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Kindly note that the version in the German language shall be the only legally binding version. The translation into English is to be understood as a service provided for your help.

Study and Examination Regulations of Karlsruhe Institute of Technology (KIT) Relating to the Master's Program "Optics & Photonics"

dated August 04, 2015

Pursuant to Article 10, par. 2, clause 5 and Article 20 of the Act on Karlsruhe Institute of Technology (KIT Act – KITG) of July 14, 2009 (bulletin, p. 317 f.), last amended by Article 5 of the Third Act on the Modification of University Regulations (3. Hochschulrechtsänderungsgesetz – 3. HRÄG) of April 01, 2014 (bulletin, pp. 99, 167), and Article 8, par. 5 of the Law of Baden-Württemberg on Universities and Colleges (Landeshochschulgesetz – LHG) of January 01, 2005 (bulletin, p. 1 f.), last amended by Article 1 of the Third Act on the Modification of University Regulations (3. HRÄG) of April 01, 2014 (bulletin, p. 99 ff.), the senate of KIT adopted the following Study and Examination Regulations Relating to the Master's Program "Optics & Photonics" on July 20, 2015.

The President expressed his approval on August 04, 2015 according to Article 20, par. 2 KITG and Article 32, par. 3, clause 1 LHG.

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Preamble

Within the framework of the implementation of the Bologna Process to establish a European university area, KIT has defined the objective that studies at KIT are to be completed by the Master's degree. Hence, KIT considers the consecutive bachelor's and master's programs offered by KIT to form an overall concept with a consecutive curriculum.

I. General Provisions

Article 1 - Scope

The present master's examination regulations shall apply to the course of studies, examinations, and graduation in the master's program of Optics & Photonics at KIT. This program is offered jointly by the KIT Department of Chemistry and Biosciences, the KIT Department of Electrical Engineering and Information Technology, the KIT Department of Mechanical Engineering, and the KIT Department of Physics.

Article 2 – Program Objective, Academic Degree

(1) During the consecutive master's program, scientific qualifications acquired in the course of the bachelor's program shall be further enhanced, increased, extended, or complemented. By means of the program, students are to acquire the capability of independently applying scientific findings and methods and evaluating their significance and applicability to the solution of complex scientific and social problems.

(2) Upon successful completion of the master's examination, the academic degree of "Master of Science (M. Sc.)" in Optics & Photonics shall be conferred.

Article 3 - Regular Period of Studies, Organization of Studies, Credits

(1) The regular period of studies shall be four semesters.

(2) The program offered is divided into subjects and subjects are divided into modules that consist of courses of studies. The subjects and their scopes are outlined in Article 19. Details are given in the module manual.

(3) The workload envisaged for passing studies courses and modules is expressed in credits. The criteria for assigning credits correspond to the European Credit Transfer System (ECTS). One credit corresponds to a workload of about 30 hours. As a rule, the credits shall be distributed equally over the semesters.

(4) The study and examination achievements required for the successful completion of the studies are measured in credits and amount to a total of 120 credits.

(5) The courses of studies are offered in the English language.

Article 4 - Module Examinations, Study and Examination Achievements

(1) The master's examination shall consist of module examinations. Module examinations consist of one or several controls of success.

Controls of success consist of study and examination achievements.

(2) Examination achievements include:

1. Written examinations,
2. Oral examinations, or
3. Examinations of another type.

(3) Study achievements are written, oral or practical achievements that are usually made by students parallel to the studies courses. The master's examination may not be completed by a study achievement.

(4) At least 70% of the module examinations shall be marked.

(5) In case of complementary contents, module examinations of several modules may be replaced by one module-overlapping examination (par. 2, Nos. 1 to 3).

Article 5 - Registration for and Admission to Module Examinations and Studies Courses

(1) To participate in module examinations, the students shall register online for the corresponding controls of success on the students portal (Studierendenportal). In exceptional cases, registration can be made in writing with the Students Service (Studierendenservice) or another institution authorized by the Students Service. The examiners may specify registration deadlines for the controls of success. The procedure for the registration of the master's thesis is outlined in the module manual.

(2) If the students are free to choose, they shall submit a binding declaration on the selection of the module and its allocation to a subject together with the registration for the examination in order to be admitted to the examination. At the request of the student to the examination board, selection or allocation can be changed later on.

(3) Students shall be admitted to a control of success, if

1. they have registered for the master's program of Optics & Photonics at KIT; students on leave of absence shall be admitted to examinations exclusively; and
2. they furnish evidence of meeting the requirements outlined in the module manual for admission to a control of success, and
3. they furnish evidence of not having lost their right to pass examinations in the master's program of Optics and Photonics, and
4. they meet the requirement outlined in Art. 19 a.

