and language of the dissertation.
- (5) The Faculty council must comment on the committee's proposal at its next meeting.
- (6) If the proposed dissertation topic receives a negative evaluation, the student has the right to repeat the procedure once.

## **VII. DOCTORAL DISSERTATION EVALUATION PROCEDURE**

### **Article 23**

- (1) Doctoral student initiates the doctoral dissertation evaluation procedure by submitting his or her dissertation with the accompanying mandatory documentation to the Student administration, which files it after the administrative check. The doctoral student is required to inform his or her mentor of the initiation of the doctoral dissertation evaluation procedure.
- (2) Mentors are required to give or withhold the written consent and opinion on the conducted research and the achieved original scientific contribution. If the mentor does not wish to give consent, he or she must explain his or her reasons in writing and submit the statement to the Student administration within 15 days of receiving the notification of the initiation of the doctoral dissertation evaluation procedure. In either case, mentors' statement shall be forwarded to the members of the dissertation evaluation committee, who shall consider it in their evaluation. If necessary, they may also receive the annual mentor's and student's progress reports.

(3) Faculty council, based on the proposal by the Board, appoints the dissertation evaluation committee. The dissertation evaluation committee consists of three or five members, the majority of whom are persons holding the rank of senior research associate or higher (regardless of the research and teaching rank), at least one of whom is neither a faculty member at the doctoral study at FER nor employed at FER but is preferably an employee of another Croatian or foreign university or research institution. The student's mentor cannot be a member of the dissertation evaluation committee, except in those special cases where approved by the Faculty council, based on proposal by the Board.

(4) Dissertation evaluation committee is required to submit a written report including a dissertation evaluation within two months of its appointment, not counting non-working days. The head of the committee prepares the report based on the collected written comments of committee members and the report shall be signed by all committee members. Each committee member has the right to submit a separate evaluation.

## **VIII. DISSERTATION DEFENCE PROCEDURE**

### **Article 24**

(1) A doctoral student may defend his or her dissertation once the Faculty council has accepted the positive evaluation by the dissertation evaluation committee, and no later than within two months from that date.

(2) Based on the proposal by the Board, the Faculty council appoints the dissertation defence committee. The dissertation defence committee consists of three or five members, majority of whom are persons holding the rank of senior research associate or higher (regardless of the research and teaching rank), at least one of whom is neither a faculty member at the doctoral study at FER nor employed at FER, and one or two alternate members. The dissertation defence committee members may be the same as the members of the dissertation evaluation committee. The mentor participates in the dissertation defence procedure but cannot be a member of the dissertation defence committee, except in those special cases where approved by the Faculty council, based on the proposal by the Board.

(3) The doctoral dissertation defence is public. The defence procedure is regulated by a protocol.

(4) Doctoral students have the right to request a postponement of the public defence of their doctoral dissertations in order to carry out legal protection procedures and to commercialise the research results, in accordance with the Regulations on Doctoral Studies at the University of Zagreb. The request for postponement of the public defence of the doctoral dissertation is submitted in writing on the prescribed University form.

## **IX. TRANSITIONAL AND CONCLUDING PROVISIONS**

### **Article 25**



The competent body for the interpretation of these Regulations is the Faculty council.

### **Article 26**

All doctoral students who enrolled in the study programme before the entry into force of these Regulations and did not interrupt their doctoral studies are obliged to fulfil the conditions for initiation of the doctoral dissertation evaluation procedure in accordance with the Regulations in force at the time.

### **Article 27**

All doctoral students whose doctoral dissertation topic was accepted before the entry into force of these Regulations are obliged to fulfil the conditions for initiation of the doctoral dissertation evaluation procedure in accordance with the Regulations in force at the time.

### **Article 28**

(1) These Regulations shall come into force on the eight day from the day of their publication on the Faculty web pages.

(2) On the date of the entry into force of these Regulations, the Regulations on Doctoral Studies at the University of Zagreb Faculty of Electrical Engineering and Computing, passed on 30 June 2010 (Class: 003-05/10-01/8; Reg. No.: 251-67/401-10/1) shall cease to have effect.

In Zagreb, 25 January 2017

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Professor Mislav Grgić, PhD

Reg. No.: 251-67/400-17/1