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The Faculty Council of the Faculty of Civil Engineering and Geodetic Science of Gottfried Wilhelm Leibniz Universität Hannover resolved the following revised doctoral regulations on 06.05.2020 for the degree of Dr.-Ing. The revision was approved by the Presidential Board on 03.06.2020 in accordance with section 37 paragraph 1 subparagraph 5. b) of the Lower Saxony Higher Education Act (NHG). These regulations shall take effect the day after publication in the official bulletin of Gottfried Wilhelm Leibniz Universität Hannover.

Revision of the doctoral regulations of the Faculty of Civil Engineering and Geodetic Science of Gottfried Wilhelm Leibniz Universität Hannover

Section 1 Conferral of academic degrees

- (1) Gottfried Wilhelm Leibniz Universität Hannover confers the academic degree Doktor-Ingenieurin or Doktor-Ingenieur, abbreviated Dr.-Ing., through the Faculty of Civil Engineering and Geodetic Science, on the basis of doctoral proceedings.
- (2) The distinction of an honorary doctorate in engineering, Doktor-Ingenieur Ehren halber, abbreviated Dr.-Ing. E. h., may be conferred in rare cases.

Section 2 Doctoral work

The candidate must complete the following work in order to obtain a doctorate:

- 1. A doctoral thesis in English or German, ready for printing, that shows the candidate's ability to independently conduct in-depth academic research as well as progress in the state of research in the subject area selected. The subject of the thesis must belong to a subject area within a degree programme of the faculty or the QUEST Leibniz Research School. With the exception of the publication of partial results, the doctoral thesis must have been neither published nor used as a *Diplom* thesis, master's thesis or other examination paper.
 - Submission of a joint doctoral thesis by multiple doctoral candidates is permissible in the case of a suitable topic, in particular for interdisciplinary doctoral theses; it must be possible to assess each candidate's individual academic contribution within the meaning of sentence 1.
 - Submission of a thesis by publication consisting of multiple individual works is permissible if the candidate proves their ability to conduct in-depth academic research within the meaning of sentence 1 overall. These works must have been prepared within the context of a common scientific topic. The doctoral candidate/s shall prepare an extensive preface which shall include a critical contextualisation of the research topics and the most important findings from the publications within the scientific literature on the topic as well as the acknowledgement of each candidate's own contribution and, as appropriate, those of the other authors of the publications in question.
- 2. a public 30-minute presentation on the topic of the doctoral thesis
- 3. an oral examination of at least one hour following the presentation.

Section 3 Admission to the doctoral programme

- (1) Applicants must provide evidence of a *Diplom* or master's degree in a relevant academic degree programme at a university or a relevant degree programme at a higher education institution.
- (2) In exception to section 3 paragraph 1, persons who have obtained a bachelor's degree with distinction in a degree programme in accordance with section 1 may be admitted to the doctoral programme following an aptitude test.
- (3) Upon application by the applicant, the dean's office reviews whether the admission requirements have been fulfilled. The application is to be submitted to the dean's office prior to beginning work on the doctoral thesis.

The application must include:

- a) proof of the admission requirements in accordance with section 1 or section 2, as appropriate,
- b) indication of the prospective topic of the doctoral thesis and approval from the doctoral thesis supervisor.
- c) a curriculum vitae with information on personal and professional experience,
- d) a declaration on current or previous applications to commence doctoral proceedings.

The members of the group of professors and junior professors serving on the faculty council, chaired by the dean, shall decide whether and in which form proof of sufficient knowledge is to be presented to enter the doctoral programme at the Faculty of Civil Engineering and Geodetic Science. To this end, the faculty council can require the applicant to pass examinations in order to provide evidence of the state of their knowledge. In the event that the candidate must provide such evidence, admission is granted with conditions. The conditions must be fulfilled at the latest at submission of the application to commence doctoral proceedings. The recommendations of the supervising professors are to be taken into account appropriately when determining the evidence to be presented. The dean's office shall review whether the applicant has fulfilled these conditions and, if so, certifies this.