(4) According to Art. 30, par. 5 LHG, admission to individual compulsory courses can be restricted. The examiner shall decide on the selection of students, who registered in due time before the date fixed by the examiner taking into account the study progress of these students and taking into account Art. 13, par. 1, clauses 1 and 2, if the surplus of students registered cannot be reduced by other or additional courses. In case of the same study progress, further criteria shall be specified by the KIT departments. The students shall be informed in due time about the result.

(5) Admission shall be refused, if the requirements outlined in paragraphs 3 and 4 are not met. Admission may be refused, if the respective control of success was passed in an undergraduate bachelor's program of KIT already, which was required for admission to this master's program. This shall not apply to so-called Mastervorzugsleistungen (achievements made during the bachelor's program, but credited in the consecutive master's program only). They require express approval of admission according to clause 1.

Article 6 - Execution of Controls of Success

(1) Controls of success shall be performed parallel to the studies, as a rule during the teaching of the syllabus of the individual modules or shortly afterwards.

(2) The type of control of success (Art. 4, par. 2, Nos. 1 – 3, par. 3) shall be specified by the examiner of the respective study course depending on the contents of the course and learning outcomes of the module. The type of the control of success, its frequency, sequence, weighing, and the determination of the module grade, if applicable, shall be announced in the module manual at least six weeks prior to the start of the semester. The examiner and student may agree on a later change of the type of examination taking into account Art. 4, par. 4 and the examination language. When organizing examinations, the interests of students with handicaps or chronic illnesses shall be taken into account according to Article 13, par. 1. Article 13, par. 1, clauses 3 and 4 shall apply accordingly.

(3) In case of an unreasonably high examination expenditure, an examination to be passed in writing may also be passed orally or an oral examination may also be passed in writing. This modification shall be announced at least six weeks prior to the examination.

(4) Controls of success shall be carried out in the English language. Article 6, par. 2 shall apply accordingly.

(5) *Written examinations* (Art. 4, par. 2, No. 1) shall usually be evaluated by one examiner according to Art. 18, par. 2 or 3. If an evaluation is made by several examiners, the grade results from the arithmetic mean of the individual marks. If the

arithmetic mean does not correspond to any of the grade levels defined in Art. 7, par. 2, clause 2, it is to be rounded up or down to the nearest grade level. In case the distance to the next upper or lower grade level is the same, the grade is to be rounded up to the next better grade level. The evaluation procedure shall not exceed six weeks. Written examinations shall last at least 60 and not more than 300 minutes.

(6) *Oral examinations* (Art. 4, par. 2, No. 2) shall be performed and evaluated as individual or group examinations by several examiners (examining board) or by one examiner in the presence of an associate. Prior to determining the grade, the examiner shall consult the other examiners of the examining board. Oral examinations shall usually last at least 15 minutes and not more than 60 minutes per candidate.

Major details and results of the *oral examination* shall be recorded in the minutes. The result of the examination shall be announced to the students after the oral examination.

Students wishing to undergo the same examination in a later semester shall be admitted to oral examinations as an audience depending on spatial conditions and provided that the student to be examined has agreed. This admission shall not include the consultation of examiners and announcement of the examination results.

(7) For *examinations of another type* (Article 4, par. 2, No. 3), appropriate deadlines and submission dates shall be specified. It is to be ensured by the way of formulating the task and by adequate documentation that the examination result can be credited to the student. Major details and results of such a control of success shall be recorded in the minutes.

During *oral examinations of another type*, an associate shall be present in addition to the examiner, who shall also sign the minutes together with the examiner.

Theses or papers to be written within the framework of an *examination of another type* shall be provided with the following declaration: "Ich versichere wahrheitsgemäß, die Arbeit selbstständig angefertigt, alle benutzten Hilfsmittel

vollständig und genau angegeben und alles kenntlich gemacht zu haben, was aus Arbeiten anderer unverändert oder mit Abänderungen entnommen wurde.” (I herewith declare that the present thesis/paper is original work written by me alone and that I have indicated completely and precisely all aids used as well as all citations, whether changed or unchanged, of other theses and publications). This declaration shall also be made in English in an equivalent form. If the thesis/paper does not contain both declarations, it shall not be accepted. Major details and results of such a control of success shall be recorded in the minutes.

Article 6a – Controls of Success by a Multiple Choice Procedure

It is outlined in the module manual whether and to what an extent controls of success may be made by a *multiple choice test*.

Article 6b – Computer-based Controls of Success

(1) Controls of success may be made with the help of computers. The answer or solution of the student is transmitted electronically and, if possible, evaluated automatically. The examination contents are set up by an examiner.

