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Doctoral degree regulations

of the Technical University of Applied Sciences Würzburg-Schweinfurt for the cross-university doctoral center

of Aschaffenburg University of Applied Sciences, Coburg University, and the Technical University of Applied Sciences Würzburg-Schweinfurt

(Doctoral degree regulations NISys)

As of 20 March 2024

On the basis of Section 96 (7) Sentence 1 and 2 of the Bavarian Higher Education Innovation Act (BayHIG) of 5 August 2022 (Bavarian Law Gazette. p. 414, BayRS 2010-1-3-WK) as amended, the Technical University of Applied Sciences Würzburg-Schweinfurt (THWS) issues the following regulations:

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A) General

Section 1 Extent and application of the right to award doctorates

- (1) ¹The doctoral law at the Technical University of Applied Sciences Würzburg-Schweinfurt (THWS) is governed by the following regulations. ²The doctoral degree is completed at the doctoral center "Sustainable and Intelligent Systems (NISys)" and awarded by the Technical University of Applied Sciences Würzburg-Schweinfurt. ³The Technical University of Applied Sciences Würzburg-Schweinfurt cooperatively operates the doctoral center together with Aschaffenburg University of Applied Sciences and Coburg University of Applied Sciences and Arts. ⁴The degree-awarding institution, which is responsible for the conduct of the doctoral and examination process, is the institution to which the supervising examiner belongs in accordance with Section 12, either the Technical University of Applied Sciences Würzburg-Schweinfurt, or the cooperating higher education institutions, namely Aschaffenburg University of Applied Sciences or Coburg University of Applied Sciences and Arts. ⁵The doctoral center is responsible for the correct conduct of doctoral processes.
- (2) At the doctoral center NISys, the following doctoral degrees are awarded: "Dr.-Ing.".
- (3) ¹The university management of the Technical University of Applied Sciences Würzburg-Schweinfurt, in agreement with Aschaffenburg University of Applied Sciences and Coburg University of Applied Sciences and Arts, and the competent board of management of the doctoral center, issues regulations defining positive criteria for the award of the doctoral degree and for determining of the quality assurance measures applied. ²These form the basis for the rationale of the doctoral degree pursued in accordance with Section 6 (1) Sentence 3 and its award in accordance with Section 11 (1).

Section 2 Objective and type of doctorates

- (1) ¹The objective of doctoral studies is to establish the doctoral candidate's ability to carry out independent scientific work in a specified discipline or research field. ²Doctoral studies are independently completed academic achievements that contribute significantly to the progress in the research field. ³The doctoral work consists of a dissertation in accordance with Section 7 and the oral examination (*Disputation*), which proves the candidate's ability to carry out independent scientific work.
- (2) ¹Doctoral studies are embedded in a qualification programme. ²The doctoral committee, in agreement with the director of the doctoral center, issues regulations determining the type and extent of the work to be completed. ³These are part of the preconditions for admission to doctoral studies in accordance with Sections 10 and 11.
- (3) Doctoral studies shall not exceed a period of five years.

Section 3 Requirements for commencement of doctoral degree studies

- (1) A doctoral degree may be pursued by candidates who
 - 1. possess the educational requirements set out in Sections 4 and 5,
 - 2. have completed the qualification programme of the doctoral center,
 - 3. submit a scholarly project of their own (dissertation in accordance with Section 7), proving their ability to conduct independent scholarly work, and give a clear presentation of the results.
 - 4. prove, in an oral examination (*Disputation*), thorough knowledge of the disciplines to which the dissertation is dedicated in accordance with Section 17 (1),
 - 5. are worthy in the sense of the legal regulations governing the use of academic degrees, i.e. there is no final criminal conviction related to their academic activity that would render the candidate unworthy,
 - 6. do not already hold the doctoral degree in question,
 - 7. have not irreversibly failed a previous attempt at the doctorate for the same degree or for the same dissertation at the Technical University of Applied Sciences Würzburg-Schweinfurt or another higher education institution.
- (2) Engaging professional dissertation writing or consulting services to obtain a doctoral degree is prohibited; candidates must confirm they have not used such services by signing the declaration attached as Appendix 1.

