



Technische
Universität
Braunschweig



DOCTORAL REGULATIONS

OF THE

FACULTY OF MECHANICAL ENGINEERING

OF

TECHNISCHE UNIVERSITÄT

BRAUNSCHWEIG

DISCLAIMER:

The legal basis for the doctoral procedure
at the Faculty of Mechanical Engineering
is the German version of the doctoral degree regulations.
This translation serves only as an aid.

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Preamble

The Faculty Council of the Faculty of Mechanical Engineering at Technische Universität Braunschweig adopted these doctoral degree regulations on xx.xx.xxxx.

§ 1 Scope of application

These doctoral degree regulations apply to the Faculty of Mechanical Engineering at the Technische Universität Braunschweig.

§ 2 Right to confer a doctorate and degrees awarded

- (1) The Faculty of Mechanical Engineering at Technische Universität Braunschweig awards the degree Doktor-Ingenieurin or Doktor-Ingenieur (Dr.-Ing.) for scientific achievements in the subject areas represented by the Faculty of Mechanical Engineering. The degree of Doktor-Ingenieurin or Doktor-Ingenieur can only be awarded once to an applicant.
- (2) The Faculty of Mechanical Engineering of Technische Universität Braunschweig may also award the degree of ‘Doktor-Ingenieurin Ehren halber’ or ‘Doktor-Ingenieur Ehren halber’ (Dr.-Ing. E.h.) in the subject areas assigned to it in accordance with § 17.

§ 3 Purpose and forms of the doctorate

- (1) The doctorate serves as proof of the ability to carry out independent, in-depth scientific work in a subject area recognised by the Faculty of Mechanical Engineering.
- (2) Proof is provided by means of a written scientific paper (dissertation) and an oral examination.
- (3) Persons who have been admitted as doctoral candidates by the faculty in accordance with § 5 should enrol as doctoral students at Technische Universität Braunschweig in accordance with § 9 (2) NHG.
- (4) Structured doctorate programme:
 - a) The doctorate is usually carried out as part of the structured doctoral programme of the Faculty of Mechanical Engineering.
 - b) Doctoral candidates must enrol as doctoral students in the Faculty of Mechanical Engineering for at least four semesters. This must also include the semester in which the application for the opening opening of the doctoral procedure is submitted in accordance with § 7.
 - c) Doctoral students must successfully participate in at least four workshops on soft skill topics from the area of interdisciplinary qualification. A corresponding programme offered by the Graduate Academy Grad^{TUBS} can be used free of charge. The creditability for the doctorate at the Faculty of Mechanical Engineering is marked accordingly in the list of courses offered.

- d) In exceptional cases, it is possible for doctoral candidates to have interdisciplinary qualifications acquired elsewhere recognised. A preliminary assessment of equivalence is carried out by Grad^{TUBS} and documented by a certificate of equivalence. The Doctoral Committee makes the final decision on creditability.

§ 4 Admission requirements for the doctorate

- (1) For admission to the doctorate, proof must be provided as follows:
- a) a diploma degree from a relevant university degree programme of at least 9 semesters at a German university in a subject area represented at the Faculty of Mechanical Engineering or a similar engineering subject area; or
 - b) a Master's degree or an equivalent degree from a relevant degree programme with the completion of an academic thesis at a German university in a subject area represented at the Faculty of Mechanical Engineering or a similar engineering subject area. As a rule, proof of the qualification profile of the completed degree programme must be provided by submitting a certificate of accreditation; or
 - c) a diploma degree from a university degree programme at a German higher education institution which is not covered by § 4 (1) a) of at least 9 semesters and knowledge examinations in accordance with § 4 (2) a); or
 - d) a Master's degree from a degree programme not covered by Section 4 (1) (b) with the completion of an academic thesis at a German university and knowledge examinations in accordance with Section 4 (2) (a). As a rule, proof of the qualification profile of the completed degree programme must be provided by submitting a certificate of accreditation; or
 - e) A degree from a relevant degree programme of at least 8 semesters at a German university of applied sciences in a subject area represented at the Faculty of Mechanical Engineering or in a similar engineering subject area. As a rule, the overall grade and the grade of the final thesis must be at least 'very good'. If both grades are at least 'good', an application for an exception can be made in writing or electronically. The application must be accompanied by an expert opinion from a member of the group of persons named in § 6 (1), which establishes the applicant's special academic qualifications. The Faculty Council shall decide on the application. Furthermore, the ability to carry out in-depth academic work must be demonstrated by means of knowledge examinations in accordance with § 4 paragraph 2 letter b); or
 - f) a degree obtained outside Germany that is equivalent to one of the domestic degrees in accordance with § 4 (1) (a) to (e). Foreign degrees must be recognised. Recognition requires equivalence with domestic degrees. The corresponding examination is carried out by a central institution for international affairs at TU Braunschweig. When deciding on the equivalence of foreign degrees, the equivalence agreements approved by the Conference of Ministers of Education and Cultural Affairs and the German Rectors' Conference or

corresponding legal regulations must be taken into account. In case of doubt about the equivalence, the Central Office for Foreign Education should be consulted.

In addition, a degree obtained outside Germany can be recognised if the degree in question is deemed to be equivalent to a corresponding degree to be obtained at TU Braunschweig in accordance with § 4 (1) (a) or (b) on the basis of agreements between TU Braunschweig and partner universities outside Germany.