(2) Prior to the computer-based control of success, the examiner shall ensure that the electronic data can be identified unambiguously and allocated unmistakably and permanently to the students. Problem-free execution of a computer-based control of success shall be ensured by appropriate technical support. In particular, the control of success is to be performed in the presence of a competent person. All examination exercises shall be available for the examination during the complete examination duration.

(3) As for the rest, Articles 6 and 6a shall apply to the execution of computer-based controls of success.

Article 7 - Evaluation of Study Achievements and Examinations

(1) The result of an examination shall be specified by the examiners in the form of a grade.

(2) The following grades shall be used:

“sehr gut” (very good)	for an outstanding performance;
“gut” (good)	for a performance that is far above the average;
“befriedigend” (satisfactory)	for a performance meeting average requirements;
“ausreichend” (sufficient)	for a performance that is still acceptable in spite of its deficiencies;
“nicht ausreichend” (failed)	for a performance that is no longer acceptable due to major deficiencies.

For the differentiated evaluation of individual examinations, the following grades may be applied exclusively:

1.0, 1.3	sehr gut (very good),
1.7, 2.0, 2.3	gut (good),
2.7, 3.0, 3.3	befriedigend (satisfactory),
3.7, 4.0	ausreichend (sufficient),
5.0	nicht ausreichend (failed).

(3) Study achievements shall be rated “bestanden” (passed) or “nicht bestanden” (failed).

(4) When determining the weighed means of module grades, subject grades, and total grade, only the first decimal place shall be considered. All following decimal places shall be deleted without rounding.

(5) Every module and every control of success may only be credited once in the same program.

(6) An examination is passed, if the grade is at least “ausreichend” (4.0, sufficient).

(7) A module examination is passed, if all controls of success required have been passed. The module examination procedure and determination of the module grade shall be outlined in the module manual. If the module manual does not contain any regulation regarding the determination of the module grade, the latter shall be calculated from the grade average weighed depending on the credits of the partial modules. The differentiated grades (par. 2) shall be used as initial data for the calculation of the module grades.

(8) The results of the controls of success as well as the credits acquired shall be administrated by the Studierendenservice (Students Service) of KIT.

(9) The grades of the modules of a subject shall be considered proportionally to the credits assigned to the modules when calculating the subject grade.

(10) The total grade of the master's examination, the subject grades, and module grades are:

Better than or equal to 1.5	=	“sehr gut” (very good),
from 1.6 to 2.5	=	“gut” (good),
from 2.6 to 3.5	=	“befriedigend” (satisfactory),
from 3.6 to 4.0	=	“ausreichend” (sufficient).

Article 8 – Repetition of Controls of Success, Final Failure

(1) Students may repeat once a written examination that has not been passed (Art. 4, par. 2, No. 1). In case a repeated written examination is evaluated with a grade of “nicht ausreichend” (5.0, failed), an oral re-examination shall take place soon after the date of the failed examination. In this case, the grade of this examination may not be better than “ausreichend” (4.0, sufficient).

(2) Students may repeat once an oral examination that has not been passed (Art. 4, par. 2, No. 2).

(3) Repeated examinations according to paragraphs 1 and 2 shall correspond to the first examination in terms of contents, scope, and type (oral or written). At request, exceptions may be approved of by the responsible examination board.

(4) Examinations of another type (Art. 4, par. 2, No. 3) may be repeated once.

(5) Study achievements may be repeated several times.

(6) The examination is finally failed, if the oral re-examination according to par. 1 is evaluated with “nicht ausreichend” (5.0, failed). In addition, the examination is finally failed, if the oral examination in the sense of par. 2 or the examination of another type according to par. 4 was evaluated twice with the grade of “nicht bestanden” (failed).

(7) The module is finally failed, if an examination required for passing finally is not passed.

(8) A second repetition of the same examination according to Article 4, par. 2 shall be possible in exceptional cases only upon application by the student (“Antrag auf Zweitwiederholung”). This application for a second repetition of an examination shall be submitted in writing by the student to the examination board not later than two months upon the announcement of the grade.

The examination board shall decide on the first application of the student for a second repetition, if the application is approved of. If the examination board dismisses the application, a member of the Presidential Committee shall decide. Upon comment of the examination board, a member of the Presidential Committee shall decide on further applications for a second repetition. If the application is approved of, the second repetition shall take place on the next but one examination date at the latest. Paragraph 1, clauses 2 and 3 shall apply accordingly.

(9) Repetition of a passed examination shall not be permitted.

(10) In case a master's thesis has been granted the grade "nicht ausreichend" (5.0, failed), it can be repeated once. A second repetition of the master's thesis shall be excluded.

