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OFFICIAL NOTIFICATION
Doctoral Regulations of the
Department of Electrical
Engineering and Information
Technology at the
Ruhr-Universität Bochum
of April 16, 2021

**Doctoral Regulations
of the Faculty of Electrical Engineering
and Information Technology of the
Ruhr-Universität Bochum
of April 16, 2021**

On the basis of Sec. 2 para. 4 in conjunction with Sec. 67 para. 3 and 4 of the Higher Education Act of the State of North Rhine-Westphalia (Hochschulgesetz - HG) of September 16, 2014 (GV. NRW. p. 547), last amended by the Act of March 25, 2021 (GV. NRW. p. 331), the Ruhr-Universität Bochum has issued the following specific Doctoral Regulations of the Faculty of Electrical Engineering and Information Technology on the basis of its General Doctoral Regulations of November 04, 2014:

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Preamble

Ruhr-Universität Bochum offers the opportunity for students to obtain doctorates in all subjects and research areas represented at the university.

Through the General Doctoral Regulations, Ruhr-Universität Bochum expresses its responsibility for all doctorates by

- ensuring a high level of quality and transparency within the doctoral process, and thus contributing to quality assurance.
- establishing university-wide standards and responding to the need for specific departmental regulations.
- facilitating interdisciplinary and inter-university doctoral projects.

Under the provisions of the General Doctoral Regulations of Ruhr-Universität Bochum, the design of doctorates and the implementation of the doctoral examination process is the responsibility of the participating faculties and the institutes heading the doctorates. The Faculty of Electrical Engineering and Information Technology has incorporated these rules into these departmental Doctoral Regulations, adding detailed and subject-specific provisions.

The Research School, which is supported by all faculties, provides all doctoral candidates with interdisciplinary and non-subject specific qualification services, helping each doctoral candidate to structure their dissertation process based both on the specific requirements of their subject area and on their own preferences.

Doctoral candidates are seen as young researchers.

Ruhr-Universität Bochum is committed to a strong culture of supervision. The Supervision Agreement signed by doctoral candidates and their supervisors is a visible expression of this culture.

All doctoral candidates are obligated under Sec. 67 para. 5 HG (Higher Education Act) to register at the university. Students must be accepted as doctoral candidates in the Faculty of Electrical Engineering and Information Technology in order to be registered for the doctoral examination process in the faculty.

Section 1 Doctoral degree

- (1) Ruhr-Universität Bochum grants the degree of Doctor through its faculties and through the institutes heading the doctorates.
- (2) At the Faculty of Electrical Engineering and Information Technology of the Ruhr-Universität Bochum, the doctoral degree of Doctor of Engineering (Dr.-Ing.) or the doctoral degree as “Philosophiae Doctor” (Ph.D.) can be awarded.
- (3) A doctoral degree already awarded cannot be obtained a second time.
- (4) At the Faculty of Electrical Engineering and Information Technology of the Ruhr-Universität Bochum, a doctoral degree can also be awarded for special scientific achievements or for services to science on an honorary basis as Doktor-Ingenieur Ehren halber (Dr.-Ing. E.h.) (Honorary Doctor of Engineering) or as Philosophiae Doctor honoris causa (Ph.D. h.c.).

Section 2 Purpose of the doctorate

The doctoral degree is intended to demonstrate that the candidate is capable of performing independent academic work beyond the general study objectives in accordance with Sec. 58 para. 1 HG. This capability is established based on a written work (dissertation), which extends the state of knowledge in its field, and an oral examination.

Section 3 Doctoral board

The doctoral board of the Faculty for Electrical Engineering and Information Technology decides on the implementation of the doctoral examination process and on all questions related to adherence to the Doctoral Regulations. The doctoral board may delegate day to day operations to its Chair. The doctoral board functions as a board of appeal in the sense of the Administrative

Procedural Code (Verwaltungsgerichtsordnung).

(1) The doctoral board of the Faculty of Electrical Engineering and Information Technology is made up of the following members:

1. all full-time professors,
2. all full-time junior professors,
3. all individuals in the faculty who have qualified as university lecturers by submitting their "Habilitationsschrift",
4. as well as full-time private lecturers and adjunct professors,
5. coopted professors from other faculties,
6. two members of the group of research associates, of whom at least one must have a doctorate.

Research associates who have a doctorate and who have been given the authority to independently complete duties in teaching and research by the President of Ruhr-Universität Bochum are included in the group of professors under clause 1; these individuals bear the rights and obligations of this group in full and without restriction. This applies by analogy to all corresponding provisions of these Doctoral Regulations. Members of the group under clause 6 who do not hold a doctorate have no voting rights in decisions related to the assessment of academic content.

(2) The members under para. 2 clause 6 are selected by the Faculty Council.