Section 4 Admission based on a degree obtained from a domestic higher education institution

¹The educational requirements are proven through either an above-average master's examination after completion of a master's programme in a relevant field, or through a comparable qualification. ²An above-average performance is deemed to have been achieved if the final examination was passed with an overall grade of at least 2.5 or with a designation of at least "passed with merit (*Gut bestanden*)". ³In exceptional cases, above-average performance may also be proven by outstanding academic achievements, such as peer-reviewed publications, which were produced after completion of the relevant studies; the director of the doctoral center decides following an examination by the doctoral committee. ⁴The decision regarding comparability and possible requirements for fulfilling the educational requirements is made by the director of the doctoral center upon recommendation of the doctoral committee.

Section 5 Admission based on a degree obtained from a foreign higher education institution

(1) ¹Degrees obtained from a foreign higher education institution are accredited upon request if they are comparable to the examinations stated in Section 4 Sentence 1. ²The director of the doctoral center decides upon comparability. ³The Equivalency Agreements issued by the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder (*Kultusministerkonferenz*) and the German Rectors' Conference (*Hochschulrektorenkonferenz*) apply. ⁴If the director of the doctoral center is unable to determine equivalence on the basis of these documents, the Central Office for Foreign Education of the Standing Conference is to be consulted on the question of equivalence; its opinions are to be taken into account and a decision deviating therefrom is to be justified.

(2) ¹The director of the doctoral center also decides whether above-average performance within the meaning of Section 4 Sentence 3 has been demonstrated. ²In order to determine whether the foreign final examination meets the requirement of the above-average performance, the result of the foreign examination is converted into the German grading system by applying the "Agreement on the Determination of the Overall Grade for Foreign University Entrance Certificates" (Resolution of the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder of 14/15 March 1991, as amended).

Section 6 Acceptance of doctoral candidates and membership in the doctoral center of the Technical University of Applied Sciences Würzburg-Schweinfurt

- (1) ¹An application for entry on the doctoral candidacy list must be submitted with the doctoral center in writing or as indicated by the director of the doctoral center. ²The request is to be granted, provided that
 - the documents verifying educational prerequisites according to Sections 4 and 5 have been submitted in electronic form with a verification code or as an officially certified copy;
 - a dissertation topic has been assigned by the primary supervisor, who is a member of the doctoral center according to Section 8 of the Technical University of Applied Sciences Würzburg-Schweinfurt, or the cooperating higher education institutions, Aschaffenburg University of Applied Sciences and Coburg University of Applied Sciences and Arts;
 - an application for admission to the doctoral center has been submitted within the scope of a supervision agreement between the applicant and the supervisor. The doctoral committee, in agreement with the director of the doctoral center, issues regulations governing form and content of the supervision agreement;
 - 4. a written outline (exposé) of 3 to 5 pages (excluding bibliography) has been submitted for the doctoral project to be completed. The outline (exposé) shall cover the suggested topic, the state of research, the objectives, the level of innovation, and the contribution of the project, describing the approach and the methods intended.
 - 5. a data sheet for statistical data collection in compliance with the requirements of the Bayarian State Office for Statistics has been submitted.

³Applicants will be issued official notification of the decision; a rejection must be substantiated. ⁴Entry on the doctoral candidacy list must not be regarded as a decision to initiate the doctoral examination process.

- (2) ¹Upon entry on the doctoral candidacy list, candidates become members of the doctoral center. ²Terminating the doctorate results in removal from the doctoral candidacy list and thus termination of membership in the doctoral center.
- (3) ¹Candidates wishing to withdraw from the doctoral process may terminate the supervisory relationship at any time. ²The supervisory relationship may also be terminated at any time by mutual agreement. ³The supervisor may only terminate the supervision agreement unilaterally if there are valid academic reasons or if the relationship of trust has been ruptured. ⁴Before unilateral termination of a supervision agreement by a supervisor, a feedback meeting resulting in a negative outcome must have taken place, a mediation meeting must have failed, and, after consultation with the supervisor and the doctoral candidate, it must

be determined by the director of the doctoral center that the supervisory relationship is to be terminated. ⁵In this case, the doctoral center may facilitate an alternative, professionally appropriate supervisory relationship, unless the doctoral candidate has forfeited their right to continue the doctorate through their conduct. ⁶This will be determined by the director of the doctoral center and communicated by decision of the president of the Technical University of Applied Sciences Würzburg-Schweinfurt.