Article 9 – Loss of the Entitlement to an Examination

In case a student finally fails to pass a study achievement or examination required according to the present study and examination regulations or if a re-examination according to Article 8, par. 6 is not passed in due time or if the master's examination, including potential repetitions, is not passed completely until the end of the examination period of the 7th semester, the entitlement to take an examination in the program of Optics and Photonics shall expire, unless the student is not responsible for exceeding the deadline. The decision on extending the deadline and on exceptions to the deadline regulation shall be made by the examination board taking into account the activities listed in Article 32, par. 6, LHG upon application by the student. The application shall be made in writing usually up to six weeks prior to the expiry of the deadline.

Article 10 – Deregistration, Absence, Withdrawal

(1) Students can revoke their registration for *written examinations* until distribution of the examination tasks without having to indicate any reasons (deregistration). Deregistration can be made online on the students portal (Studierendenportal) until 12.00 p.m. on the day before the examination or in case of justified exceptions with the Students Service (Studierendenservice) during office hours. If the deregistration is announced to the examiner, the latter shall take care of the deregistration being booked in the campus management system.

(2) In case of *oral examinations*, deregistration shall be declared to the examiner three working days prior to the date of examination at the latest. Withdrawal from an oral examination less than three working days prior to the date of examination shall only be permitted under the conditions of par. 5. Withdrawal from oral re-examinations in the sense of Article 9, par. 1 shall be possible under the conditions outlined in par. 5 only.

(3) Deregistration from *examinations of another type* as well as from *study achievements* is described in the module manual.

(4) A control of success shall be deemed to have been “nicht ausreichend” (5.0, failed), if the students fail to be present at the examination without a good reason or if they withdraw from the control of success after its start without a good reason. The same shall apply, if the master’s thesis has not been submitted within the period envisaged, unless the student is not responsible for having exceeded the deadline.

(5) The reason given for withdrawal after the start of the control of success or absence shall be notified immediately, credibly, and in writing to the examination board. In case of an illness of the student or of a child maintained by the student alone or of a relative in need of care, submission of a medical certificate may be required.

Article 11 – Deception, Breach of Regulations

(1) In case students try to influence the result of their control of success by deception or the use of impermissible aids, this control of success shall be deemed to have been “nicht ausreichend” (failed, 5.0).

(2) Students disturbing the proper execution of a control of success may be excluded from the continuation of the control of success by the examiner or the supervisor. In this case, this control of success shall be deemed to have been “nicht ausreichend” (failed, 5.0). In serious cases, the examination board may exclude these students from further controls of success.

(3) Details relating to honesty during examinations and traineeships are outlined in the General Statutes of KIT, as amended.

Article 12 - Maternity Protection, Parental Leave, Assumption of Family Obligations

(1) At the student's request, the maternity protection periods as defined by the Act for the Protection of the Working Mother (Mutterschutzgesetz - MuSchG), as amended, shall be considered accordingly. The required evidence shall be enclosed with this request. The maternity protection periods suspend any deadline according to the present examination regulations. The duration of maternity protection shall not be included in the deadline given.

(2) At request, the deadlines of parental leave shall be considered according to the valid legislation (Bundeselterngeld- und Elternzeitgesetz - BEGG). Four weeks prior to the desired start of the parental leave period at the latest, the student shall inform the examination board in writing about the desired time of start of parental leave. The required evidence shall be enclosed. The examination board shall then check whether the legal prerequisites would justify an employee's claim for parental leave and inform the student immediately of the result and the new times of examination. The period of work on the master's thesis may not be interrupted by parental leave. In this case, the thesis shall be deemed to have not been assigned. Upon expiry of the parental leave period, the student shall receive a new subject that is to be dealt with within the period specified in Article 14.

(3) At request, the examination board shall decide on the flexible handling of examination deadlines according to the provisions of the Law of Baden-Württemberg on Universities and Colleges, if students have to assume family obligations. Paragraph 2, clauses 4 to 6 shall apply accordingly.

Article 13 – Students with a Handicap or Chronic Illness

(1) When executing and organizing studies and examinations, the interests of students with handicaps or chronic illnesses shall be taken into account. In particular, students with a handicap or chronic illness shall be granted preferred access to courses with a limited number of participants and the order of passing certain courses shall be adapted to their needs. According to the Federal Equality Act (Bundesgleichstellungsgesetz, BGG) and Volume 9 of the Social Insurance Code

(Sozialgesetzbuch 9. Buch, SGB IX), students are handicapped, if their bodily function, mental capacity, or emotional health with high probability deviates from the condition typical of a person of that age for a period longer than six months and their participation in social life is therefore impaired. At the request of the student, the examination board shall decide on whether conditions according to clauses 2 and 3 apply. The student shall furnish the corresponding evidence.

(2) In case students furnish evidence of a handicap or chronic illness and if, as a result, they are not able to pass controls of success completely or partly in the time or form required, the examination board may permit them to pass the controls of success within another period of time or in another form. In particular, handicapped students shall be permitted to use the required aids.

