UNIVERSITÀ DI TRENTO

REGULATIONS OF THE PHD PROGRAMME IN CIVIL, ENVIRONMENTAL AND MECHANICAL ENGINEERING

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INTERNAL REGULATIONS OF THE PHD PROGRAMME IN CIVIL, ENVIRONMENTAL AND MECHANICAL ENGINEERING

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INTERNAL REGULATIONS OF THE PHD PROGRAMME IN CIVIL, ENVIRONMENTAL AND MECHANICAL ENGINEERING

Art. 1 – Subject of the regulations

1. In accordance with current legislation and pursuant to Art. 8, paragraph 2 of the University Regulations governing PhD Programmes issued by Rectoral Decree no. 250 of 11 March 2022 (hereinafter referred to as the "University Regulations"), to which full reference is made, these Internal Regulations govern the management and operation of the PhD Programme in Civil, Environmental and Mechanical Engineering (hereinafter also referred to as the "PhD Programme").

Art. 2 – Establishment of the PhD Programme

1. The PhD Programme in Civil, Environmental and Mechanical Engineering is established at the Department of Civil, Environmental and Mechanical Engineering (hereinafter "DICAM") of the University of Trento.

Art. 3 – Objectives

1. In addition to the general objectives of PhD Programmes established by the University Regulations governing PhD Programmes, the PhD Programme in Civil, Environmental and Mechanical Engineering aims to train highly qualified scientific and professional researchers capable of carrying out original and autonomous research activities in the fields of engineering, architecture, and applied sciences.
2. The educational project of the Programme is interdisciplinary and multidisciplinary, fostering integration across different curricula. The Programme promotes the acquisition of skills to conceptualise, plan, execute, and critically evaluate complex research projects, as well as to develop innovative methods, models, technologies, and solutions.
3. Training includes the development of necessary competencies to communicate and disseminate research results, collaborate within national and international teams, and interact with academic and non-academic entities. It also promotes research ethics and integrity, open science, project management, and the exploitation of research results, including technology transfer and entrepreneurship where relevant.
4. The Programme promotes the internationalisation of training and research, mobility towards universities, research institutions, centers, and enterprises, as well as engagement with the scientific, economic, professional, cultural, and social sectors. The pathway is aimed at training profiles capable of operating in universities, research institutes, companies, public administrations, international organisations, and high-level professional activities.

Art. 4 – Subject areas

1. The macro-areas of reference for the Programme are: 01 Mathematical and computer sciences; 02 Physical sciences; 07 Agricultural and veterinary sciences; 08 Civil engineering and architecture; 09 Industrial and information engineering.

Art. 5 – Curricula structure

1. The PhD Programme is divided into curricula, pursuant to Art. 7 of the University Regulations.
2. The research activities of the Programme are organised into four curricula. Each PhD student's research project falls under one of them:

a) Civil and Environmental Engineering. The curriculum in Civil and Environmental Engineering integrates advanced expertise in the fields of design, monitoring, and management of civil infrastructure, with a specific focus on urban and extra-urban contexts, as well as the safety, resilience, and sustainability of built and environmental systems. Research activities encompass urban dynamics, the efficient use of natural resources, environmental fluid mechanics, granular media mechanics, fluvial morphodynamics, transport processes in heterogeneous and disordered media, surface and subsurface hydrology, atmospheric processes, and ecohydrology. Additionally, the curriculum addresses topics related to the impact of climate change on environmental resources, contaminant dynamics in air, soil, and water bodies, the management and protection of water and atmospheric systems, and the development of control and mitigation systems for risks associated with extreme natural events. The program also covers technologies and processes for wastewater and solid waste treatment, framed within environmental protection, the circular economy, and sustainable resource management. Completing the thematic framework are advanced electromagnetic sensing technologies—including radar systems, ground-penetrating radar, inverse scattering techniques, and electromagnetic imaging—applied to the monitoring, non-invasive diagnostics, and characterization of infrastructure, soils, and environmental systems.