Section 7 Dissertation

- (1) The dissertation consists of a monograph or of published articles put in scientific context (cumulative or publication-based dissertation).
- (2) Regardless of its form, the dissertation must demonstrate the candidate's ability to carry out independent scientific work according to Section 2 (1).
- (3) ¹The cumulative or publication-based dissertation must provide a description of the scientific problem, the approaches used to solve it, results and conclusions achieved and related literature, all of which are to be presented in such a way as to express the position and classification of the work in an overarching scientific context and its contribution to the scientific dialogue beyond the articles on which the publication-based dissertation is based on. ²For this purpose, the doctoral committee in agreement with the director of the doctoral center adopts guidelines that define the scope of the written text and the number, type, requirements, and weighting of the publications and ensure that, in the case of joint publications, individual contributions are made transparent and that the relevant confirmations of co-authors are provided.
- (4) The dissertation must be written either in German or English.
- (5) The dissertation must be a candidate's original work.
- (6) ¹Any parts of the dissertation that have previously been published must be identified as such. ²A candidate's work that has already been used for examination purposes may not be submitted as a dissertation; however, results from this work may be used for the dissertation, whereby the work in question must be identified as such in the text and marked in the bibliography.

Section 8 Appointment of supervisor

- (1) ¹Dissertations are written under the supervision of generally at least two professorial members of the doctoral center. ²Professorial members of the doctoral center may be members of any higher education institution involved in the doctoral center.
- (2) ¹The primary supervisor must be a member of the doctoral center; they must thus meet the criteria of strong research performance according to Section 13 (2) AVBayHIG. ²Additionally, the primary supervisor shall have appropriate experience in the supervision of doctorates.
- (3) ¹The secondary supervisor shall be a member of the doctoral center. ²In just exceptional cases, the following persons may be appointed as secondary supervisor:

- Professors of the higher education institutions involved in the doctoral center, or of other technical universities of applied sciences or universities of applied sciences if they hold a doctorate and can prove an academic qualification in the field of the dissertation, and meet at least one criterion proving strong research performance according to Section 13 (2, 3) AVBayHIG;
- 2. university professors who hold a doctorate.
- (4) Before supervisors are appointed, it must be ensured that they have the time available required to supervise the thesis until the assumed date of completion.
- (5) If a supervisor leaves their higher education institution before completion of the doctoral procedures, they may still be appointed as examiner to the examination committee for the ongoing doctoral procedure.
- (6) In just exceptional cases, the doctoral committee may by themselves, or upon request of the persons involved in the doctoral procedure, appoint replacement supervisors, in particular in cases where the supervisor is no longer able to take on supervision.

Section 9 Supervision and guidance of the dissertation

- (1) The supervisory relationship starts with the acceptance of the doctoral candidate according to Section 6; acceptance is a prerequisite, too.
- (2) Supervision entails regular scientific advice, acceptance of sketches or interim reports, and conversations discussing the doctoral candidate's progress as well as providing the doctoral candidate with support as stipulated in the supervision agreement.

B) Application for commencement of the doctoral examination process

Section 10 Submission of dissertation

¹Candidates must apply with the doctoral center of the Technical University of Applied Sciences Würzburg-Schweinfurt in writing to initiate the doctoral examination process, or in a form indicated by the director of the doctoral center. ²The application may only be submitted by doctoral candidates included on the doctoral candidacy list (according to Section 6). ³The following documents must be enclosed with the application:

- 1. The title of the dissertation;
- 2. An electronic version (PDF-file) of the dissertation according to Section 7 (1) through (3);
- 3. A summary of the dissertation of about one page, as well as an English translation of the title and the summary if the dissertation was not written in English;
- 4. A sworn statement of the applicant in accordance with Appendix 1;
- 5. List of previous publications in accordance with Section 7 (6);
- 6. Confirmation of participation in the qualification programme;

- 7. Curriculum vitae of the applicant indicating the educational background in particular:
- 8. A current certificate of good conduct.