(3) In case students furnish evidence of a handicap or a chronic illness and if, as a result, they are not able to regularly attend the courses or to reach the study and examination achievements required according to Article 19, the examination board may permit, at their request, to have them pass individual study and examination achievements upon expiry of the deadlines envisaged in the present Study and Examination Regulations.

Article 14 - Master's Thesis Module

(1) Students who have successfully passed all module examinations and internships required except for two module examinations at the maximum shall be accepted for the master's thesis module. Prior to the registration of the master's thesis module, the optics and photonics labs, the seminar course, and the internship have to be passed. The application for admission to the master's thesis shall be submitted three months after the last module examination at the latest. At request of the student, the examination board shall decide on exceptions.

(1a) 30 credits shall be assigned to the master's thesis module. It shall consist of the master's thesis and a presentation. The presentation shall be made within six months upon registration for the master's thesis.

(2) The master's thesis can be assigned by university teachers and executive scientists according to Article 14, par. 3, clause 1 KITG. In addition, the examination board can authorize further examiners to assign the subject according to Article 17, pars. 2 to 4. The students shall be given the possibility to propose the subject. In case the master's thesis shall be written outside of the four KIT departments involved according to Article 1, clause 2, the approval of the examination board shall be required. The master's thesis may also be permitted in the form of group work, provided that the contributions of the individual students that are to be evaluated as examination achievements can be distinguished clearly based on objective criteria and the requirements outlined in par. 4 are met. At the student's request, the chairperson of the examination board, by way of exception, shall take care of the student receiving a subject for the master's thesis within four weeks upon application. In this case, the subject is assigned by the chairperson of the examination board.

(3) The subject, task, and scope of the master's thesis shall be limited by the examiner, such that the master's thesis can be handled with the expenditure outlined in par. 4.

(4) The master's thesis shall demonstrate that the students are able to deal with a problem in the subject area of optics & photonics in an independent manner and within the given period of time using scientific methods. 30 credits shall be assigned to the master's thesis. The maximum duration of work on the thesis shall amount to six months. The subject and task shall be adapted to the scope envisaged. The master's thesis shall be written in the English language.

(5) When submitting the master's thesis, the students shall assure in writing that the thesis is original work by them alone and that they have used no sources and aids other than those indicated and that they have adequately marked all citations either literally or textually and observed the KIT Statutes for Upholding Good Scientific Practice, as amended. If the thesis does not contain this declaration, it shall not be accepted. The declaration may be as follows: "Ich versichere wahrheitsgemäß, die Arbeit selbstständig verfasst, alle benutzten Hilfsmittel vollständig und genau angegeben und alles kenntlich gemacht zu haben, was aus Arbeiten anderer unverändert oder mit Abänderungen entnommen wurde sowie die Satzung des KIT

zur Sicherung guter wissenschaftlicher Praxis in der jeweils gültigen Fassung beachtet zu haben“ (I herewith declare that the present thesis is original work written by me alone, that I have indicated completely and precisely all aids used as well as all citations, whether changed or unchanged, of other theses and publications, and that I have observed the KIT Statutes for Upholding Good Scientific Practice, as amended). This declaration shall also be made in English in an equivalent form. If the declaration is not true, the master's thesis shall be given the grade “nicht ausreichend” (5.0, failed).

(6) The time of assignment of the subject of the master's thesis shall be documented by the assigning examiner and the student as well as in the files of the examination board. The time of submission of the master's thesis shall be documented by the examiner/s with the examination board. The student shall be allowed to return the subject of the master's thesis once only within the first month of the period of work on the thesis. At the justified request of the student, the examination board may extend this time of work on the thesis according to par. 4 by three months at the maximum. If the master's thesis is not submitted in time, it shall be deemed to have been “nicht ausreichend” (5.0, failed), unless the candidate is not responsible for this delay.

(7) The master's thesis shall be evaluated by at least one university teacher or one executive scientist according to Article 14, par. 3, No. 1 KITG and another additional examiner. As a rule, one of the examiners is the person who has assigned the subject according to par. 2. In case of a deviating evaluation of these two persons, the examination board shall decide on the grade of the master's thesis. It may also appoint another reviewer. The evaluation shall be made within a period of eight weeks upon submission of the master's thesis.

Article 14a - Internship

(1) In the course of the master's program, an internship of eight weeks' duration shall be passed. This internship shall be suited to give the students an idea of professional practice in the field of optics & photonics. 12 credits shall be assigned to the internship, inclusive of the final report and presentation.

(2) In their own responsibility, the students shall contact appropriate private or public institutions for passing the internship. The candidate shall be supervised by an examiner according to Art. 17, par. 2 in addition to the external supervisor. As a rule, the internship shall not be completed at KIT and in case of multiple degrees (e.g. under ERASMUS MUNDUS programs), it also shall not be completed at one of the partner institutions. Details are outlined in the module manual.