(3) Upon application, further members from the group of supervisors according to Sec. 7, Para. 3, letters a) to e) may be elected to the doctoral board by the Faculty Council. Their term of office is three years. Members may be re-elected.

(4) The Chair of the doctoral board is either the Dean or a representative selected by the Dean. The Chair and the Deputy Chair must be members of the group named in para. 2 clause 1.

(5) Meetings of the doctoral board are not open to the public. They are called by the Chair. The doctoral board constitutes a quorum if the majority of its members are present. It makes its decisions based on the majority of voting members present. The vote of the Chair is decisive in case of a tied vote. Minutes are to be prepared for each meeting under the authority of the Chair.

(6) The doctoral board has, in particular, the following duties:

1. making decisions on the acceptance of doctoral candidates in accordance with Sec. 6,
2. establishing the courses of study which prepare candidates for the doctoral process in accordance with Sec. 5 para. 1 letter b,
3. establishing further academic studies and other attainments in accordance with Sec. 5 para. 2,
4. making decisions on admission to the doctoral examination process in accordance with Sec. 9,
5. making decisions on the doctoral degree in accordance with Sec. 11,
6. resolution on the acceptance of the dissertation in accordance with Sec. 12 para. 8.
7. resolution on the acceptance of the dissertation in accordance with Sec. 11 para. 6.
8. appointing reviewers in accordance with Sec. 10,
9. appointing the doctoral commission in accordance with Sec. 10,

10. setting the date of the oral examination and, if the oral examination is not passed, setting the date for the repeat examination in accordance with Sec. 13 para. 1 and 10,
 11. determining that the doctoral examination process has been concluded unsuccessfully in accordance with Sec. 12,
- (7) If the doctoral board decides that the doctoral examination process has been concluded unsuccessfully, the applicant must be informed of this in writing, along with the grounds for the doctoral board's decision. This notification must be accompanied by information on legal remedies.
 - (8) The doctoral board may delegate individual duties in accordance with paragraph 7 to the Chair for completion.

Section 4 Interdisciplinary doctoral board

- (1) In case of an interdisciplinary doctoral examination process, following a suggestion by the candidate's primary supervisor, the doctoral boards of the participating faculties and / or the institutes heading the doctorates may establish a joint doctoral board which consists of the Chairs of the doctoral boards of the participating faculties and / or the institutes heading the doctorates at Ruhr-Universität Bochum, and at least four additional members from these respective faculties and / or the institutes heading the doctorates. This interdisciplinary doctoral board only exists for the duration of the doctoral examination process.
- (2) The additional members of the interdisciplinary doctoral board are selected by the doctoral boards of the participating faculties and / or the institutes heading the doctorates for the duration of the process, and are recruited from the groups designated under Sec. 3 para. 2.
- (3) In general, the degree of "Philosophiae doctor" (Ph.D.) is awarded in interdisciplinary doctoral examination processes. Upon request, one of the other degrees designated under Sec. 1 para. 2 of the General Doctoral Regulations awarded by the participating faculties may also be awarded.
- (4) In an interdisciplinary doctoral examination process, the Dean's offices of the participating faculties and / or the institutes heading the doctorates independently and mutually regulate the administrative responsibilities for the process.
- (5) Sec. 3 para. 6, 7, and 8, and Sec. 19 apply accordingly.

Section 5 Requirements for the doctorate

- (1) Candidates may enter the doctoral program if:
 - a) they have received a degree following a relevant course of university studies with a standard period of study of at least eight semesters for which a degree other than "Bachelor" was awarded, or
 - b) they have received a degree following a relevant course of university studies with a standard period of study of at least six semesters, and have completed subsequent appropriate studies to prepare them for the doctoral program in their doctoral subjects, or
 - c) they have a Master's degree within the meaning of Sec. 61 para. 2 clause HG.
- (2) Proof of a qualified degree is required for admission to the doctoral program. The doctoral board may establish appropriate requirements for admission to the doctoral program in accordance with paragraph 1. The scope and type of the requirements, as well as the proof of attainment and the time frame in which they are to be provided may be established in each

individual case by the doctoral board in consultation with the candidate. An average overall grade of at least 73% must be achieved.

- (3) Admission under para. 1 point b) may be granted given completion within the standard period of study and an overall grade of at least 90%, or an overall grade of at least 84% (very good) and outstanding attainments in some individual areas of specialization at least 95% (excellent). In addition, the candidate must have subsequently obtained at least 60 credit points which prepare them adequately for the doctoral program in subjects under a related Master's program within one academic year. At least 40 of these credit points must be from the mandatory and elective area with an average grade of at least 84% (very good).
- (4) The same requirements apply to applicants who have completed their degrees in countries outside of the European Union, insofar as the degrees have been established as equivalent. The doctoral board decides whether such degrees are equivalent based on interstate conventions, the classification of the university at which the degree was obtained, and agreements with partner universities. If there are any doubts regarding equivalence, the Central Office of Foreign Education is to be consulted.
- (5) In order for an applicant to complete a doctorate in the Faculty of Electrical Engineering and Information Technology at Ruhr-Universität Bochum, the doctoral board must have determined that the applicant has sufficient knowledge of a common scientific language – either German or English.