Section 11 Opening of doctoral examination process

- (1) The doctoral center verifies whether the application meets the requirements of Section 10.
- (2) ¹The application may be rejected only if
 - 1. the admission requirements set out in Section 3 have not been fulfilled,
 - 2. the verification set out in Section 10 is incomplete or incorrect, or
 - 3. the doctoral center is not responsible for carrying out the doctoral examination process.
 - ²Candidates must be informed promptly in writing if their application has been rejected and on what grounds. ³The rejection notification must be accompanied by information on legal remedies.
- (3) ¹If the application fulfils the requirements set out in Section 10, if the admission requirements set out in Section 3 are fulfilled, and if the doctoral center is responsible according to Section 11 (2) No. 3, the director of the doctoral center promptly informs the candidate of the initiation of the doctoral examination process in writing; simultaneously, the director of the doctoral center will initiate the process according to Section 12 et seq. as soon as possible. ²The director of the doctoral center should make every effort to see that the oral examination (*Disputation*) is held, as a rule, within six months.

C) Assessment of the dissertation

Section 12 Doctoral examination committee

- (1) ¹The doctoral committee appoints a doctoral examination committee consisting of a chair, a primary examiner, and a secondary examiner. ²If the doctoral committee deems the appointment of another examiner necessary, a third examiner may be appointed; however, the third examiner may also be appointed in the further course of the process. ³The chair and the primary examiner must be professorial members of the doctoral center. ⁴The other examiners may be professorial members of the doctoral center or another person according to Section 8 (3). ⁵If eligible, supervisors are generally appointed as examiners. ⁶The chair may not serve concurrently as a supervisor.
- (2) ¹Primary examiners must prove involvement in at least one successfully completed cooperative or independent doctoral examination process. ²In addition to the criteria for proving strong research performance according to Section 13 (2) AVBayHIG, sufficient experience as supervisor of doctoral processes and as examiner of dissertations must be proven.
- (3) With appointment as examiner, the authorisation to serve as examiner for this doctoral examination process is deemed established.

Section 13 Assessment of the dissertation

- (1) ¹The director of the doctoral center submits the application for initiation of the doctoral examination process with all accompanying documents to the chair of the examination committee. ²The chair forwards the dissertation to the examiners for assessment.
- (2) ¹Each examiner assesses the dissertation independently and attaches a written report including an assessment, applying the grading scale as stated in Section 19 (2), and taking into consideration Section 2 (1). ²The reports are to be submitted to the chair. ³The chair ensures that the reports are submitted in a timely manner (as a rule no later than within three months).
- (3) Once at least one report has been submitted to the chair of the doctoral examination committee, the application can no longer be withdrawn.
- (4) ¹If one of two examiners rates the dissertation below grade 3, the doctoral committee must appoint a third examiner who fulfils the requirements to be met by a primary examiner. ²If the individual grades assigned by the primary and secondary examiner differ by more than two grades on the grading scale according to Section 19 (2), as a general rule, a third examiner is appointed who fulfils the requirements to be met by a primary examiner.
- (5) ¹Admission to the oral examination (*Disputation*) requires at least two assessments of the thesis graded with grade 3 or better; otherwise the attempt at the doctorate is failed and the doctoral examination process is terminated. ²The doctoral examination committee decides whether the dissertation may be re-submitted with significant revision or whether an entirely new dissertation is necessary; the decision must be unanimous. ³Section 18 (2) Sentence 2 and Section 21 (1) apply accordingly.

(6) Within the scope of assessment of the dissertation, the doctoral center and the examiners may use special software to check for plagiarism.

Section 14 Involvement of teaching faculty

¹The teaching faculty of the doctoral center consists of all professorial members of the higher education institutions involved in the doctoral center. ²If the dissertation is accepted for oral examination (*Disputation*) according to Section 13 (5), the chair ensures that the dissertation, together with the examiners' reports, is made available to the teaching faculty in digital form for decision.

Section 15 Acceptance of the dissertation

- (1) ¹The dissertation is accepted if, within a period set by the director of the doctoral center of at least two to a maximum of four weeks, no professorial member of the doctoral center rejects the dissertation. ²In cases of rejection, a written report must be submitted within two weeks. ³If the reasons for rejection are substantial, the doctoral committee makes the final decision.
- (2) ¹If the dissertation is rejected, the attempt at the doctorate is failed and the doctoral examination process is terminated. ²Section 18 (2) Sentence 2 and Section 21 (1) apply accordingly.