Article 15 - Additional Achievements

(1) The students shall be free to acquire further credits (additional achievements) in the amount of 30 credits at the maximum in the courses offered by KIT. Articles 3 and 4 of the Examination Regulations shall remain unaffected. These additional achievements shall not be considered when calculating the total and module grades. The credits not considered when determining the module grade shall be included automatically in the transcript of records and marked as additional achievements. At the student's request, additional achievements shall be included in the master's certificate and marked as additional achievements. Additional achievements shall be listed with the grades according to Article 7.

(2) When signing up for an examination in a module, the students shall declare it as an additional achievement already. At the students' request, classification of the module can be changed later on.

Article 15a – Key Competencies

Apart from the scientific modules, key competencies modules of at least six credits shall be part of the KIT's master's program of Optics & Photonics. Key competencies may be a module of their own or part of another scientific module.

Article 16 - Examination Board

(1) For the master's program of Optics & Photonics, an examination board shall be formed. It shall consist of six members entitled to vote: Four university teachers / executive scientists according to Article 14, par. 3, No. 1 KITG / assistant professors

of the four KIT departments according to Art. 1, clause 2, two representatives of the academic staff according to Art. 52 LHG / scientific staff members according to Art. 14, par. 3, No. 2 KITG, and one representative of the students with an advisory vote. The term of office of the non-student members shall be two years, the term of office of the student member shall be one year. Every KIT department involved according to Art. 1, clause 2 shall be represented by a member entitled to vote.

(2) The chairperson, his/her deputy, the other members of the examination board, and their deputies shall be appointed by the respective KIT department councils, the academic staff members according to Art. 52 LHG, the members of the group of scientists according to Art. 14, par. 3, No. 2 KITG, and the representative of the students according to the proposal made by the members of the respective group. Reappointment shall be possible. The chairperson and his/her deputy shall be university teachers or executive scientists according to Art. 14, par. 3, No. 1 KITG. The chair shall alternate among the KIT departments every two years. The chairperson of the examination board shall be responsible for current transactions and supported by the respective examination office.

(3) The examination board shall be responsible for the observation and implementation of the present Study and Examination Regulations in the practice of the departments involved according to Art. 1, clause 2. It shall decide on matters of the examinations and on the recognition of study periods and study and examination achievements and make the decision according to Art. 18, par. 1, clause 1. It shall regularly report to the KIT departments involved according to Art. 1, clause 2 about the development of examination and study periods as well as about the times of work on the master's theses and the distribution of module and total grades. It shall also propose reforms of the Study and Examination Regulations and module descriptions. The examination board shall decide with the majority of votes. In the event of a tie, the chairperson of the examination board shall have the casting vote.

(4) The examination board may assign the execution of its tasks in all normal cases to the chairperson of the examination board. In urgent matters, the execution of which cannot wait until the next meeting of the examination board, the chairperson of the examination board shall decide.

(5) The members of the examination board shall have the right to participate in examinations. The members of the examination board, the examiners, and the associates shall be under the obligation of discretion. If they do not work in the public service sector, they shall be obliged to secrecy by the chairperson of the examination board.

(6) In matters of the examination board, which are related to an examination to be passed at another KIT department, a competent person authorized to examine and to be appointed by the respective KIT department shall be consulted at the request of a member of the examination board.

(7) The student shall be informed in writing about incriminating decisions by the examination board. These decisions shall be justified and provided with an information on legal remedies available. Prior to the decision, the student shall be given the opportunity to be heard. Objections against decisions made by the examination board shall be addressed to the Presidential Committee of KIT in writing or for record within one month upon receipt of the decision.

Article 17 - Examiners and Associates

(1) The examination board shall appoint the examiners. It may delegate appointment to its chairperson.

(2) Examiners shall be university teachers and executive scientists according to Art. 14, par. 3, No. 1 KITG, members of the respective KIT departments having post-doctoral lecture qualification as well as academic staff members according to Art. 52 LHG working at the respective KIT departments, who are authorized to examine students. In addition, scientific staff members according to Art. 14, par. 3, No. 2 KITG can be authorized to examine students. For appointment, persons shall have the scientific qualification corresponding to the examination subject at least.

(3) If courses are offered by persons other than those mentioned under par. 2, these shall be appointed examiners, if one of the KIT departments involved according to

Art. 1, cl. 2 has granted them the authorization to examine and they can furnish evidence of the qualification required according to par. 2, cl. 2.