Section 6 Acceptance as a doctoral candidate

- (1) The applicant must submit a written Application for Acceptance as a Doctoral Candidate to the Chair of the doctoral board, along with a working title for the planned dissertation and the aspired doctoral degree. Upon acceptance, the applicant is required to matriculate as a doctoral candidate at Ruhr-Universität Bochum, and to be admitted into the RUB Research School.
- (2) The application for a change of the doctoral degree applied for is possible until the time of admission to the doctoral examination process and must be confirmed by the doctoral board.
- (3) In the case of acceptance in accordance with Sec. 5 Para. 3, acceptance as a doctoral candidate for the degree of Dr.-Ing. is combined with the obligation to enrol for a second course of study in the associated Master's degree programme. Acceptance only becomes effective after enrolment in the Master's degree programme.
- (4) The following must be included with the application:
 1. a resume (with educational background, and professional background if applicable),
 2. a graduation certificate in accordance with Sec. 5 para. 1,
 3. a certification authorizing the candidate to study at a German university, or another university entrance qualification,
 4. a signed Supervision Agreement in accordance with Sec. 7 para. 6,
 5. acceptance of the “Guidelines of Good Academic Practices” in their current valid version, documented through the applicant's signature,
 6. a recommendation from the supervisor establishing requirements,
 7. if the candidate is admitted under Sec. 5 para. 1 letter b, proof of studies completed in preparation for the doctoral program.
- (5) The doctoral board makes the final decision on whether to admit the doctoral candidate. The

candidate is to be denied acceptance if:

- a) they have not fulfilled the formal requirements for admission to the doctoral program,
 - b) there is no member at the Ruhr-Universität Bochum competent to serve as supervisor,
 - c) the university is not able to ensure the candidate will be provided the necessary working materials or work space.
- (6) The doctoral board can neither prompt a member of Ruhr-Universität Bochum to accept or reject a candidate as a doctoral candidate, nor can doctoral candidates be assigned a member of Ruhr-Universität Bochum as their supervisor against their will.
- (7) The applicant is informed of the board's decision in writing. Requirements in accordance with Sec. 5 para. 2 and 3 are to be formulated in this decision if applicable. Rejections must include a statement of grounds. Upon acceptance, the applicant will be included in the directory of doctoral candidates. Admission as a doctoral candidate does not imply a decision on admission to the doctoral examination process.

Section 6a Doctoral programmes and courses

"omitted"

Section 7 Supervising and the Supervision Agreement

- (1) Upon acceptance as a doctoral candidate, the candidate is entitled to inclusion in the deliberations of the doctoral board and to supervision by at least two supervisors, as well as to a review of the dissertation after admission in accordance with Sec. 9. The primary supervisor must be qualified in a field relevant to the doctoral project. The secondary supervisor may be qualified in a different field to that of the primary supervisor.
- (2) The following individuals may serve as supervisors in the doctoral project:
 - a) All persons who are members of the doctoral board in accordance with Sec. 3 para. 2 clauses 1 to 4 when the supervising relationship commences;
 - b) persons who have retired from Ruhr-Universität Bochum who were members of the doctoral board in accordance with Sec. 3 para. 2 clauses 1 to 5 or Sec. 3 para. 4 directly before entering retirement.

If the first supervisor leaves the Faculty of Electrical Engineering and Information Technology, he or she may continue the supervision for a maximum of five years.

- (3) If one supervisor is already a member of the doctoral board in accordance with para. 2, the doctoral board may resolve to admit the secondary advisor from the following group of individuals:
 - a) professors or lecturers who have completed their "Habilitationsschrift" at Ruhr-Universität Bochum or at another university,
 - b) private lecturers as well as adjunct professors in the faculty whose primary place of employment is not Ruhr-Universität Bochum,
 - c) visiting professors of the faculty,
 - d) PhD junior research group leaders who are employed full-time at the faculty,
 - e) directors of the Max Planck Institute for Security and Privacy (MPI) who are members of the faculty,
 - f) PhD research group leaders who are employed full-time at the MPI,