D) Oral examination (*Disputation*)

Section 16 Invitation to the oral examination (Disputation)

- (1) ¹If the dissertation has been accepted in accordance with Section 15 (1), the chair of the doctoral examination committee will schedule and supervise the oral examination (*Disputation*). ²The chair ensures that the oral examination (*Disputation*) is held in a timely manner (as a rule no later than within three months).
- (2) ¹The chair invites the doctoral candidate, the doctoral examination committee, and the other members of the doctoral center authorised to conduct examinations at least one week in advance. ²The invitation of the other authorised examiners of the doctoral center may also be made via electronic notification. ³Data protection regulations must be observed. ⁴In agreement with the doctoral candidate, the doctoral examination committee may admit members of the public to the audience; in some cases they may be admitted for only parts of the examination; in this case, the doctoral examination committee announces the date of the oral examination (*Disputation*).
- (3) ¹In consultation with the doctoral candidate, the doctoral examination committee may determine that the oral examination (*Disputation*) is to be conducted in the form of a video conference or by transmission of one or more participants ²The software approved for this purpose by the Technical University of Applied Sciences Würzburg-Schweinfurt is to be used. ³In this case, the invitation is issued in electronic form by sending a link; the other authorised examiners of the doctoral center wishing to take part must inform the chair of

the doctoral examination committee of their interest no later than three working days before the scheduled examination. ⁴The chair enables participation.

Section 17 Oral examination (Disputation) and assessment

- (1) ¹Each doctoral candidate will be examined individually; the oral examination (*Disputation*) generally lasts between one hour and 1.5 hours. ²Official records must be kept. ³The examination consists of a presentation of the contents of the dissertation of no more than 30 minutes, and a subsequent discussion, which may cover the topic of the dissertation and the broader discipline to which the dissertation is dedicated.
- (2) The oral examination (*Disputation*) is generally conducted in the language of the dissertation.
- (3) ¹The oral examination (*Disputation*) is conducted by the doctoral examination committee. ²The chair may allow questions of other authorised examiners. ³Assessments will be given only by examiners. ⁴The chair ensures that each examiner is allotted and fulfils their duties as examiner in an adequate share of the examination time.
- (4) ¹The oral examination (*Disputation*) must be graded according to Section 19 (2). ²Each member of the doctoral examination committee attributes one grade. ³The overall grade of the oral examination (*Disputation*) results from the arithmetic mean of the grades awarded by the individual members of the doctoral examination committee. ⁴The oral examination (*Disputation*) is considered passed if an overall grade of 3.5 or better is reached. ⁵The grade of the oral examination (*Disputation*) is discussed non-publicly.
- (5) ¹If one of the grades awarded is below grade 3.5, or if the candidate fails to appear for the oral examination (*Disputation*) on grounds attributable to the candidate, the oral examination (*Disputation*) has been failed. ²In that case, Section 18 (2) Sentence 2 shall be applied.

E) Completion of examination

Section 18 Examination result

(1) ¹After completion of the oral examination (*Disputation*), the members of the doctoral examination committee determine whether the examination has been passed and whether the doctoral degree is awarded. ²If necessary, the members of the doctoral examination committee indicate the changes to be made to the dissertation by the doctoral candidate. ³These changes must be recorded on the assessment form together with a time limit of three months maximum. ⁴The chair is responsible for verifying compliance with the requirements. ⁵The chair approves the release before publication. ⁶The assessment of the oral examination (*Disputation*) and changes, if required, must be indicated in the official protocol.

- (2) ¹The chair of the doctoral examination committee informs the doctoral candidate of the assessment of the oral examination (*Disputation*), the dissertation, and the overall assessment following the oral examination (*Disputation*). ²If the examination was failed, the doctoral candidate receives written notification stating the options to repeat the examination.
- (3) After completion of the doctoral examination process, the candidate will have the opportunity to inspect the examination records within one year.

Section 19 Grade awarded to the doctorate

- (1) The date of conferral of the doctoral degree will be the date of successful completion of the oral examination (*Disputation*).
- (2) ¹The overall assessment of the doctorate is determined from the individual assessments made by the examiners for the dissertation and the oral examination (*Disputation*), whereas the weighting assigned to the dissertation is 2/3 and the weighting assigned to the oral examination (*Disputation*) is 1/3. ²If the overall grade differs from the arithmetic mean by up to 0.5, the better grade is assigned. ³The overall result is considered passed if an overall grade of 3 or better is reached. ⁴One of the following grades is to be assigned:
 - magna cum laude = 1 = "very good" = an outstanding scientific performance
 - cum laude = 2 = "good" = an above-average performance
 - rite = 3 ="satisfactory" = a performance fulfilling average requirements
 - insufficienter = 4 = "insufficient" = a performance that does not fulfil average requirements

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(3) Following the oral examination (*Disputation*)" examiners may submit a joint request to the doctoral committee to assign the overall grade of summa cum laude = "with distinction" for outstanding performance.