(4) In case master's theses are assigned or supervised by persons other than those mentioned in par. 2, these persons may be appointed examiners by way of exception, if one of the KIT departments involved according to Art. 1, cl. 2 has granted them the authorization to examine and they can furnish evidence of the qualification needed according to par. 2, cl. 2.

(5) Associates shall be appointed by the examiners. Only persons having acquired an academic degree in a master's program of the KIT departments involved according to Art. 1, cl. 2 or an equivalent academic degree may be appointed associate.

Article 18 - Recognition of Study and Examination Achievements, Study Periods

(1) Study and examination achievements made as well as study periods passed in study programs at state or state-recognized universities and cooperative state universities of the Federal Republic of Germany or at foreign state or state-recognized universities shall be recognized at the request of the students, if the competencies acquired do not differ considerably from the achievements or degrees to be replaced. No schematic comparison, but an overall analysis shall be made. As regards the scope of a study or examination achievement to be recognized, the principles of the ECTS shall be applied.

(2) Students shall submit the documents required for recognition. Students newly enrolled in the master's program of Optics & Photonics shall submit the application, together with the documents required for recognition, within one semester upon enrollment. In case of documents that are not available in the German or English language, an officially certified translation may be requested. The examination board shall bear the burden of proving that the application does not meet the recognition requirements.

(3) If achievements made not at the KIT are recognized, they shall be indicated to be “anerkannt” (recognized) in the transcript. If grades exist, the grades shall be taken over in case of comparable grade scales and considered when calculating the module grades and total grade. In case of incomparable grade systems, the grades can be converted. If no grades exist, the note “bestanden” (passed) shall be made.

(4) When recognizing study and examination achievements made outside of the Federal Republic of Germany, the equivalence agreements adopted by the Conference of Ministers of Education and the German Rectors’ Conference as well as agreements concluded within the framework of university partnerships shall be considered.

(5) Knowledge and skills acquired outside of the university system shall be recognized, if they are equivalent in terms of contents and level to the study and examination achievements to be replaced and the institution, where the knowledge and skills were acquired, has a standardized quality assurance system. Recognition may be refused partly, if more than 50% of the university studies are to be replaced.

(6) The examination board shall be responsible for recognition and crediting. To determine whether a considerable difference in the sense of par. 1 exists, the responsible subject representatives shall be heard. Depending on the type and scope of study and examination achievements to be recognized, the examination board shall decide on admission to a higher semester.

II. Master’s Examination

Article 19 - Scope and Type of the Master’s Examination

(1) The master’s examination shall consist of the module examinations according to paragraphs 2 and 3, the master’s thesis module (Art. 14), and the internship (Art. 14a).

(2) Module examinations shall be passed in the following mandatory subjects:

1. Engineering Optics & Photonics: Modules of 8 credits;
2. Physical Optics & Photonics: Modules of 8 credits;

3. Advanced Optics & Photonics – Theory and Materials: Modules of 8 credits;
4. Advanced Optics & Photonics – Methods and Components: Modules of 10 credits;
5. Adjustment courses: Modules of 8 credits;
6. Optics & Photonics lab: Modules of 10 credits;
7. Seminar course (research topics in Optics & Photonics): Modules of 4 credits;
8. Key qualifications of at least 6 credits according to Art. 15a.

The modules to be selected and their allocation to the subjects are outlined in the module manual.

(3) In the area of specializations, module examinations of 16 credits shall be passed in one of the following subjects:

- Specialization – Photonic Materials and Devices;
- Specialization – Advanced Spectroscopy;
- Specialization – Biomedical Photonics;
- Specialization – Optical Systems;
- Specialization – Solar Energy.

The modules that can be selected in these subjects are outlined in the module manual.

Article 20 - Passing of the Master's Examination, Calculation of the Total Grade

(1) The master's examination shall be passed, if all module examinations mentioned in Art. 19 were evaluated with the grade "ausreichend" (sufficient) at least and the corresponding study achievements were made.

(2) The total grade of the master's examination shall be the mean of the grades of subjects according to Art. 19, par. 2, Nos. 1 – 4 and Art. 19, par. 3 weighed with credits and of the grade of the master's thesis module.

(3) In case students have completed the master's thesis with the grade 1.0 and the master's examination with an average of better than 1.3, the predicate "mit Auszeichnung" (with distinction) shall be granted.

Article 21 – Master’s Transcript, Master’s Certificate, Diploma Supplement, and Transcript of Records

(1) Upon evaluation of the last examination, a master’s certificate and a transcript shall be issued about the master’s examination. The master’s certificate and transcript shall be issued not later than three months upon the last examination. The master’s certificate and transcript shall be issued in the German and English languages. The master’s certificate and transcript shall bear the date of the successful passing of the last examination. They shall be handed over to the students together. The master’s certificate shall document the conferral of the academic degree of master. The master’s certificate shall be signed by the President and the dean of the KIT department, where the master’s thesis was written. This certificate shall be provided with the seal of KIT.