- g) university lecturers with attainments equivalent to a “Habilitationsschrift,” who hold a doctorate degree and are qualified in the field.
- (4) In the event of a valid reason, the supervisory relationship can be terminated at the request of the supervisor or the doctoral candidate to the doctoral board. A valid reason is in particular the breakdown of the relationship of trust between the parties involved. Following the discontinuation of the supervising relationship, the doctoral board will attempt to find another supervisor, following a request to this effect by the doctoral candidate. If it is not possible to establish a supervising relationship for the candidate, their acceptance as a doctoral candidate in accordance with Sec. 6 is withdrawn.
- (5) In case of conflicts, the responsible doctoral board and – for doctoral candidates – the ombudsperson at the RUB Research School and – for supervisors – the ombudsperson at Ruhr-Universität Bochum are available as a contact person.
- (6) A Supervision Agreement regulates the rights and obligations of doctoral candidates and of supervisors in accordance with the attachment to these regulations. It contains the following elements:
1. Name of the doctoral candidate, name of the first supervisor and start of the doctoral project,
 2. Working title of the intended dissertation,
 3. Deadline for submission of an exposé after or at the beginning of the doctoral project describing the research questions of the intended dissertation, the state of the literature and the research methods.
 4. Signatures of the doctoral candidate and the supervisors. The name and signature of the second supervisor can be submitted at the latest twelve months after submission of the application.
 5. Indication of the intended doctoral degree according to § I.
- (7) Publishing extracts of the dissertation results in advance is encouraged. Doctoral candidates are to coordinate such publications with their supervisors by mutual agreement.

Section 8 Structuring of the doctorate

- (1) Ruhr-Universität Bochum offers doctoral candidates the opportunity to structure their doctorate. Depending on their needs, doctoral candidates can use the qualification offerings in the faculty or in the RUB Research School to acquire a qualifications profile tailored to their individual research project.
- (2) Events in graduate schools, doctoral study programs, or other subject-specific formats for structured doctoral programs and events of the RUB Research School may be recognized.

Section 9 Admission to the doctoral examination process

- (1) After completing the dissertation, the doctoral candidate is to submit a written Application for Admission to the Doctoral Examination Process to the Chair of the doctoral board. The following must be included with the application:
 1. three copies of the dissertation in bound or stitched format,
 2. a brief, one-page summary of the dissertation in German in paper form which includes the title of the dissertation and the name of the applicant,

3. a data storage media with the dissertation in electronic form as a document with full text searching, as well as the brief summary in accordance with clause 2,
 4. a signed declaration with a statement worded as follows: "I hereby declare under oath that I have prepared the dissertation submitted independently and without inadmissible third- party assistance, that I have not used any literature except as indicated in the dissertation, and that I have identified all text quoted in full or by way of approximation, as well as all graphics, tables, and analysis programs used. In addition, I hereby assure that the electronic version of the dissertation submitted matches the written version, and that no paper in this or in a similar form has yet been submitted and evaluated as a doctoral dissertation.",
 5. a declaration that digital images only include the original data, or clear documentation of the type and scope of the image editing performed with regard to content,
 6. a written assurance that the candidate has not made use of any commercial mediation or consulting services,
 7. if applicable, a declaration by the applicant regarding excluding the university public at the oral examination within the meaning of Sec. 63 para. 4 HG,
 8. an overview of the applicant's own academic publications and conference participations, separated into
 - a) reviewed publications in academic journals (peer-reviewed papers),
 - b) reviewed conference papers (peer-reviewed conference proceedings),
 - c) other publications,
 - d) list of conference and convention participations.
 9. Once the applicant has been accepted in accordance with Sec. 5 para. 2, he or she is to submit proof that the requirements have been met. If the requirements have not been completed successfully, the doctoral board withdraws the applicant's acceptance as a doctoral candidate.
- (2) The doctoral board decides whether to admit the candidate to the doctoral examination process and the determination of the doctoral degree based on the documents submitted in accordance with Sec. 1. Admission may be denied if the candidate
- a) has not, or has not fully submitted the documents by the set deadlines,
 - b) has applied for admission at another university at the same time,
 - c) has not completed some sections of the dissertation himself or herself, or has not clearly identified third party ideas referenced.

Initiation may also be denied if one of the grounds indicated in Sec. 17 para. 6 for withdrawing the doctoral degree applies to the candidate.

- (3) The applicant is informed of the board's decision in writing. Rejections must be founded, and information on legal redress provided.

Section 10 Doctoral commission

- (1) The doctoral board appoints a doctoral commission with Chair for each doctoral examination process. The Chair of the doctoral commission is appointed by the doctoral board from among the members of the faculty indicated in Sec. 3 para. 2 under clauses 1 and 2. The doctoral commission is the body responsible for holding the oral examination as well as for determining the candidate's overall grade.