b) Mechanics, Materials, Chemistry and Energy. The curriculum in Mechanics, Materials, Chemistry, and Energy develops advanced expertise in the fields of solid, fluid, and structural mechanics and thermodynamics, as well as electromagnetic technologies and systems, with applications to innovative materials, metamaterials and metastructures, biomaterials and nanomaterials, materials for medicine and aerospace, micro- and macro-scale smart structures, geomaterials, and multiphase media. Research

activities include the study of the mechanical, physical, electromagnetic, and chemical behavior of materials and structural systems through experimental, theoretical, and computational approaches. Additionally, the curriculum addresses topics related to structural control and structural health monitoring, the design and evaluation of systems made from multi-materials, and their response to exceptional natural or anthropogenic events. Particular attention is dedicated to risk mitigation, damage reduction, and the protection of built structures, including historical heritage buildings. The program also encompasses the study of residual stresses, surface treatments of mechanical components and devices, as well as the development of innovative systems, materials, and processes for the conversion, distribution, and storage of energy from renewable sources. Furthermore, an integral part of the curriculum is the study and characterization of static and programmable metasurfaces—including within the context of smart electromagnetic environments—with applications aimed at reducing energy consumption and the environmental impact of wireless communication systems.

c) **Modelling and Simulation**. The curriculum in Modeling and Simulation develops advanced expertise in the mathematical and physical modeling and numerical simulation of complex multiscale systems, with reference to solids, fluids, and electromagnetic systems. Research activities encompass the development and application of theoretical models, computational methods, and simulation techniques for analyzing complex physical phenomena, including those characterized by strong nonlinearities, multiphysics interactions, and multiscale behaviors. The curriculum includes the study of bio-inspired nanostructures, structural and multifunctional metamaterials—also for aerospace applications—atomistic simulation techniques, computational materials science, and computational electromagnetics. Particular attention is devoted to model validation, uncertainty quantification, and the development of advanced numerical algorithms, including finite element methods, boundary element methods, meshless Lagrangian techniques for problems involving large deformations or evolving geometries, finite volume methods for solving hyperbolic conservation laws, and optimization techniques, also integrated with artificial intelligence methods.

d) **Architecture, Planning, and Landscape**. The curriculum in Architecture, Planning, and Landscape develops advanced expertise for the study, analysis, design, and transformation of the built environment and living spaces, with a focus on the relationships between architecture, territory, landscape, infrastructure, communities, and the environment. Research activities encompass the morphological analysis of urban and territorial transformation processes, the historical-critical study of architecture, and

the design of spatial, functional, aesthetic, construction, structural, and infrastructural solutions, while considering the principles of sustainability, resource circularity, technological innovation, and future climate scenarios, as well as executive project management and the control of building processes. Additionally, the curriculum addresses topics related to the conservation and enhancement of architectural heritage, territorial and environmental planning, urban and landscape design, local development, digital representation and modeling, the analysis and evaluation of land-use changes, the integration of ecosystem services into spatial governance tools, life cycle assessment of building materials and products, multi-domain and salutogenic design, and the application of methods and tools for digital management of the building process. The program also includes strategic environmental assessment, multi-criteria analysis for territorial decision-making processes, participatory approaches to design and planning, the promotion of sustainable and resilient communities—also through technological and digital innovation—and design and planning practices in developing countries.

Art. 6 – General characteristics

1. The PhD Programme has a duration of three years.
2. The number of places and scholarships is defined annually in the calls for applications. At least 75% of the total places advertised for each cycle must be covered by scholarships or other financial support, pursuant to Art. 22, paragraph 1 of the University Regulations.
3. Admission to the Programme takes place through a public competitive procedure, upholding equal opportunity, inclusion, and non-discrimination principles.
4. English is the official language of the Programme used for educational activities, assessments, and research presentations.
5. The Programme promotes internationalisation. International PhD students are encouraged to acquire at least basic Italian language proficiency by the end of their second year.

Art. 7 – Governing bodies of the PhD Programme

1. The governing bodies of the PhD Programme are:
   a) The Doctoral Programme Committee (Collegio dei e delle Docenti);
   b) The Director of the PhD Programme (Coordinatore/Coordinatrice);
   c) The Executive Committee (Comitato Esecutivo).