A supervision agreement (see section 5 paragraph 2 no. 5) must be submitted to the dean's office within one of year of admission.

- (4) Aptitude tests for applicants with a bachelor's degree in accordance with section 2 shall consist of selected module examinations corresponding to the requirements of at least two semesters of additional study at the faculty.
- (5) Formal recognition is required for degrees from abroad. The degree programme must be equivalent in terms of type and content for it to be recognised. The agreements on equivalence approved by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder in the Federal Republic of Germany (KMK) and the German Rectors' Conference or the relevant laws must be taken into account when deciding on the equivalence of degrees from abroad. The Central Office for Foreign Education (ZAB) should be heard in case of doubt regarding equivalence. If necessary, conditions in accordance with paragraph 3 shall be imposed.

Section 4 The doctoral council and the doctoral committee

- (1) The doctoral council consists of the following persons belonging to the faculty:
 - · professors and junior professors,
 - · retired professors, professors emeritus and emerita,
 - other persons who hold the title professor (außerplanmäßige Professorinnen and Professoren) as well as lecturers (*Privatdozentinnen* and *Privatdozenten*) working at the faculty,
 - directors of independent junior research groups funded on the basis of an external evaluation procedure conducted by a research funding institution, in particular on the basis of the Emmy Noether Programme of the DFG, the Volkswagen Foundation, the ERC or comparable organisations and
 - honorary professors serving on a part-time basis.
- (2) The doctoral work shall be assessed by a doctoral committee. It consists of the reviewers and of members of the doctoral council. The members of the group of professors and junior professors serving on the faculty council shall decide on the composition of the doctoral committee in each individual case.
 - (3) The doctoral committee consists of at least three members of the doctoral council The members of the doctoral committee are:
 - 1. the dean or a representative designated by the doctoral council as the chair;
 - 2. the reviewers designated to assess the doctoral theses (in accordance with section 6). The chair cannot simultaneously serve as a reviewer.
 - 3. In the case of doctoral proceedings conducted in cooperation with a higher education institution or a research institution without the right to confer doctorates, a co-supervisor of the doctoral thesis can be designated, upon application, as a member of the doctoral commission in accordance with section 6 paragraph 4. This member must hold a doctorate in the relevant field and be recognised academically in the subject area of the doctoral thesis.
 - (4) The doctoral commission shall make a decision covering acceptance or rejection of the doctoral thesis, the evaluation of the oral doctoral work, the overall grade and potential conditions in connection with the publication of the doctoral thesis.

Section 5 Application to commence doctoral proceedings

- (1) The application to commence doctoral proceedings is to be submitted to the dean's office of the faculty.
- (2) The application must include:
 - 1. one copy of the doctoral thesis;
 - 2. a summary in German and English;
 - 3. the candidate's curriculum vitae:
 - 4. a statutory declaration by the doctoral candidate
 - a. that they are aware of the applicable doctoral regulations and have observed them and are willing to undertake an examination in accordance with the provisions of the doctoral regulations,
 - b. that they have authored the doctoral thesis themselves (statement of authorship), have not adopted passages from third parties or from their own examination papers without attribution and that they have indicated all the resources and sources used in their work,
 - that they have not granted third parties direct or indirect payment or payment in kind for contentrelated work on the doctoral thesis or for the arrangement of such services (i.e., the academic
 thesis must not have been purchased or made available in part or in whole in return for payment
 or other consideration),
 - d. that they have not previously submitted the doctoral thesis for a state examination or other academic examination,
 - e. whether they have submitted the same work or one similar in substantial parts to another higher education institution as a doctoral thesis and, if so, with which result; at the same time, the candidate must state whether they submitted a different paper as a doctoral thesis and, if so, with which result.
 - 5. a copy of the supervision agreement concluded between the doctoral candidate, a member of the doctoral council, the dean and the supervisor.
- (3) With the exception of the originals, the application to commence doctoral proceedings, one copy of the doctoral thesis and the documents in accordance with paragraph 2 nos. 2 to 5 remain in the possession of the faculty.