- (2) The applicant according to § 4 (1) (c) to (e) shall be subject to conditions according to § 4 (2) (a) or (b). These conditions shall be included in the notification of admission to doctoral studies in accordance with § 5 (3). Candidates must fulfil these conditions at the latest by the opening of the doctoral procedure in accordance with § 7.
 - a) Applicants according to § 4 (1) (c) or letter (d) must take knowledge examinations. The subjects are to be taken from the currently valid examination catalogue. These subjects must correspond to at least 20 credit points. The Faculty Council is responsible for determining the subjects and the examiners. Explanations can be found in the guidelines of the doctoral degree regulations (“Leitfaden zur Promotionsordnung”). The examinations are to be conducted by lecturers who are appointed examiners in the degree programmes of the Faculty of Mechanical Engineering.
 - b) Applicants according to § 4 (1) (e) must take knowledge examinations totalling at least 45 credit points. The Faculty Council is responsible for determining the subjects and examiners. Explanations can be found in the guidelines to the doctoral degree regulations (“Leitfaden zur Promotionsordnung”). The examinations are to be conducted by lecturers who are appointed examiners in the degree programmes of the Faculty of Mechanical Engineering.
- (3) Persons with outstanding aptitude who have been awarded a Bachelor's degree in Germany in a subject area represented at the Faculty of Mechanical Engineering may be admitted to the doctorate on the base of an aptitude assessment. Aptitude is assessed on the base of the following criteria:
 - a) The overall grade and the grade for the final thesis must both be at least ‘very good’.
 - b) Two expert opinions from members of the group of persons named in § 6 (1), which determine the applicant's special scientific qualifications.
 - c) The period of study up to the completion of the Bachelor's degree programme should not exceed the respective standard period of study.
 - d) The candidate is demonstrably among the top 5% of the graduating class of the respective calendar year.

In addition, knowledge tests in accordance with § 4 (2) (b) must be taken.

- (4) Applicants in accordance with § 4 (1) (e) who demonstrate their aptitude for in-depth academic work through special academic achievements may take knowledge examinations in accordance with § 4 (2) (a) upon written or electronic application. The Faculty Council decides on the application. Applicants who can demonstrate at least three years of

professional experience in research and development outside the Technische Universität Braunschweig are eligible to apply.

- (5) Upon written or electronic application, the Faculty Council will check whether the requirements according to § 4 (1) to (4) have already been met. If this is not the case, the dean shall inform the applicant whether and, if so, by which further conditions or knowledge tests the requirements can still be fulfilled. The application for examination must be accompanied by:
 - a) the certificates and evidence required in accordance with § 4 (1) to (4);
 - b) the expected subject or specialisation of the dissertation.

§ 5 Admission to the doctorate

- (1) Anyone who fulfils the admission requirements according to § 4 and intends to write a dissertation should apply to the Faculty of Mechanical Engineering for the admission to the doctorate and thus acceptance as a doctoral candidate in writing, electronically or by e-mail at the start of work on the dissertation.
- (2) Acceptance as a doctoral candidate expresses the fundamental willingness of the faculty to assess a dissertation on the intended topic as academic work and to supervise the doctoral candidate in the preparation of his or her work.
- (3) The application shall include:
 - a) proof of the admission requirements in accordance with § 4,
 - b) an indication of the envisaged topic of the dissertation and a written supervision agreement,
 - c) a curriculum vitae outlining the applicant's personal and professional background,
 - d) a statement on current or previous doctoral applications; if applicable, it must be stated when, with which topic and at which faculty or department the opening of a doctoral procedure was applied for,
 - e) proof of fulfilment of conditions imposed, if applicable.
- (4) The faculty generally decides on the application within 3 months, in the case of doctoral programmes at the start of the respective curriculum. If the admission requirements are not met, admission to the doctorate must be refused or admission must be granted on condition that the missing requirements are met.
- (5) The applicant shall be notified of the decision on admission to the doctorate in writing or electronically. Reasons must be given for any rejection and information on legal remedies must be provided.
- (6) The admission to the doctorate may be revoked for important reasons. The decision is made by the Faculty Council.
- (7) The admission to the doctorate expires after 10 years from the date of issue. Upon application, the Faculty Council may extend the admission period.

§ 6 Supervision

- (1) Supervisors can become:
 - a) Members of the group of professors of the Faculty of Mechanical Engineering,
 - b) Retired professors and professors on leave of absence from the Faculty of Mechanical Engineering,
 - c) Honorary professors of the Faculty of Mechanical Engineering,
 - d) Private lecturers of the Faculty of Mechanical Engineering who are not on leave of absence,
 - e) In the case of co-operative supervision, if appropriately qualified, also university lecturers, honorary professors, retired professors, professors on leave of absence and private lecturers not on leave of absence from other departments, faculties or universities.
- (2) Junior research group leaders who are funded on the basis of an external evaluation procedure by a research funding institution, in particular by the DFG's Emmy Noether Programme, the VW Foundation, the ERC or by equivalent organisations, or junior research group leaders who have been appointed to their position in an internal appointment procedure with the participation of external reviewers, may also be admitted as supervisors of doctoral theses with the approval of the Faculty Council.
- (3) The assumption of academic supervision must be proven by a written supervision agreement. Supervision takes place in accordance with the principles of 'Braunschweiger Betreuungscodex' (see Appendix 1).
- (4) If the supervisor according to § 6 (1) a) to d) leaves TU Braunschweig, the admission to the doctorate expires. However, the Faculty Council may, at the request of the supervisor, authorise the continuation of the supervision by this supervisor.
- (5) A supervisor may withdraw the supervision agreement for good cause. This must be communicated to the faculty in writing or electronically, stating the reasons. If no other supervisor in accordance with § 6 (1) (a) to (d) is available or can be found, admission to the doctorate shall lapse, but may be reapplied for and granted upon submission of a new written supervision agreement.
- (6) Co-operative forms of supervision by up to three supervisors are permitted. Proof of academic supervision must be provided in the form of a confirmation of supervision signed by all supervisors. In cooperative supervision, the principles of 'Braunschweiger Betreuungscodex' (see Appendix 1), in particular the regular professional discussions with all supervisors, should be adhered to.
- (7) If conflicts or disputes arise between the doctoral candidate and the supervisor during the doctoral procedure, both sides can contact the Senior Board of the Faculty of Mechanical Engineering. If necessary, other central institutions can be involved.