- (2) The doctoral commission shall consist of the Chair and the reviewers of the dissertation as well as two further members who are members of the doctoral board pursuant to Sec. 3, Para. 2, clauses 1 to 5 or Sec. 3, para. 4 or retired persons who were members of the doctoral board pursuant to Sec. 3, para. 2, clauses 1 to 5 or Sec. 3, para. 4 immediately prior to their retirement. One of the other members may be from the group of persons named in Sec. 7 para. 3 if he or she has already been admitted as a supervisor or reviewer.
- (3) Each dissertation is evaluated by two or three reviews, at least one of which must be prepared by a reviewer who is a member of the Ruhr-Universität Bochum. The following individuals may be appointed as reviewers:
 - a) The members of the doctoral board in accordance with Sec. 3 para. 2 clauses 1 to 5 or Sec. 3 para. 4.
 - b) persons who have retired from Ruhr-Universität Bochum who were members of the doctoral board in accordance with Sec. 3 para. 2 clauses 1 to 5 or Sec. 3 para. 4 directly before entering retirement.
 - c) First supervisors who have left the Faculty of Electrical Engineering and Information Technology and continue the supervision.

The doctoral board may resolve with a two-thirds majority to appoint further reviewers from the following group of individuals stated in Sec. 7 para. 3: Upon request, the committee may conclude resolutions in secret.

- (4) If the doctoral candidate is admitted to the doctoral program, the doctoral board appoints the reviewers for the dissertation. Reviewers are obliged to submit independent written reviews.
- (5) All members of the doctoral commission have voting rights. The doctoral commission passes resolutions by a simple majority. The vote of the Chair is decisive in case of a tied vote. Abstentions are not permitted.
- (6) If an appointed member of the doctoral commission is not capable of completing the doctoral examination process (for instance because of absence due to illness), the Chair of the doctoral board will appoint a replacement member.

Section 11 Dissertation

- (1) With their dissertation, the doctoral candidates have to prove their ability to complete independent research work in their research field. The dissertation has to include new scientific findings, and fulfill scientific requirements for the presentation of these findings.
- (2) The dissertation must not have been used in the past or be used in future in any other doctoral examination process or in any comparable proceedings at a university within Germany or abroad, insofar as not stated otherwise in these regulations.
- (3) The dissertation should be written in German or English. The doctoral board decides on exceptions.
- (4) It is possible to publish the dissertation results in advance. Results published in advance are to be identified in the dissertation.
- (5) If the dissertation is the result of joint research work, the individual contribution of the applicant must be documented or established accordingly.
- (6) A cumulative dissertation consisting of several scientific papers may be recognised if these papers are thematically related, have undergone a procedure for scientific quality assurance and in their entirety meet the requirements according to Sec. 11 para. 1. Further details are regulated by an implementation regulation of the doctoral board. A cumulative dissertation

requires the approval of the first supervisor and must be applied for by the doctoral candidate to the doctoral committee at the latest when applying for admission to the doctoral examination process and must be approved by the doctoral board.

- (7) The dissertation may be withdrawn by the doctoral candidate if no review has yet been completed. In this case, the dissertation is treated as if it had not yet been submitted, and as if the doctoral examination process had not yet been opened. If the doctoral candidate withdraws their dissertation at a later point in time, the doctoral examination process is deemed to have failed.
- (8) One copy of the dissertation is stored in accordance with the “Guidelines on Storing, Separating, Archiving, and Destroying Files” of Ruhr-Universität Bochum, even if the process was not successful.

Section 12 Evaluating the dissertation

- (1) The dissertation is forwarded to the reviewers by the doctoral board in accordance with Sec. 10. As a rule, they submit independent written reviews of the dissertation within three months of receipt, recommending to the doctoral board, the acceptance, supplementation, revision, or rejection of the work. In case of acceptance, they also suggest a grade.
- (2) Grades for dissertations recommended for acceptance are assigned based on the following scale:
 - 1.0; 1.3; 1.5 = very good,
 - 1.7; 2.0; 2.3 = good,
 - 2.7; 3.0; 3.3 = satisfactory,
 - 3.7; 4.0 = sufficient.

A review may already suggest an overall grade of “with distinction”. Awarding this distinction requires an express notification in the review, as well as a complete assessment of the candidate's academic publications.

- (3) If the grades awarded by two reviewers differ by more than one full grade, or if one of the reviewers recommends that the dissertation should be rejected, the doctoral board names an additional reviewer.
- (4) The reviewers may bind their assessments with requirements to supplement or revise the dissertation before printing.
- (5) The dissertation and the expert reports shall be made accessible to the members of the doctoral commission of the participating faculties as well as to all members of the doctoral board by the Dean's office by means of a suitable procedure that ensures confidentiality.
- (6) The dissertation is displayed in the Dean's office for viewing by the members of the doctoral board in accordance with Sec. 3 para. 2 clauses 1 to 5 or Sec. 3 para. 4 for the duration of at least 14 days. The members are to be informed in writing of this display period.
- (7) Each member of the doctoral board in accordance with Sec. 3 para. 2 clauses 1 to 5 or Sec. 3 para. 4 may register a statement during the display period; such statements must be made available to the Chair of the doctoral board in written form at the latest 14 days after the end of the display period.
- (8) The doctoral committee decides on the final acceptance or rejection of the dissertation on the basis of the reviews and any comments.
- (9) If the dissertation is rejected, the doctoral examination process ends. The candidate may

submit another work, or a fundamentally revised version of the previous work with the same topic, at the earliest after six months. If the dissertation is rejected once again, the candidate is not permitted to make further attempts to complete a doctoral degree at Ruhr-Universität Bochum.