Section 20 Retention of examination and dissertation records

- (1) After successful completion of the doctoral examination process, the examination records will be kept at the office of the doctoral center of the Technical University of Applied Sciences Würzburg-Schweinfurt; one copy will be kept on file at the doctoral center.
- (2) If the attempt at the doctorate is irreversibly failed, the dissertation with the examiners' reports remains on file at the office of the doctoral center of the Technical University of Applied Sciences Würzburg-Schweinfurt.

F) Option to repeat failed parts of the doctoral programme

Section 21

- (1) Where a dissertation is rejected for the first time by the doctoral center in accordance with Section 13 (5) Sentence 1 or Section 15 (2) and the attempt at the doctorate is therefore failed, the candidate, generally after a period of at least six months and within a deadline of two years from receipt of the rejection notice, may submit a new dissertation or, with the approval of the doctoral examination committee as set out in Section 13 (5) Sentence 2, a revision of the original dissertation to the doctoral center.
- (2) ¹If the doctoral candidate does not submit a revised or a new dissertation within the deadline set out in (1), the attempt at the doctorate is deemed irreversibly failed. ²In this case, the doctoral candidate receives written notification. ³The protection periods specified in the German Maternity Leave Act (*Mutterschutzgesetz*) must be observed. ⁴In addition, parental leave in accordance with the Federal Parental Allowance and Parental Benefit Act (*Bundeselterngeld- und Elternzeitgesetz*) and periods of nursing care in accordance with the Family Caregiver Leave Act (*Pflegezeitgesetz*) shall be taken into account.
- (3) ¹Where one of the grades awarded for the revised or new dissertation pursuant to Section 13 (5) is below grade 3, or where the dissertation is rejected in accordance with Section 15 (1), the attempt at the doctorate is deemed irreversibly failed. ²In this case, the doctoral candidate receives written notification.
- (4) ¹Where the dissertation submitted to the doctoral center was graded "pass" by all examiners, but the oral examination (*Disputation*) was failed, the candidate must retake only the oral examination (*Disputation*). ²The examination may be repeated only once, no earlier than three months and no later than one year after the failed oral examination (*Disputation*). ³If this deadline is not met, the doctoral candidate is no longer entitled to request that their dissertation be accepted, and the attempt at the doctorate is deemed irreversibly failed. ⁴A second opportunity to repeat the oral examination (*Disputation*) is possible only in cases of hardship of which the chair of the doctoral examination committee must be informed in writing; the doctoral examination committee must decide by unanimous vote.

G) Reasonable accommodation, consideration of leave

Section 22

- (1) ¹For the conduct of the doctoral examination process, consideration is to be given to the type and severity of any disability. ²If a doctoral candidate can credibly demonstrate that they are unable to take the examination or complete the required work in whole or in part in the stipulated form due to a long-term or permanent physical disability or chronic illness, this may be compensated for by an appropriate extension of the working time or a different arrangement of the examination process or the work to be completed. ³A medical certificate must be submitted upon request.
- (2) The doctoral committee makes decisions in accordance with (1) on a case-by-case basis.

(3) ¹For the conduct of the doctoral examination process, the protection periods specified in the German Maternity Leave Act (*Mutterschutzgesetz*) must be observed. ²In addition, parental leave in accordance with the Federal Parental Allowance and Parental Benefit Act (*Bundeselterngeld- und Elternzeitgesetz*) and periods of nursing care in accordance with the Family Caregiver Leave Act (*Pflegezeitgesetz*) shall be taken into account.