§ 7 Opening of the doctoral procedure

- (1) The application to open the doctoral examination procedure must be submitted in writing, electronically or by e-mail. The application must be accompanied by:
 - a) A copy of the valid identity card or passport,
 - b) a curriculum vitae outlining the applicant's personal and professional background,
 - c) a list of scientific publications and scientific presentations,
 - d) an abstract of the dissertation in German and English (one page DIN A4 each),
 - e) an electronic version of the scientific paper (PDF file, dissertation according to § 9),
 - f) a declaration of consent to the examination of the scientific paper with plagiarism detection software,
 - g) for joint doctoral procedures: A report written jointly by the participants on the collaboration on the dissertation, details of individual authorship for the respective parts of the dissertation, furthermore details of names, academic degrees, addresses of the persons involved in the group work as well as information on whether and, if applicable, which of the persons has already applied for or completed a doctoral procedure and used parts of the submitted work in the process,
 - h) an affidavit by the doctoral candidate in accordance with the model in Annex 4,
 - i) the list of activities signed by the supervisor,
 - j) Proof of the successful acquisition of interdisciplinary qualifications (§ 3 paragraph 4); in special cases, the Faculty Council may authorise exceptions upon request.
- (2) The Faculty Council decides on the opening of the doctoral procedure. The doctoral candidate shall receive a written or electronic notification of the decision.
- (3) The application to initiate the doctoral examination procedure may be withdrawn as long as no expert report on the dissertation has been submitted. Thereafter, withdrawal is only possible for important personal reasons, which may not be related to the doctoral procedure, upon application and with the authorisation of the Faculty Council.
- (4) By initiating the doctoral procedure, the doctoral candidate acquires the right to have the dissertation assessed.
- (5) The dissertation must not have been previously published; excerpts from previous publications of the dissertation are permitted.
- (6) The Dean's Office shall inform all university teachers in accordance with § 6 (1) (a) to (d) of the opening of the doctoral procedure in an appropriate manner and request their opinion within a period of two weeks as to whether they wish to participate in the doctoral procedure as a member of the doctoral committee and/or whether they wish to inspect the dissertation and the expert reports after receipt by the chairperson of the doctoral committee.
- (7) A new application to open a doctoral procedure is only permitted once and not before the expiry of one year after failing. This also applies if the first unsuccessful procedure took place at another university. If the submitted dissertation was rejected in the first procedure,

it may not be resubmitted for the purpose of a doctorate, not even in a modified form. When reapplying to open the doctoral examination procedure, the previous failed attempt must always be reported. The date of the first application, the university and the faculty or department to which the thesis was submitted and the subject of the thesis must be stated. The admission to the doctorate granted in accordance with § 5 shall remain valid for the renewed application to open the doctoral procedure.

§ 8 Examination Board

- (1) The Faculty Council appoints an examination board and its chairperson. The board shall consist of at least three members and may comprise up to six members. One member shall be appointed as chairperson. The chairperson must come from the group of persons specified in § 6 (1) (a) to (b). A further member must also come from the group of persons specified in § 6 (1) (a) to (d). Statements received in accordance with § 7 (6) must be taken into account. The faculty may appoint a deputy for each member of the examination board.
- (2) The doctoral committee discusses the acceptance and grading or rejection of a dissertation on the basis of written reports. It also conducts the oral examination and assesses the doctoral performance in this context.
- (3) Doctoral committees shall meet in closed session. The examination board is quorate if all members or their deputies are present. It decides by simple majority. Abstentions are not permitted. In the event of a tie, the chairperson has the casting vote. The resolutions are to be recorded in minutes.
- (4) The members of the examination board are obliged to maintain secrecy about facts that have become known to them in a closed session, unless a fact is already obvious or does not require secrecy due to its significance. Obligations of confidentiality based on the service and employment relationship remain unaffected.
- (5) The participation rights of university lecturers in doctoral procedures shall not be affected by their retirement, pension or annuity.

§ 9 Dissertation

- (1) With his or her dissertation, the doctoral candidate demonstrates his or her ability to achieve results through independent scientific work that serve the further development of the subject area from which the dissertation originates.
- (2) Several scientific papers, at least three and at most six, may also be recognized as a dissertation (cumulative dissertation) if they are interrelated and meet the requirements of paragraph (1) in their entirety. The cumulative theses must contribute to answering a common scientific question. At least two of the scientific papers must have already been published as journal articles or as conference papers with peer review, and at least a third must have been submitted for review. The status must be verified by an e-mail from the publisher. All scientific papers must be attached to the dissertation. Cumulative

dissertations must meet the minimum formal requirements specified by the faculty in Appendix 5.