Section 6 Commencement of the doctoral proceedings

- (1) The dean's office shall present the application to commence doctoral proceedings to the faculty council during the next possible meeting for the purpose of commencing the doctoral proceedings. One copy of the doctoral thesis shall be available for inspection in the administrative office of the faculty.
- (2) If admission has been granted in accordance with section 3 paragraph 2 and if proof of sufficient knowledge has been presented, if required, then the faculty council shall commence the doctoral proceedings by appointing the doctoral committee in accordance with section 4.
- (3) The following applies to the appointment of reviewers:
 - 1. All reviewers have a status in accordance with section 4 paragraph 1 or have a post-doctoral teaching qualification at a research university with the right to confer doctorates.
 - 2. As the main rapporteur, the first-mentioned reviewer is generally the inspirer or the supervisor of the doctoral thesis. They must be a member of the Faculty of Civil Engineering and Geodetic Science.
 - A professor of the Faculty of Civil Engineering and Geodetic Science who has accepted an appointment at another higher education institution may be designated as the main rapporteur and appointed as a member of the doctoral committee up to three years after their departure.
 - If the subject of the doctoral thesis requires, the other reviewers may be members of other faculties of Gottfried Wilhelm Leibniz Universität Hannover or other university-status institutions with the right to confer doctorates.
 - 4. In the case of doctoral proceedings conducted in cooperation with a higher education institution or a research institution without the right to confer doctorates in accordance with section 4 paragraph 3, further reviewers may be appointed who are members of a higher education institution or research institution without the right to confer doctorates.
 - 5. At least one reviewer must belong to a different institute than the main rapporteur.
- (4) All reviewers have the same rights in the doctoral proceedings.
- (5) The faculty council can ask persons to provide expert opinions on the entire doctoral thesis or parts of it even if they do not belong to a university-status institution. Such experts do not attain any particular rights

in the doctoral proceedings.

(6) The candidate shall promptly provide one copy of the doctoral thesis to each reviewer and expert.

(7)

Section 7 Assessment of the doctoral thesis

- (1) Each reviewer prepares a written report and recommends acceptance or rejection of the doctoral thesis, giving reasons. A prerequisite for a recommendation to accept is that no significant content-related changes are necessary. Upon acceptance, the reviewers assess the doctoral thesis. The following grading scale shall apply:
 - excellent (ausgezeichnet),
 - very good (sehr gut),
 - good (gut),
 - pass (bestanden).

As a rule, the reports shall be prepared within three months.

- (2) Each expert shall express their opinion concerning only the substance of the doctoral thesis.
- (3) The dean's office shall notify the members of the doctoral council as soon as all the reports and expert opinions have been submitted and shall make them available to them.
- (4) Every member of the doctoral council has the right to submit a written statement about the reports to the dean's office. The deadline for such statements is 14 days after notification.
- (5) If all the reviewers are in favour of accepting the doctoral thesis, and if there is no opinion by members of the doctoral council rejecting it, then the doctoral thesis is considered accepted.
- (6) If one reviewer opposes accepting the doctoral thesis, or if there is at least one written statement in accordance with section 7 paragraph 4 rejecting the doctoral thesis, then the doctoral council shall decide about acceptance or rejection of the doctoral thesis. Prior to the decision, those persons shall be heard who recommended rejecting the doctoral thesis or submitted a written statement rejecting it. In case of doubt, further reviewers in accordance with section 6 shall be appointed.
- (7) If at least two reviewers express an opinion rejecting acceptance of the doctoral thesis, and if there is no opinion to the contrary from members of the doctoral council, then the doctoral committee shall not accept the doctoral thesis. In this case, the doctoral proceedings are terminated (cf. also section 13).