Section 13 Oral examination

- (1) Once the dissertation has been accepted, the date of the oral examination is agreed with the candidate. The oral examination should be held within six months after the dissertation is submitted. If the candidate misses the examination date, or if the examination is aborted, this is considered failure of the examination, unless the candidate has a valid reason, which is to be submitted promptly in writing and justified. In case of illness, a medical certificate is to be submitted. If the doctoral commission accepts the grounds provided, a new examination date is set.
- (2) The oral examination is held by the doctoral commission, led by the Chair.
- (3) During the oral examination, the doctoral candidate should prove that he or she is capable of presenting the results produced in the course of the dissertation, of defending them against questions and objections, of discussing them in an academic manner, and of positioning them within the scientific context of the subject of electrical engineering and information technology.
- (4) The oral examination lasts for 60 to 75 minutes. It begins with a presentation by the doctoral candidate lasting 20 to 25 minutes on the most important results of their dissertation. This presentation should take the character of an examination; the use of technical aids must be restricted to the necessary minimum.
- (5) The members of the doctoral committee and the members of the doctoral board authorised to supervise in accordance with Sec. 3 para. 2 clauses 1 to 5 or Sec. 3 para. 4 are entitled to ask questions during the oral examination.
- (6) The oral examination is open to all members of the university in accordance with Sec. 63 para. 4 of the Higher Education Act (HG). If a declaration has been submitted in accordance with Sec. 9 para. 1 clause 7, the public is to be excluded. The Chair of the dissertation commission determines whether the admitted public should be expanded, in conjunction with the candidate. The doctoral board does not count as part of the public.
- (7) A report of the oral examination is to be kept and signed by the members of the doctoral commission.
- (8) Directly after the end of the oral examination, the doctoral commission decides in a non-public meeting whether the doctoral candidate's performance fulfills the requirements indicated in Sec. 13 para. 3 and 4.
- (9) For this purpose, the members of the doctoral commission submit a suggested grade independently of one another. The possible grades are:

1.0; 1.3; 1.5	= very good,
1.7; 2.0; 2.3	= good,
2.7; 3.0; 3.3	= satisfactory,
3.7; 4.0	= sufficient,
5.0	= not sufficient.

The grade for the oral examination is determined from the arithmetic mean of the individual

grades assigned. The oral examination is deemed failed if the grade is lower than 4.0.

- (10) If the oral examination is rated as failed, it may be repeated once. A second repeat is only possible in well-founded and exceptional cases, after approval by the doctoral board. Sec. 13 para. 1 applies accordingly to repeat examinations.

Section 14 Evaluating the doctorate

- (1) Directly after the end of the oral examination, the doctoral commission decides in a non-public meeting whether the doctoral candidate's performance fulfills the requirements indicated in Sec. 2.
- (2) The grade for the dissertation is determined from the arithmetic mean of the grades assigned by the reviewers.
- (3) In forming the overall grade, the grade for the dissertation is weighted double, and the grade for the oral examination is weighted singly. The sum of these is divided by three. The overall grade is determined as follows:
- | | |
|-----------------|---------------------------------|
| up to 1.5 | = very good or magna cum laude, |
| over 1.5 to 2.5 | = good or cum laude, |
| over 2.5 to 4.0 | = passed or rite. |
- (4) In outstanding and exceptional cases, and after assessing the overall work, the doctoral commission may award the overall title "with distinction" or "summa cum laude." The requirements for this distinction are that
- at least one review has already expressly mentioned this grade and includes a complete assessment of the academic publications of the candidate,
 - the overall grade is above or equal to 1.1,
 - the reviews provide a grade of 1.0 in accordance with Sec. 12 para. 4,
 - the oral examination was assessed with a grade above or equal to 1.2, and
 - not more than one member of the doctoral commission objects to awarding the title "with distinction."
- (5) If the title "with distinction" is awarded, the report of the dissertation examination must record what outstanding performance has been achieved.
- (6) The Chair of the doctoral commission is to inform the doctoral candidate of the results of the commission's deliberations directly after the doctoral commission has made its decision, without members of the public being present.
- (7) If the candidate has passed the examination, the doctoral process is concluded, and the Chair of the doctoral board issues the doctoral candidate with a preliminary certification of this upon request. This certification does not yet entitle the candidate to hold the title of Doctor.