- (3) An academic paper written jointly by no more than two persons may be recognised as a dissertation if the topic is suitable. The prerequisite is that the contributions to be taken into account for the doctoral procedure of one of the authors can be unequivocally attributed to this doctoral candidate and fulfil the requirements of § 9 (1). The contributions of the individual contributors must be comprehensively presented and described in the declaration in accordance with § 7 (1) (g). A cumulative dissertation in accordance with § 9 (2) is excluded in this case. The suitability of a topic for a joint dissertation shall be formally determined by the Faculty Council upon written or electronic application and after hearing the applicants and the supervising professors; this should take place before work on the dissertation begins if possible. If several doctoral procedures are to be carried out on the basis of a joint thesis, a joint doctoral committee and joint assessors shall be appointed. Each individual contribution is assessed separately. The oral examinations take place at different times.
- (4) As a rule, the dissertation shall be written in German or English. Writing in another language requires the approval of the Faculty Council. In any case, the dissertation must contain a summary in German.
- (5) Reviewers:
 - a) The Faculty Council appoints two or more reviewers for the assessment of the dissertation, who become members of the examination board upon appointment. All supervisors are reviewers. At least one reviewer may not belong to the circle of supervisors. At least one reviewer must be a full-time professor or a retired professor at the Faculty of Mechanical Engineering. The other reviewers may belong to the group of persons named in § 6 (1) or, if suitably qualified, to other departments, faculties or universities. If the Faculty Council appoints more than two reviewers, other persons who hold a doctorate may also be asked to submit a review in addition to the two persons to be appointed in accordance with § 9 (5) (a) sentence 2 or sentence 4.
 - b) The reviewers examine in detail and independently of each other whether the submitted dissertation can be accepted as a doctoral thesis. They assess the academic performance of a thesis to be accepted in their written reviews and award the following grades:
 - „ausgezeichnete Arbeit“ („excellent work“),
 - „sehr gute Arbeit“ („very good work“),
 - „gute Arbeit“ („good work“),
 - „genügende Arbeit“ („sufficient work“).
- (6) As a rule, the reviews should be submitted to the Chair of the Doctoral Committee in written or electronic form within three months of the start of the doctoral procedure. If a reviewer is unable to prepare their report within a reasonable period of time, a new reviewer may be appointed by the Faculty Council.

- (7) Once all reviews have been received, the chairperson of the examination board shall submit the reviews to the members of the doctoral committee and inform those university teachers who wish to view the dissertation and the reviews in accordance with Section 7 (6). They have the opportunity to view the dissertation and the reviews within two weeks and to lodge an objection to the acceptance, rejection or assessment of the dissertation in writing, electronically or by email. The objection must be justified.
- (8) The dissertation is accepted when all reviews have been received by the chairperson of the doctoral committee in written or electronic form and all reviews recommend acceptance of the dissertation. If inspection has been requested in accordance with § 7 (6), no objections may be lodged within two weeks of receipt of all reviews. Otherwise, the doctoral committee shall make the final decision on acceptance or rejection. Before reaching a decision, it may ask the Faculty Council to obtain further expert opinions.
- (9) Before the start of the oral examination in accordance with § 10, the grade must be determined and documented in accordance with § 9 (5) (b) so that the grade of the submitted dissertation is available before the oral examination. In addition, a comprehensible justification for the award of the grade must be written. The grade of the dissertation is used after the oral examination to determine the overall grade in accordance with § 11.
- (10) If the dissertation has been rejected, the doctoral procedure shall be terminated without success. A copy of the rejected thesis shall be kept on file together with all expert reports. The Dean shall inform the doctoral candidate of this in writing or electronically. § 7 (7) applies accordingly to a renewed application to open a doctoral examination procedure.

§ 10 Oral examination

- (1)
 - a) If the submitted dissertation has been accepted, the chairperson of the examination board shall immediately set the date for the oral examination and invite the members of the doctoral committee. The oral examination may take place at the earliest 14 days after the invitation.
 - b) The oral examination is generally conducted in German or English. Conducting the examination in another language requires the approval of the Faculty Council.
 - c) The oral examination is performed individually with each candidate. It is conducted by the chairperson of the examination board. The oral examination consists of two parts. It begins with an academic presentation by the doctoral candidate lasting around 30 minutes, followed by a discussion of a maximum of 15 minutes on the content of the dissertation. This examination section is open to the public. The chairperson has the right to allow questions from the audience. The second part of the oral examination is not public, but the chairperson may admit members of the audience. Only those who wish to submit or have already submitted an application for the opening of the doctoral examination procedure and will soon be taking the oral examination may be members of the audience. The doctoral candidate may request that no members of the audience be present during

the oral examination. This request must be granted. This examination section is to be conducted by the members of the examination board and generally lasts 45 minutes.

- d) The oral examination shall cover the relevant subject area based on the subject of the dissertation. The oral examination should show that the candidate not only has thorough knowledge in the narrower field of the dissertation, but also masters the general principles of the subject area.
- e) Immediately after the end of the oral doctoral examination, the examination board shall decide whether and with what result the oral examination has been passed. The following grades may be awarded:
 - „mit Auszeichnung bestanden“,
 - „mit sehr gut bestanden“,
 - „mit gut bestanden“,
 - „mit genügend bestanden“,
 - „nicht bestanden“.

If the oral examination is passed, the overall grade is determined in accordance with § 11, taking into account the assessment of the dissertation and the oral examination. The doctoral candidate shall be informed of the result immediately. Changes and additions to the dissertation may still be imposed. A protocol must be made of the subject of the oral examination and the result of the doctoral procedure.

- f) If the candidate fails to attend an oral examination without being excused, the examination is deemed to have been failed. In the event of an excused absence, a new date shall be set in accordance with § 10 (1) (a). The chairperson of the examination board shall decide whether to recognise the excuse.
- (2) A failed oral examination may be repeated once upon request. The application must be submitted within one week of failing the examination. The retake is possible after six months at the earliest; the Faculty Council decides on exceptions. If the candidate fails again, the doctoral attempt is deemed to have been definitively failed. The doctoral candidate will receive a corresponding notification from the Dean. § 7 (7) applies accordingly to a renewed application to open a doctoral examination procedure.
 - (3) The doctorate is completed when the oral examination is passed.