Section 8 Oral presentation and oral examination

- (1) Once the doctoral thesis has been accepted, the doctoral committee shall determine a date and time for the public presentation and the following oral examination. Multiple doctoral presentations must not take place at the same time at the faculty.
- (2) An invitation to this event shall be published by the dean's office at least five working days in advance. The invitation shall be extended to the doctoral candidate, the members of the doctoral council, the members of the doctoral committee as well as the experts. The president of Gottfried Wilhelm Leibniz Universität Hannover, the members of the faculty council and all research institutions of the Faculty of Civil Engineering and Geodetic Science shall be invited as well.
- (3) All persons mentioned in section 4 paragraph 1 and section 4 paragraph 3 as well as reviewers in accordance with section 6 paragraph 5 shall be allowed to be present at the oral examination. All further academic staff of the faculty shall be allowed to be present as well. Upon application by the doctoral candidate, the chair of the doctoral committee may exclude these academic staff from observing the oral examination. Further attendees may be present with the consent of the doctoral committee and the doctoral candidate.
- (4) The oral presentation and the oral examination shall take place under the direction of the chair of the doctoral committee and the attendance of the doctoral committee.
- (5) The duration of the oral presentation shall be half an hour. The oral presentation is to prove the ability of the doctoral candidate to present and evaluate the findings in a comprehensible way.
 - Following the oral presentation, an oral examination of the doctoral candidate shall take place. The duration of the examination must be at least one hour; it shall cover the academic field, beginning with the subjects of the doctoral thesis. The presentation and the examination must be held in German or English.
- (6) Minutes including a list of attendees are to be kept in the doctoral register (*Promotionsbuch*) regarding the examination and the assessments (section 9 and section 10).

(7) If the doctoral candidate is absent from the oral examination without a valid reason, the examination is considered failed.

Section 9 Assessment of the presentation and the oral examination

- (1) Directly following the oral examination, the doctoral committee shall decide whether the presentation and the oral examination fulfil the requirements in accordance with section 2 numbers 2 and 3. If so, it shall assess the presentation and the oral examination and give each a grade in accordance with section 7 paragraph 1.
- (2) If the presentation and/or the oral examination do not fulfil the requirements, the doctoral candidate is to be informed of this promptly. The doctoral candidate may take the examination again if they apply to the dean's office within two months. Section 8 shall apply accordingly. Otherwise, the doctoral proceedings shall be terminated after this period.

Section 10 Overall grade of the doctorate

- (1) If the doctoral candidate has passed the presentation and the oral examination, the doctoral committee shall determine the overall grade of the doctorate, taking the grades for the doctoral thesis (section 7), the presentation and the oral examination (section 9) into account. The grade agreed by the doctoral committee on the basis of the assessments of the doctoral thesis account for 60 percent, the grade of the presentation for 15 percent and the grade of the oral examination for 25 percent, using grades in accordance with section 7 paragraph 1. In an additional grading decision, the committee may deviate by up to one grade in each direction if this better reflects the overall impression.
- (2) The following scale shall apply: with distinction (*mit Auszeichnung bestanden*), very good (*sehr gut bestanden*), good (*gut bestanden*), pass (*bestanden*).
- (3) The chair of the doctoral committee shall promptly inform the doctoral candidate of the overall grade. If the doctoral committee has decided on certain conditions for the final version of the doctoral thesis, the doctoral candidate must also be informed of them; this must be included in the minutes.

Section 11 Reproduction and publication of the doctoral thesis

- (1) The doctoral candidate shall effect the reproduction of the final version of the doctoral thesis for the purpose of publication within one year of completing the final piece of doctoral work. Regarding publication, the General guidelines for the publication and submission of doctoral theses (Allgemeine Richtlinien über die Veröffentlichung und die Ablieferung von Dissertationen), which have been approved by the Senate, as amended, shall apply.
- (2) The camera-ready copy shall be submitted to the chair or a substitute appointed by the chair for issuance of the permission to print. The doctoral thesis must include a summary of approximately one page in German and in English.
- (3) One copy of the final version shall remain in the permanent possession of the faculty.
- (4) The deposit copies must be delivered to the University Library (TIB, *Team Hochschulschriften, Geschenke*) at the latest one year after the doctoral candidate passed the exam. Under special circumstances, the chair of the doctoral committee may specify a later deadline upon application by the doctoral candidate.