Section 15 Right of appeal

- (1) Negative decisions under these regulations are to be founded in writing and the doctoral candidate informed along with information on legal remedies.
- (2) In accordance with the provisions of the Administrative Court Procedures Code, candidates may object to decisions of the doctoral commission and of the doctoral board within one month after notification of a rejection by notifying the Chair of the doctoral board in writing or by declaration, insofar as the decision relates to the assessment of examination

performance.

- (3) The doctoral board may change decisions against which an objection has been raised. If the objection is raised against the doctoral commission's assessment of performance during the doctoral procedure, a decision to change this assessment may only be made in conjunction with said doctoral commission which approved the challenged assessment. If the objection is not remedied, an appeal notification is to be issued by the Chair of the doctoral board. The appeal notification must be founded, information on legal redress included, and delivered.
- (4) After the end of the doctoral examination process, the candidate or an individual commissioned by him or her has the right to view all written doctoral documentation within the term of three months. Doctoral files are not accessible to third parties.

Section 16 Obligatory copies and publication

- (1) After passing the oral examination, the Chair of the doctoral board informs the doctoral candidate if and, if applicable, which required changes he or she needs to make in accordance with Sec. 12 para. 1 and 4 before publishing the dissertation. The revised manuscript must then be submitted to at least one reviewer before producing the obligatory copies for approval.
- (2) The doctoral candidate is obligated to make his or her dissertation available to the scientific community in an appropriate manner. This obligation is fulfilled by delivering
 - a) two printed copies, if the dissertation has appeared through a publisher and has an ISBN number, as well as an electronic version, which will remain in the files of the faculty, or
 - b) two printed copies and one electronic version of the dissertation, the data format and data storage medium of which are to be coordinated with the university library, and at least two printed copies for the university library

within one year after the oral examination. Upon justified application before the deadline, the doctoral board may extend the submission deadline once. If the doctoral candidate misses these deadlines, all rights acquired through the examination expire.

If the dissertation is published as under letter b, the doctoral candidate will grant the university library of Ruhr-Universität Bochum the right to make further copies of his or her dissertation within the framework of its legal duties, and to distribute these or to make the dissertation available online in data networks.

Section 17 Doctoral confirmation and doctoral certificate; Holding and withdrawal of the doctoral degree

- (1) The doctoral confirmation is issued and handed out as soon as the doctoral candidate has fulfilled the obligations under Sec. 16. The doctoral confirmation includes only the overall grade. It is to be signed by the Dean. Sec. 4 para. 4 applies accordingly to interdisciplinary doctoral examination processes.
- (2) Once the doctoral confirmation is handed over, the now graduate is entitled to hold the degree of “Doctor of Engineering (Dr.-Ing.)” or “Philosophiae Doctor“ (Ph.D.)”.
- (3) If the doctoral candidate has been accepted for the degree of “Doctor of Engineering (Dr.-Ing.)” in accordance with Sec. 5 para. 1 Letter b, he or she must acquire a further 60 credit points in the subject chosen for the doctoral preparatory studies in addition to the achievements preparing for the doctorate in accordance with Sec 5 para. 3. She or he will

then receive a certificate, a diploma and a transcript of the Master of Science degree in the subject chosen by her or him for the doctoral preparatory studies together with the doctoral confirmation.

- (4) In the case of publication of the dissertation in accordance with Sec. 16 para. 2 letter a), the certificate may be issued if the doctoral candidate submits a publishing contract or written confirmation from the publisher of the series in question. The doctoral candidate may be awarded the certificate if he or she submits a publishing agreement or written confirmation from the publisher of the series in question stating that the dissertation can be obtained via the book trade and that an ISBN has been assigned to it. If the publishing house contract or the agreement with the publisher of the series concerned requires an advance payment for printing costs, the doctoral candidate must prove that this payment has been completed or secured.
- (5) If it is determined before the doctoral confirmation is handed over that the doctoral candidate has culpably engaged in deception, the doctoral board may deny the doctoral degree and declare the process to be invalid.
- (6) The withdrawal of the doctoral degree and the confiscation of the doctoral confirmation may follow if the holder of the doctoral degree
 - a) has achieved the doctoral degree through academic misconduct, deception, or by providing fundamentally incorrect information, or if the requirements for admission to the doctoral program were incorrectly assumed to have been fulfilled,
 - b) is sentenced to imprisonment of at least one year due to an intentional criminal offence,
 - c) has been sentenced due to an intentional criminal offence in which he or she misused the doctoral degree during preparations for or committing of said offence,
 - d) proves unworthy to hold the doctoral degree through later academic misconduct.
- (7) The decision to withdraw the doctoral degree must be made by the majority of the members of the doctoral board who have completed their doctorates. The decision is passed by the Dean.
- (8) The Rector of Ruhr-Universität Bochum will inform the responsible Ministry that the doctoral degree has been withdrawn.