§ 11 Overall grade of the doctorate

- (1) The following assessments are provided for the overall rating:
 - „mit Auszeichnung bestanden“,
 - „sehr gut bestanden“,
 - „gut bestanden“,
 - „genügend bestanden“.

- (2) The overall grade results from the grades of the dissertation and the oral examination. A comprehensible justification for the overall grade must be written and signed by the members of the doctoral committee in accordance with § 8.

§ 12 Completion of the doctorate and certificate

- (1) The Dean shall issue a certificate following the decision of the Examination Board. This contains the title and the overall assessment of the doctorate. It must be noted on the certificate that this does not yet authorise the holder to use the doctoral degree.
- (2) The Dean shall award the doctorate by issuing the doctoral certificate. In addition to the degree awarded, this certificate shall contain the title of the dissertation and the overall assessment of the doctorate. The date of the oral examination is stated as the date of the doctorate. The doctoral certificate is issued in the appropriate form in accordance with the model in Annex 2.
- (3) The doctoral certificate will only be issued once proof of publication of the dissertation has been provided in accordance with § 13. Only the award of the doctoral certificate authorises the holder to use the doctoral degree.
- (4) The doctoral certificate may be renewed after 50 years if this appears appropriate in view of special academic merit or because of a particularly close connection between the jubilarian and Technische Universität Braunschweig. The Faculty Council decides on the renewal of the doctoral certificate.
- (5) If, prior to the award of the doctoral certificate, it transpires that the candidate has committed fraud in his/her doctoral performance or that essential requirements for admission to the doctorate have been erroneously assumed to have been met, the Faculty Council may declare the doctoral performance invalid.

§ 13 Publication of the dissertation

- (1) The doctoral candidate is obliged to make the dissertation available to the academic public in an appropriate manner by means of reproduction and dissemination. This obligation constitutes a unit in the sense of a scientific achievement.
- (2) Within one year of passing the oral examination in accordance with § 10, the doctoral candidate must make the dissertation accessible to the academic public. The Faculty Council may extend the deadline upon reasoned written or electronic request. The 'General Guidelines on the Publication and Submission of Dissertations' ("Allgemeinen Richtlinien über die Veröffentlichung und Ablieferung von Dissertationen"), as amended, adopted by the Faculty Council shall apply to publication.
- (3) Before publication, the final version must be submitted to the reviewers. They shall give their approval and inform the faculty of this in writing or electronically.
- (4) The published dissertation must bear a special title page in the appropriate form in accordance with the specimen in Annex 3.

§ 14 Withdrawal of the doctoral degree

- (1) A doctoral degree that has already been awarded may be withdrawn by cancellation or revocation. The withdrawal of the doctoral degree shall be governed by the applicable statutory provisions. The doctoral degree may also be withdrawn or revoked, except in the cases of §§ 48 and 49 of the Administrative Procedure Act (Verwaltungsverfahrensgesetz), if the holder has abused the claim of academic excellence associated with the university degree. A criminal offence may only be taken into account in accordance with the provisions of the Federal Central Criminal Register Act (Bundeszentralregistergesetz).
- (2) If the requirements for admission to the doctorate were not fulfilled without the candidate being guilty of deception or attempted deception, and if this fact only becomes known after the certificate has been issued, this deficiency shall be remedied by the submitted and recognised dissertation and the passing of the oral examination. Cancellation of the doctoral degree shall not be considered in this case.

§ 15 Inspection

After completion of the doctoral procedure, the doctoral candidate will be granted access to the doctoral file upon written or electronic request. The application must be submitted by the doctoral candidate no later than three months after the doctoral certificate has been issued. Section 32 of the Administrative Procedure Act (Verwaltungsverfahrensgesetz) applies accordingly.

§ 16 Appeal against decisions in the doctoral procedure

- (1) The candidate shall be notified in writing of the decisions on admission to the doctoral procedure, on the acceptance or rejection of the dissertation and on the oral examination. Every incriminating decision by the Faculty Council and/or the Doctoral Committee or another competent body must be substantiated and accompanied by information on legal remedies.
- (2) The person concerned may appeal against the decision within one month of notification in writing or for the record in accordance with §§ 68 ff. VwGO to the dean within one month of notification.
- (3) The Faculty Council shall decide on the objection.
- (4) If the objection is directed against a decision of the doctoral committee or the doctoral committee, the dean shall forward the objection to the doctoral committee or the doctoral committee for review. If the Doctoral Commission or Doctoral Committee changes its decision as requested, the Faculty Council shall remedy the appeal. Otherwise, the Faculty Council shall review the decision to determine whether
 - a) based on incorrect assumptions or irrelevant considerations,

- b) against generally recognised principles or assessment standards or
- c) legal provisions have been violated.

A final decision on the objection should be made within three months. If the objection is not upheld, the decision must be substantiated and include information on legal remedies.