Section 12 Doctoral certificate and conferral of the doctorate

- (1) Upon application, the dean shall issue a certificate following the decision of the doctoral committee. The certificate shall include the title and the overall grade of the doctorate. The certificate shall state that it does not yet entitle the doctoral candidate to hold the title of doctor.
- (2) A doctoral certificate shall be prepared and signed personally by the President of Leibniz University Hannover and the dean of the responsible faculty. The doctoral certificate shall bear the date of the oral examination, but shall be issued to the candidate only once they have submitted the deposit copies in accordance with § 11 or a research institution of the faculty has committed to publishing it within one year.
- (3) The doctorate is completed by issuance or receipt of the doctoral certificate. Only after that has occurred does the candidate have the right to hold the title Doktor-Ingenieur or Doktor-Ingenieurin (Dr.-Ing.).

Section 13 Termination of the doctoral proceedings

(1) If the doctoral proceedings were terminated in accordance with section 7 paragraph 7, the dean's office

- shall inform the candidate of this in writing, giving reasons and including information on legal remedies.
- (2) A candidate may reapply for a doctorate only once and only after at least one year. This also applies in the case of unsuccessful attempts to obtain a doctorate at other higher education institutions. A doctoral thesis that has been rejected may not be reused under any circumstances.

Section 14 Retraction of the application to commence doctoral proceedings

The application to commence doctoral proceedings may be retracted provided that no written reports on the doctoral thesis have been submitted.

Section 15 Void doctoral work

If it becomes apparent before issuance or receipt of the doctoral certificate that the doctoral candidate is guilty of deception in his or her doctoral work, the doctoral committee shall declare the doctoral work void.

Section 16 Renewal of the doctoral certificate

The doctoral certificate may be renewed on the fiftieth anniversary of the oral doctoral examination if the faculty council considers this appropriate and decides to do so in consideration of exceptional scientific achievements of the individual celebrating the anniversary or of a particularly close connection of theirs to the university.

Section 17 Honorary doctorate

- (1) The Faculty of Civil Engineering and Geodetic Science may confer the title of Dr.-Ing. E. h. to persons of outstanding merit in recognition of exceptional scientific achievements in the fields covered at the faculty.
- (2) The honour shall be bestowed at the recommendation of three professors who are members of the doctoral council. Upon the agreement of the faculty council, the members of the doctoral council have the right to inspect the recommendation and the reasons given.
- (3) The person to be honoured must not be a member of Gottfried Wilhelm Leibniz Universität Hannover.
- (4) An honorary doctorate requires a decision taken by a majority of at least four-fifths of the members of the faculty council as well as the approval of the Senate.
- (5) The honorary doctorate is conferred by issuing a certificate in which the achievements of the person to be honoured are to be emphasised; it is to be signed personally by the President of Leibniz University Hannover and the dean of the Faculty of Civil Engineering and Geodetic Science.
- (6) All German university-status institutions shall be informed of the honorary doctorate. The Ministry of Science and Culture of Lower Saxony (MWK) shall be informed as well.

Section 18 Joint doctorate with other higher education institutions

- (1) Joint doctoral proceedings with one or more other higher education institutions eligible to conduct doctoral proceedings in Germany or abroad shall be conducted on the basis of an agreement between Leibniz University Hannover and the relevant higher education institution or institutions.
- (2) Agreements between Leibniz University Hannover and other higher education institutions eligible to conduct doctoral proceedings concerning joint doctoral proceedings may deviate from sections 1 to 16.

Section 19 Revocation of a doctoral degree

Revocation of the degree of Doktor-Ingenieur or Doktor-Ingenieurin and the procedure required shall be conducted on the basis of the relevant legal provisions. This applies mutatis mutandis to the honorary doctoral degree Doktor-Ingenieurin or Doktor-Ingenieur Ehren halber.

Section 20 Information on legal remedies

Reasons for all negative decisions in doctoral proceedings must be given in writing; information on legal remedies must be provided.

Section 21 Entry into force

Following approval by the President, these doctoral regulations shall enter into force the day after publication in the official bulletin of Gottfried Wilhelm Leibniz Universität Hannover.