Art. 8 – The PhD Programme Committee

1. The Doctoral Programme Committee (Collegio dei e delle Docenti) is established in accordance with the requirements set out in Art. 4 of Ministerial Decree no. 226/2021 and Arts. 6 and 12 of the University Regulations governing PhD Programmes, taking into account gender balance wherever possible. The Committee consists of at least twelve members belonging to scientific fields consistent with the educational objectives of the PhD Programme, and at least half of its membership comprises full or associate university professors. Non-academic experts from outside universities or public research institutions, possessing high and proven scientific or professional qualifications in fields consistent with the objectives of the Programme, may also participate, up to a maximum of one-third of the total Committee membership.
2. Applications for membership to the Committee must be submitted to the Director of the PhD Programme (Coordinatore/Coordinatrice) accompanied by a detailed curriculum vitae, clearly demonstrating the scientific or professional qualifications required for Committee members for accreditation purposes, as well as any additional quality requirements specified by the Ministry or the University. New memberships are approved by a favorable vote of the majority of present voting members, following verification of the required qualifications and the consistency of the applicant's expertise with the educational and scientific project of the Programme. The composition of the Committee is submitted annually for approval to the Board of the Department of Civil, Environmental and Mechanical Engineering (Consiglio di Dipartimento).
3. Two elected representatives of the PhD students attend the Committee meetings. The representatives participate, with speaking rights but without voting rights, in discussions concerning the general operation of the Programme and the educational pathways. The duration of their mandate and the replacement procedures are governed by Art. 12, paragraph 3 of the University Regulations.

4. Meetings of the Committee are non-public. Upon invitation by the Director of the Programme, individuals whose contribution is deemed useful due to scientific, educational, technical, administrative, or financial support provided to the Programme may attend meetings—or discussions on specific agenda items—without voting rights and without contributing to the quorum.
5. The Committee is convened by the Director of the Programme, who sets the agenda, or upon request by at least one-third of its members. The notice of meeting is transmitted via institutional email at least three days prior to the session. This notice period may be reduced to forty-eight hours in urgent cases. The notice must explicitly state the agenda items and the methods of participation.
6. Meetings may take place in person, with individual remote participation, fully online, or through electronic means, in compliance with Art. 38 of the University General Regulations. If the Committee must deliberate within a set deadline and it is not possible to convene members in person or remotely in a timely manner, the Director of the Programme may convene an electronic session. In such cases, each voting member shall transmit their vote via institutional email within the time window specified in the call, expressed unambiguously as "yes", "no", or "abstain", on one or more specific draft resolutions. The mode of participation shall be recorded in the minutes.
7. For meetings to be valid, the participation of the majority of voting members is required, excluding justified absentees. Any member who finds themselves in a situation of conflict of interest regarding any agenda item must declare it and abstain from the relative discussion and voting.
8. Resolutions are adopted by a favorable vote of the majority of present voting members and become immediately effective, unless the Committee explicitly postpones their execution. In the event of a tie, the Director of the Programme holds the casting vote.
9. The duties of Secretary are performed by a Committee member designated by the Director of the Programme or by a member of the technical-administrative staff assigned to duties related to the management of the Programme. Minutes are drawn up for each meeting, summarizing the interventions, reasoned resolutions, and voting results. Any member may request that their intervention be recorded in full by providing the written text during the meeting.
10. The Committee exercises all functions provided for by the University Regulations. In particular, the Committee:
    a) authorizes PhD students to carry out activities, including paid ones, that are compatible with their doctoral studies within the limits established by Art. 26 of the University Regulations;

b) upon a reasoned request from the PhD student and for proven reasons, may extend the deadline for submitting the application for admission to the thesis review procedure by up to twelve months. Such an extension does not entitle the student to further scholarship disbursements;

c) taking into account available resources, may award scholarship extensions beyond the ordinary duration of the Programme until the final thesis defense for deserving PhD students or to enable the completion of activities of exceptional scientific value;