Section 18 Interuniversity doctoral examination process

The doctoral board may agree to complete joint doctoral examination processes or to jointly award a doctoral degree with other universities, in particular international universities. Corresponding agreements are to be adopted by the Faculty of Electrical Engineering and Information Technology; such agreements may deviate from the regulations of this Ordinance.

Section 19 Honorary doctorates

- (1) The Faculty Council of the Faculty of Electrical Engineering and Information Technology at Ruhr-Universität Bochum may award the degree of “Doktor-Ingenieur Ehren halber (Dr.-Ing. E.h.) (Honorary Doctor of Engineering)” in accordance with Sec. 1 para. 4 for special academic merits, technical achievements, or ideas which serve to advance electrical engineering and informational technology.
- (2) This process may only be initiated upon request by a professor or multiple professors in the Faculty of Electrical Engineering and Information Technology at Ruhr-Universität Bochum,

which must be submitted to the Chair of the doctoral board.

- (3) If the doctoral board agrees to initiate the process, it must select a committee of five members from among its midst. This committee reports to the doctoral board on the merits of the individual to be honoured.
- (4) A four-fifths majority of the members of the doctoral board who are present is required for the doctoral board to make a recommendation to the Faculty Council to award an honorary doctorate.
- (5) The honorary doctorate is awarded by the Dean presenting a certificate to the honoree, which is to include a laudation.

Section 20 Renewing the doctoral confirmation

- (1) The doctoral confirmation may be renewed in the 50th year after it was awarded, upon suggestion by the Faculty, in celebratory form (“Golden doctoral anniversary”).
- (2) Paragraph 1 applies accordingly to the 25th anniversary year (“Silver doctoral anniversary”).
- (3) These awards will be presented during a festive event, at a location central to the university if possible.

Section 21 Entry into force, transitional provisions, amendments

- (1) The Doctoral Regulations of the Faculty of Electrical Engineering and Information Technology come into force on the day after their publication in the Official Notifications of the Ruhr-Universität Bochum and apply to all doctoral candidates who enrol in the doctoral programme from this date onwards.
- (2) After these regulations come into force, the Doctoral Regulations of the Faculty of Electrical Engineering and Information Technology of June 3, 2016 (AB 1157), amended by the statutes of February 14, 2017 (AB 1207), remain in force up to and including the summer semester of 2025. Doctoral candidates who have already been accepted when these Doctoral Regulations come into force shall be awarded their doctorate in accordance with the Doctoral Regulations of the Faculty of Electrical Engineering and Information Technology valid at the time of acceptance until and including the summer semester 2025. Doctoral candidates who have already been accepted at the time of the entry into force of these Doctoral Regulations may apply for a doctorate in accordance with these Doctoral Regulations at the latest when applying for admission to the doctoral examination process in accordance with Sec. 9 para. 1.

Prepared following a resolution of the Faculty Council of the Faculty of Electrical Engineering and Information Technology at Ruhr-Universität Bochum dated January 6, 2021.

Bochum, April 16, 2021

The Rector
of Ruhr-Universität Bochum
University professor Dr. Axel Scholmerich



Supervision Agreement

Between Ms./Mr.

..... (doctoral candidate)

and Ms./Mr.

..... (primary supervisor)

as well as Ms./Mr. (secondary supervisor)

a Supervision Agreement is hereby concluded with regard to a doctoral project planned within the Faculty of Electrical Engineering and Information Technology at Ruhr-Universität Bochum regarding the topic (working title).

Working title in German:

.....
.....

Working title in English:

.....
.....

The following doctoral degree is sought in accordance with Sec. 1 of the Doctoral Regulations:

This Agreement is intended to ensure both the academic supervision by a supervisor required for the success of the doctoral project, as well as adequate preparation for the doctorate both in terms of content and methodology by the doctoral candidate. The following is agreed for this purpose:

1. The supervising lecturers and the doctoral candidate arrange regular reporting on the progress of the dissertation. This is to take place at least quarterly in the context of personal discussions.
2. The doctoral candidate is to take part in courses and/or other postgraduate training in consultation with his or her supervisors, if such measures are relevant for his or her dissertation project.
3. The doctoral candidate is to prepare a summary which includes a description of the doctoral project. The deadline for submitting this summary is to be established jointly by the doctoral candidate and the supervisor. It may be a maximum of six months.
4. The doctoral board is to be notified promptly if the supervising relationship is terminated.

Bochum, dated

Signature

Signatures

/

Doctoral candidate

Supervisors