H) Publication of the dissertation

Section 23

¹After passing the oral examination (*Disputation*), the doctoral candidate must make the authorised version of the dissertation in accordance with Section 18 (1) Sentence 5 available to the scholarly public by means of reproduction and dissemination. ²The manuscripts accepted for publication and published in print or electronic journals attached as an appendix in accordance with Section 7 (3) Sentence 2 are exempt from the obligation to publish. ³In addition to an abstract in German and English, the doctoral candidate must deliver for the purpose of publication and free of charge:

- 1. Seven copies in paper form to the library of the Technical University of Applied Sciences Würzburg-Schweinfurt and one electronic version of the dissertation, the file format and data carrier of which correspond to the specifications of the library of the Technical University of Applied Sciences Würzburg-Schweinfurt; the doctoral candidate transfers to the library of the Technical University of Applied Sciences Würzburg-Schweinfurt, the German National Library, and the Bavarian State Library the right to publish the electronic version in data networks for an unlimited period of time and to make it accessible to other databases and assures that the electronic version corresponds to the accepted version of the dissertation. The doctoral candidate is obliged to check the metadata and the network version of their dissertation for completeness, correctness, and readability. The submission of files that do not comply with the required specifications regarding file format and data carrier is not considered as publication. The doctoral candidate grants the Technical University of Applied Sciences Würzburg-Schweinfurt the right to produce and disseminate further copies of the dissertation.
- 2. Seven copies in book form or photocopied form, if the dissertation is published unabridged in the main in a scientific magazine.
- 3. Seven copies if a commercial publisher undertakes its distribution through the book trade. The publication must contain an ISBN- or ISSN-number and on the backside of the title page the denomination as dissertation indicating the place of dissertation. Doctoral candidates must grant the Technical University of Applied Sciences Würzburg-Schweinfurt the right to obtain up to 30 additional copies at cost price.

⁴The dissertation copies to be submitted must contain a title page as set out in Appendix 2. ⁵The dissertation must be published within one year after the oral examination (*Disputation*). ⁶The chair of the doctoral committee may consider the obligation to make the dissertation available to the scholarly public fulfilled even if the publication is delayed due to a non-disclosure notice in a patent registration.

I) Issuance of doctoral degree and certificate

Section 24

- (1) As verification of the award of the doctoral degree, the candidate receives a preliminary certificate by the Technical University of Applied Sciences Würzburg-Schweinfurt as indicated in Appendix 3, provided the dissertation has been passed and the copies of the dissertation as set out in Section 23 have been submitted within the required deadline.
- (2) Prior to receipt of the preliminary certificate, candidates do not have the right to use their doctoral degree or title.
- (3) ¹The doctoral candidate receives a certificate in German and English in accordance with Appendix 3 bearing the seal of the Technical University of Applied Sciences Würzburg-Schweinfurt and the date of the completion of the doctoral degree in accordance with Section 19 (1). ²Date and form of issuance to the doctoral candidate will be determined by the doctoral center.
- (4) The cooperating higher education institutions of the doctoral center, Aschaffenburg University of Applied Sciences and Coburg University of Applied Sciences and Arts, are also indicated on the certificate with their respective name and logo.
- (5) The primary supervisor is indicated on the certificate with name and the name of the higher education institution they are a member of.

J) Invalidation of doctoral degree

Section 25

¹If, prior to the award of the degree certificate, it is established that a candidate was granted permission to commence the doctorate by misrepresentation, or by practiced or attempted deceit, the director of the doctoral center must declare the doctoral work invalid, and the doctoral examination process as irreversibly failed. ²The doctoral candidate is informed of this decision in writing. ³On expiry of the time limit for appeal, the president is notified of the declaration of the invalidity of the doctoral degree, which they communicate to all German higher education institutions.

K) Withdrawal of the doctoral degree

Section 26

¹Revocation of a conferred doctoral degree is subject to Art. 101 of the Bavarian Higher Education Innovation Act (BayHIG). ²After consulting with the doctoral committee, the director of the doctoral center makes this decision. ³The president of the Technical University of Applied Sciences Würzburg-Schweinfurt informs all German higher education institutions of the revocation of the doctoral degree stating the reasons.

L) Final stipulations

Section 27 Entry into force, validity

¹These doctoral degree regulations shall come into effect on 15 March 2024. ²These doctoral degree regulations govern all ongoing doctoral examination processes until their completion, even in the case of discontinuance of the doctoral center.

Drawn up based on the resolution of the Senate of the Technical University of Applied Sciences Würzburg-Schweinfurt of 18 March 2024 and based on the approval of the President of the Technical University of Applied Sciences Würzburg-Schweinfurt in accordance with Section 9 Sentence 3 BayHIG of 20 March 2024.