(2) The transcript shall list the subject and module grades, the credits assigned to the modules and subjects, and the total grade. If a differentiated evaluation of individual examination achievements was made according to Art. 7, par. 2, cl. 2, the corresponding decimal grade shall also be indicated on the transcript. Art. 7, par. 4 shall remain unaffected. The transcript shall be signed by the KIT dean of the KIT department, where the master’s thesis was written, and by the chairperson of the examination board.

(3) In addition to the transcript, the students shall be given a diploma supplement in the German and English languages, which corresponds to the requirements of the applicable ECTS Users Guide, and a transcript of records in the German and English languages.

(4) The transcript of records shall list all study and examination achievements of the student in a structured form. This shall include all subjects, subject grades, and the assigned credits, the modules assigned to the subject together with the module grades and the assigned credits as well as controls of success assigned to the modules together with the grades and assigned credits. Par. 2, cl. 2 shall apply accordingly. The transcript of records shall clearly reflect the assignment of courses

to the individual modules. Recognized study and examination achievements shall be included in the transcript of records. All additional achievements shall be listed in the transcript of records.

(5) The master's certificate, master's transcript, and the diploma supplement, including the transcript of records, shall be issued by the Students Service (Studierendenservice) of KIT.

III. Final Provisions

Article 22 - Certificate of Examination Achievements

(1) In case students have ultimately failed in the master's examination, they shall be given at request and against submission of the exmatriculation certificate a written certificate about the study and examination achievements made and the respective grades indicating that the examination has not been passed. The same shall apply when the entitlement to an examination has expired.

Article 23 - Deprivation of the Master's Degree

(1) If students have been guilty of deception during an examination and if this fact becomes known upon the hand-over of the transcript only, the grades for the module examinations, during which the students were guilty of deception, may be corrected. This module examination may be declared to have been "nicht ausreichend" (5.0, failed) and the master's examination to have been "nicht bestanden" (failed).

(2) If the conditions for admission to an examination were not fulfilled without the student wanting to deceive and if this fact becomes known upon the hand-over of the transcript only, this default shall be remedied by the passing of the examination. If the student intentionally and wrongly obtained admission to the examination, the module examination may be declared to have been "nicht ausreichend" (5.0, failed) and the master's examination to have been "nicht bestanden" (failed).

(3) Prior to a decision of the examination board, the student shall be given the opportunity to be heard.

(4) The incorrect transcript shall be confiscated and, if applicable, a new transcript shall be issued. Together with the incorrect transcript, the master's certificate shall be confiscated, if the master's examination was declared to have been "nicht bestanden" (failed) due to a deception.

(5) A decision pursuant to par. 1 and par. 2, cl. 2 shall be excluded after a period of five years upon the date of issue of the transcript.

(6) Deprivation of the academic degree shall be subject to Art. 36, par. 7 LHG.

Article 24 - Inspection of Examination Files

(1) Upon completion of the master's examination, the students shall be granted the right to inspect their master's thesis, the related opinions, and minutes of the examination within one year at request.

(2) For inspection of written module examinations, written module partial examinations, and minutes of examinations, a deadline of one month upon announcement of the examination result shall apply.

(3) The examiner shall determine the place and time of inspection.

(4) Examination documents shall be kept for at least five years.

Article 25 - Entry into Force, Transition Regulations

(1) The present Study and Examination Regulations shall enter into force on October 01, 2015.

(2) At the same time, the Study and Examination Regulations of KIT about the Master's Program of Optics & Photonics of September 27, 2012 (official

announcement of KIT No. 52 of September 27, 2012), last amended by the statutes of March 27, 2014 (official announcement of KIT No. 19 of March 28, 2014) shall cease to be in force.

(3) Students, who have started their studies at Karlsruhe Institute of Technology (KIT) based on the Study and Examination Regulations of Karlsruhe Institute of Technology (KIT) about the Master's Program of Optics & Photonics of September 27, 2012 (official announcement of Karlsruhe Institute of Technology (KIT) No. 52 of September 27, 2012), last amended by the statutes of March 27, 2014 (official announcement of KIT No. 19 of March 28, 2014), may apply for examination according to those regulations on September 30, 2018 for the last time.

(4) Students, who have started their studies at KIT based on the Study and Examination Regulations about the Master's Program of Optics & Photonics of September 27, 2012 (official announcement of KIT No. 52 of September 27, 2012), last amended by the statutes of March 27, 2014 (official announcement of KIT No. 19 of March 28, 2014), may continue their studies according to those study and examination regulations at request.

Karlsruhe, August 04, 2015

Professor Dr.-Ing. Holger Hanselka
(President)