§ 17 Honorary doctorate

- (1) In recognition of personal outstanding scientific achievements, characterised by
 - a) research work or
 - b) the application of scientific knowledge to technical problems; or
 - c) the creative planning and design of systems, machines and apparatus that have made a pioneering contribution to the development of the specialised field,
The Faculty of Mechanical Engineering may, with the approval of the Senate, confer the degree and dignity of Doctor of Engineering (Dr.-Ing. E.h.) as an outstanding distinction in the subject areas assigned to it..
- (2) The written or electronic application for an honorary doctorate must be submitted by at least three professors from the Faculty of Mechanical Engineering. The application must set out the academic achievements and must include the curriculum vitae and a list of publications of the person to be honoured.
- (3) The application shall be discussed by an Honours Committee appointed by the Faculty Council. It is chaired by the Dean. The committee shall also include at least three members who belong to the group of persons named in § 6 (1) (a) to (d). The committee draws up a written report on the personality and academic achievements of the person proposed for the honour. At least two external scientific reports must be obtained.
- (4) The Dean shall announce at the meeting of the Faculty Council preceding the resolution that a decision is to be made on an application for an honorary doctorate. At the same time, he or she shall point out that the application, the expert opinions and the report of the Honours Committee are available for confidential inspection by the members of the Faculty Council and the faculty's group of university lecturers in the office of the Faculty of Mechanical Engineering.
- (5) The Faculty Council shall conduct two readings. For the first of these two readings, all members of the faculty's university lecturers' group are invited as advisors. Following the second reading, the Faculty Council decides on the honour by secret ballot. A four-fifths majority of the voting members of the Faculty Council who hold a doctorate is required to accept the application for the honour.
- (6) If accepted, the Dean shall submit the application for the honour, together with all documents, to the University management for approval by the Senate. At the Senate meeting that precedes the resolution and takes place at least two weeks in advance, the University management shall announce that the application for the honour has been submitted and

that the documents are available for confidential inspection by the members of the Senate in the President's Office until the following Senate meeting.

- (7) The Senate shall decide on approval by a majority of the voting members.
- (8) Following approval by the Senate, the Dean shall award the honorary doctorate by presenting a certificate drawn up by the University management and the faculty management. The Dean invites to the ceremonial honour and appoints the speaker of the laudation. The management of the University has the right to participate in the presentation of the certificate.
- (9) The honorary doctorate must be communicated to the German academic universities and the Lower Saxony Ministry of Science and Culture.
- (10) The applicants must be informed of a negative decision.
- (11) Section 14 shall apply accordingly to the withdrawal of the honorary doctorate. The honorary doctorate may also be revoked if the personal distinction and recognition of the holder of the honorary doctorate has subsequently lost its basis and the reputation of the faculty and Technische Universität Braunschweig would be damaged by the use of the honorary doctorate. This is particularly the case if the holder has seriously violated the dignity conferred by the university degree, in particular by committing a criminal offense, or has abused the claim of academic excellence associated with the university degree. A criminal offense may only be taken into account in accordance with the provisions of the Federal Central Register Act. The Faculty Council decides on the withdrawal of the honorary doctorate with the approval of the Senate. Resolutions require a two-thirds majority of the voting members in each case.

§ 18 Joint doctorate with other universities

- (1) The implementation of joint doctoral procedures with one or, if applicable, several other universities in Germany or abroad entitled to award doctorates is based on an agreement between Technische Universität Braunschweig and the university or universities concerned.
- (2) Agreements which the Technische Universität Braunschweig concludes with other universities entitled to award doctorates on joint doctoral procedures may deviate from §§ 1– 17.
- (3) In order to promote the mobility of young academics, doctoral procedures can also be carried out jointly with foreign universities and a joint doctoral degree can be awarded. The prerequisite is that the foreign university has the right to award doctorates and that the degrees awarded by it are equivalent to those of German universities (or equivalent German universities). Further details are regulated in § 10 NHG.
- (4) Applicants who intend to carry out a doctoral procedure jointly supervised by the Faculty of Mechanical Engineering and a foreign faculty must apply to the deans of both faculties in good time. In order to be able to comply with the application, an agreement with the foreign university on the implementation of the binational doctoral procedure is required.

- (5) The agreement shall regulate in particular the procedure and the scope of the participation rights of both faculties in the assessment of performance and the determination of the final grade. It must be ensured that the participation rights of the university lecturers in accordance with § 7 (6) are given. If, in addition to the doctoral work to be completed at TU Braunschweig in accordance with § 3 (2), further work is required in accordance with the doctoral regulations of the foreign university, this must also be specified. Furthermore, the agreement must state that only one joint degree can be awarded on the basis of the doctoral candidate's academic achievements.

The applicant is entitled to use either the German or the foreign version of the doctoral degree. The names of the two universities may be added in brackets.

§ 19 Doctoral committee

- (1) The Faculty Council decides on doctoral matters. The Dean shall inform the applicants concerned of these decisions by means of a written notification.
- (2) The Faculty Council shall form a permanent Doctoral Committee to prepare its resolutions. This committee shall consist of two members of the group of university lecturers and one member with a doctorate from the group of academic staff. One member of the group of university lecturers chairs the Doctoral Committee. The Doctoral Committee may consult further advisory members.
- (3) The Faculty Council may also revocably transfer decision-making powers in doctoral matters to the Doctoral Committee. In such cases, the Chair of the Doctoral Committee shall assume responsibility for notification in accordance with § 19 (1) sentence 2. Decision-making authority cannot be transferred in matters of appeal.
- (4) The meetings of the Doctoral Committee are not public. Its members are bound to secrecy.
- (5) The Doctoral Committee is quorate if two members with voting rights are present. It passes resolutions by a simple majority of its members. Minutes shall be kept of the meetings of the Doctoral Committee. The minutes are to be treated confidentially.

§ 20 Entry into force and transitional provisions

- (1) These Doctoral Degree Regulations shall enter into force on the day following their public announcement. At the same time, the previously valid doctoral regulations of the Faculty of Mechanical Engineering of Technische Universität Braunschweig (published on 15.05.2017, TU-Verkündungsblatt No. 1172) shall cease to apply.
- (2) Doctoral candidates who have applied for admission to doctoral studies or the opening of the doctoral examination procedure before these regulations come into force shall continue the doctoral examination procedure in accordance with the previously applicable provisions. Upon written or electronic application, the present doctoral degree regulations may apply. It is then no longer possible to switch back to the old doctoral degree regulations. Notwithstanding the provisions of the previously applicable regulations, the provisions of

these regulations on the publication of the dissertation and the issuing of the doctoral certificate shall apply.