Würzburg, 20 March 2024

Professor Dr. Jean Meyer President

The doctoral degree regulations NISys at the Technical University of Applied Sciences Würzburg-Schweinfurt were laid down at the Technical University of Applied Sciences Würzburg-Schweinfurt on 20 March 2024. This was communicated on 23 March 2022 by notice. Therefore, the date of publication is 20 March 2024.

Appendix to the doctoral degree regulations

Appendix 1 Sworn statement

Appendix 2 Title page of the dissertation

Appendix 3 Certificate

Appendix 1 Sworn statement

Regarding the application to admit	
Ms/Mr	
to the doctoral examination process at the doctor	al center "Sustainable and Intelligent Sys-
tems" at the Technical University of Applied Scie	nces Würzburg-Schweinfurt.
I herewith declare in lieu of oath that	
o I have completed this dissertation without any	y other assistance and using only the sources
and aids indicated,	
o I have not received this doctoral process opp	portunity against payment and that I have not
engaged any person or organisation that see	eks supervisors for the preparation of disser-
tations in return for payment,	
o I have not yet submitted this dissertation in a	ny other examination process,
o I have not yet earned or have irreversibly failed	ed in a previous doctoral examination process
for the doctoral degree I am seeking.	
I am aware of the publicly accessible doctoral de	gree regulations of the doctoral center "Sus-
tainable and Intelligent Systems". In particular, I h	nave taken note of the meaning of Section 25
(Invalidation of the doctoral degree) and Section	26 (Revocation of the doctoral degree). I am
aware of the consequences of giving a false swo	rn statement.
Information on the form of the dissertation:	
o The dissertation is not based on articles alrea	ady published, or the dissertation is not con-
sidered a publication-based dissertation.*	
o The dissertation is considered a publication-b	pased dissertation in accordance with Sec-
tion 7. I am aware of the doctoral degree regi	ulations of the doctoral center.*
* Please mark with a cross where applicable	
(Place, date)	(Signature)

Appendix 2 Title page of the dissertation

Doctoral center "Sustainable and Intelligent Systems" (Cooperative doctoral center of the Technical University of Applied Sciences Würzburg-Schweinfurt, Aschaffenburg University of Applied Sciences, Coburg University of Applied Sciences and Arts) Title of the dissertation First name and surname Complete reprint of the dissertation approved by the doctoral center "Sustainable and Intelligent Systems" for the award of the doctoral degree "Dr.-lng.". Chair of the examination committee: Dissertation examiners: 1. 2. 3. Dissertation supervisors: 1. 2. The dissertation was submitted to the doctoral center on _____ and was accepted

Appendix 3 Certificate

(Sample)

LOGO THAB LOGO THWS LOGO HSCO

DOCTORATE

THE TECHNICAL UNIVERSITY OF APPLIED SCIENCES WÜRZBURG-SCHWEINFURT

DIE TECHNISCHE HOCHSCHULE WÜRZBURG-SCHWEINFURT

ON «ABSDat»,

MS / MR

< FIRST NAME(S)>< SURNAME>

BORN IN «GEBORT» ON «GebDatum»

HAS SUCCESSFULLY COMPLETED THE DOCTORAL EXAMINATION AT THE

DOCTORAL CENTER

SUSTAINABLE AND INTELLIGENT SYSTEMS

COOPERATIVE DOCTORAL CENTER OF THE TECHNICAL UNIVERSITY OF APPLIED SCIENCES WÜRZBURG-SCHWEINFURT, ASCHAFFENBURG UNIVERSITY OF APPLIED SCIENCES, AND COBURG UNIVERSITY OF APPLIED SCIENCES AND ARTS

WITH

<TITLE> <FIRST NAME/S> <SURNAME> of <HIGHER EDUCATION INSTITUTION> ACTING AS PRIMARY SUPERVISOR

THE ACADEMIC DEGREE

DOKTOR DER INGENIEURWISSENSCHAFTEN

"Dr.- Ing."

IS THUS AWARDED. <PLACE>, ON <DD.MM.YYYY>

THE PRESIDENT DIRECTOR OF THE DOCTORAL CENTER

SEAL

(THWS)

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