Annex 1 Braunschweig Code of Supervision

BRAUNSCHWEIGER BETREUUNGSKODEX

Preamble:

The Braunschweig Code of Supervision ensures that doctoral candidates at the Faculty of Mechanical Engineering at TU Braunschweig an excellent supervision in their targeted scientific work.

Supervision principles:

The Faculty of Mechanical Engineering's understanding of supervision is based on five supervision principles:

- **Early topic definition:**
At the beginning of the employment relationship or a scholarship holder, a topic is defined in the form of a supervision agreement, a doctoral thesis topic, but at least one doctoral area, is determined. The supervision agreement contains a description of the doctoral project and allows for targeted academic work. The supervision agreement includes compliance with the rules of good scientific practice (www.dfg.de).
- **Regular academic discussions:**
A doctoral project at the Faculty of Mechanical Engineering is characterised by cooperative collaboration. To this end, detailed discussions are held with each supervisor at least every six months to discuss the progress of the work. Each supervisor takes time to discuss the work, promotes the quality of the doctoral project through counselling and discussion and provides all available assistance for the success of the doctoral project.
- **Support with conference participation, publications, presentations:**
Every supervisor requires the doctoral candidate to produce publications and to present the doctoral topic at conferences. To this end, the supervisor provides a budget and provides support in terms of content.
- **Potential analysis and support through general further training measures:**
Each supervisor enables the doctoral candidate to participate in workshops to acquire additional interdisciplinary qualifications, which are determined jointly.
- **Prompt processing of submitted doctoral theses:**
Each supervisor will process submitted doctoral theses immediately in order to ensure that the doctoral process is completed as quickly as possible. to enable the doctoral procedure to be completed as quickly as possible.

In the event of possible problems during or in the context of a doctorate, a neutral arbitration board is available to the parties involved.

PROMOTIONSURKUNDE

Die Fakultät für Maschinenbau | The Faculty of Mechanical Engineering
der Technischen Universität Braunschweig | at Technische Universität Braunschweig
verleiht mit dieser Urkunde | hereby confers upon

[Titel, Name]

geboren am | born on

[Datum] in [Ort]

den akademischen Grad | the academic degree

[Doktor-Ingenieurin/Doktor-Ingenieur]

(Dr.-Ing.)

nachdem in ordnungsgemäßem | after the scientific qualification has been proven in an
Promotionsverfahren durch die Dissertation | ordinary doctoral procedure based on the dissertation

[Thema]

sowie durch die mündliche Prüfung am | followed by the oral examination and defense on

[Datum]

die wissenschaftliche Befähigung erwiesen und | For the overall performance
dabei das folgende Gesamtprädikat erteilt wurde: | the following grade has been awarded:

[Prädikat]

Braunschweig, [Datum]

[Siegel]

[Titel, Name]
[Präsidentin/Präsident] | President
Technische Universität Braunschweig

[Titel, Name]
[Dekanin/Dekan] | Dean
Fakultät für Maschinenbau

Annex 3 Template title page of the dissertation

[Titel der Dissertation]

Von der Fakultät für Maschinenbau
der Technischen Universität Braunschweig
zur Erlangung der Würde

[einer Doktor-Ingenieurin oder eines Doktor-Ingenieurs] (Dr.-Ing.)

genehmigte Dissertation

[kumulative Arbeit]

von:

geboren in:

eingereicht am:

mündliche Prüfung am:

Vorsitz:

Gutachter:

Druckjahr

Annex 4 Affidavit

Name: E-Mail-Adress:

Address: Zipcode, Place:

I hereby affirm in lieu of oath by my signature that I am familiar with and have complied with the rules of the doctoral regulations and that I agree to an examination in accordance with the provisions of the doctoral regulations. For the dissertation with the topic ...

[Title of the Dissertation]

I hereby make the following declarations:

- I have written the dissertation independently, have not adopted any sections of text from third parties without labelling and have indicated all aids and sources used by me.
- Third parties have neither directly nor indirectly received monetary benefits for mediation activities or for the preparation of the content of the dissertation submitted (i.e. the academic work must not have been acquired or mediated in part or in whole by third parties in return for payment or other consideration).
- I have not yet published this dissertation or submitted it as an examination paper for a state or other academic examination. I have not yet submitted the same or a substantially similar dissertation to another university as a dissertation.
- I am familiar with and have observed the "Grundsätze zur Sicherung guter wissenschaftlicher Praxis" at the Technische Universität Braunschweig and the guidelines of the Faculty of Mechanical Engineering "Berücksichtigung der Beiträge von Studierenden sowie von technischen und wissenschaftlichen Mitarbeiterinnen und Mitarbeitern zu Dissertationen".

I declare on oath that I have provided the above information to the best of my knowledge and belief the information is true and I have not concealed anything. I am aware of the criminal liability of a false affidavit, in particular the threat of punishment gern. § Section 156 StGB of up to three years imprisonment or a fine if the offence is committed intentionally or in accordance with § 163 Section. 1 StGB of up to one year's imprisonment or a fine if the offence is committed negligently.

Place, Date Signature

Annex 5 Formal minimum requirements for cumulative dissertations according to §9

In addition to the publications, the candidate must write an accompanying text of at least 15,000 words that places the publications in a common context.

First authorship (or shared first authorship for a maximum of two publications) is a prerequisite for a publication to be considered in the cumulative procedure. The specific contributions (thematic and percentage) of all authors must be stated for each publication.

Publication of data in a peer-reviewed journal is permitted, but a detailed scientific discussion of the data in the accompanying text or in the course of publication is required.

To initialise a cumulative dissertation, there should be a discussion between the supervisor and the candidate after acceptance of the second publication. Results are documented in the protocol of the doctoral supervision meeting. The supervisor's consent to the opening of a cumulative dissertation procedure is necessary and must be documented in an accompanying letter when the dissertation is submitted. The cover letter must explicitly state the publications planned for the thesis.

In consultation with the supervisor, the type of dissertation (monograph or cumulative dissertation) may be changed at a later date in justified cases.

Annex 6 Supervision Agreement

6.1 Supervision Agreement

between [doctoral candidate] and [supervisor]* and [further supervisor]

* The supervisor named at this point is responsible for ensuring adequate communication between the supervisors, the doctoral candidate and the Faculty of Mechanical Engineering.

The doctoral candidate intends to do a doctorate at the Faculty of Mechanical Engineering at the Technische Universität Braunschweig. The doctorate will be supervised by the above-mentioned supervisors.

The doctorate will probably be on the topic:

[Preliminary topic of the dissertation]

All supervisors agree to ensure supervision within the framework of the doctorate in compliance with the Braunschweig Supervision Code.

[Date, signature of doctoral candidate]

[Date, signature of supervisor]

[Date, signature of supervisor]

[date, signature of supervisor]

Important: The Doctoral Committee and finally the Faculty Council of the Faculty of Mechanical Engineering decide on admission to doctoral studies. Therefore, please submit all necessary documents for the application for admission to doctoral studies together with your confirmation of doctoral supervision to the office of the Faculty.

Further information and access to the forms can be found at:

www.tu-braunschweig.de/en/fmb/promotion

6.2 Cooperative supervision agreement

in accordance with the co-operation agreement

on the regulation of cooperative doctorates and the overall support of doctorates of [type of graduates] between Technische Universität Braunschweig and [institution/company/university] dated from [date].

[Doctoral candidate] intends to do a doctorate at the Faculty of Mechanical Engineering at Technische Universität Braunschweig.

The doctorate is supervised by [supervisor at TU Braunschweig, according to §6 of the doctoral regulations] and by [supervisor at the above-mentioned institution/company/university] [from the institute].

The estimated topic of the thesis will be:

[Preliminary topic of the dissertation]

The supervisors agree to ensure supervision within the framework of the doctorate in compliance with the Braunschweig Supervision Code.

[Date, signature of doctoral candidate]

[Date, signature of supervisor at the TU Braunschweig]

[Date, signature of supervisor at the above-mentioned institution/company/university]

Important: The Doctoral Committee and finally the Faculty Council of the Faculty of Mechanical Engineering decide on admission to doctoral studies. Therefore, please submit all necessary documents for the application for admission to doctoral studies together with your confirmation of doctoral supervision to the office of the Faculty.

Further information and access to the forms can be found at:

www.tu-braunschweig.de/en/fmb/promotion

Annex 7 General Guidelines for the Publication and Submission of Dissertations

For the publication of your dissertation, the thesis must in any case contain a sample title page, the wording of which corresponds to the template title page in Annex 3 of the doctoral regulations. If it is a cumulative dissertation, the title page must contain the addition 'Kumulative Arbeit'.

Printing of the dissertation by a publisher (with ISBN)

- The following must first be submitted to the Thesis Office of the University Library:
 - 4 publisher's copies printed free of charge. The university library certificate will be sent to the faculty by e-mail after submission and examination of the dissertation by the Thesis Office.
- The following must be submitted to the faculty:
 - Print approval of the reviewers.
 - Form about the type of publication.
 - An abstract of the dissertation (approx. one page DIN A4) with the supervisor's signature.
 - A publisher's certificate confirming the circulation of at least 150 copies (print-on-demand publications are permitted), stating the ISBN. Invoices or order confirmations, etc. will not be accepted.
- Notes:
 - One printed copy of each publication must be submitted to the members of the examination board.
 - Additional publication on the Internet is permitted, in consultation with the publisher.

Self-printing, e.g. in a copy shop (without ISBN)

- The following must first be submitted to the Dissertation Office of the University Library:
 - 20 printed copies free of charge (format: preferably DIN A5). The university library certificate will be sent to the faculty by e-mail after submission and examination of the dissertation by the Thesis Office.
- The following must be submitted to the faculty:
 - Print approval of the reviewers.
 - Form about the type of publication.
 - An abstract of the dissertation (approx. one page DIN A4) with the supervisor's signature.
- Notes:
 - One printed copy must be submitted to each member of the examination board.
 - 10 printed copies must be submitted to the supervising institute.
 - Additional publication on the internet is permitted.

Electronic publication

- The following must first be submitted to the Dissertation Office of the University Library:
 - 2 printed copies free of charge. The university library certificate will be sent to the faculty by e-mail after submission and examination of the dissertation by the Thesis Office. The current guidelines of the University Library apply to electronic submission (formats, etc.).
- The following must be submitted to the faculty for the issue of the certificate
 - Print approval of the reviewers.
 - Form about the type of publication.
 - An abstract of the dissertation (approx. one page DIN A4) with the supervisor's signature.
 - An informal declaration that the printed and electronic versions of the dissertation are identical.
 - A certificate from the supervising institute confirming the submission of 5 printed copies.
- Note:
 - - One printed copy must be submitted to each member of the examination board.