d) for justified scientific needs, may resolve an extension of the Programme duration of up to twelve months, ensuring the corresponding extension of the scholarship;

e) approves the Quality Assurance documents of the Programme and the related improvement actions, according to the University Guidelines;

f) ensures periodic consultation with internal and external stakeholders to verify the consistency of the educational project, outgoing cultural and professional profiles, and employment outcomes, including through advisory bodies that may be established by its resolution. Such bodies exercise exclusively advisory functions;

g) evaluates, according to University procedures, applications for academic recognition of foreign PhD qualifications relevant to the Programme and decides on their recognition or rejection. For the preliminary evaluation, the Director of the Programme appoints a committee composed of Doctoral Programme Committee members with expertise aligned with the disciplinary field of the degree being evaluated. The committee formulates a reasoned opinion and submits it to the Committee.

11. The Committee may, by express resolution, delegate the exercise of specific functions within its authority to the Executive Committee (Comitato Esecutivo), within the limits permitted by national regulations and University Regulations. The resolution specifies the subject matter and limits of the delegation. The Committee may modify or revoke any delegated powers.
12. Members of the Committee are required to comply with the University's Code of Ethics and Code of Conduct.
13. For matters not explicitly covered by this Article, the provisions of the University Regulations governing PhD Programmes and the University General Regulations shall apply.

Art. 9 – The Director and Deputy-Director of the PhD Programme

1. The Director of the PhD Programme (Coordinatore/Coordinatrice) is responsible for the PhD Programme, coordinates its activities, ensures its regular operation, and represents it in institutional settings.
2. The Director of the Programme is elected by the Doctoral Programme Committee (Collegio dei e delle Docenti) from among the full professors belonging to the Committee who serve full-time at the University of Trento. In the event of justified unavailability, an associate professor possessing the same requirements may be elected.
3. The election is called by the Senior Member (Decano) of the Committee and is conducted by secret ballot. In the first ballot, an absolute majority of eligible voting members is required; from the second ballot onwards, an absolute majority of present voting members is required. Voting by proxy is not permitted. Minutes are drawn up for the electoral operations.
4. The mandate lasts for three years and is renewable once only.
5. The Director of the Programme exercises the functions set out in Art. 13 of the University Regulations governing PhD Programmes and executes the resolutions of the Doctoral Programme Committee. The Director is responsible for the Quality Assurance system of the Programme and coordinates, with the support of the Review Group (Gruppo di Riesame), the preparation of monitoring and review documents required by the University Guidelines.
6. The Director of the Programme appoints a Deputy-Director (Vice-Coordinatore/Vice-Coordinatrice) from among the members of the Doctoral Programme Committee, who substitutes for the Director in case of absence or impediment and, in the event of early termination, until the election of a new Director. The mandate of the Deputy-Director ends with that of the Director of the Programme.
7. In addition to the functions provided for by the University Regulations, the Director of the Programme:
   a) upon request by the supervisor, approves the activation and award of any extension and/or completion scholarships, funded through research funds made available by the supervisor, up to the final thesis defense;
   b) approves requests regarding the activation and award of pre-doctoral scholarships, in compliance with comparative procedures, the criteria established by the Doctoral Programme Committee, and specific University regulations.

8. In performing their duties, the Director of the Programme relies on the support of the Department staff, particularly for managing documentation and minutes, admission and degree completion procedures, international relations, and communications with PhD students and other University offices.

Art. 10 – The Executive Committee

1. The Executive Committee (Comitato Esecutivo) is composed of at least four professors and researchers, one for each curriculum of the PhD Programme, elected by the Doctoral Programme Committee (Collegio dei e delle Docenti) from among its members, usually upon proposal by the Director of the Programme (Coordinatore/Coordinatrice). The Director of the Programme, who chairs the Committee, and the Deputy-Director (Vice-Coordinatore/Vice-Coordinatrice) are members ex officio.
2. The Executive Committee remains in office for the duration of the mandate of the Director of the Programme.
3. For the operation of the Executive Committee, the provisions specified in these Regulations for the Doctoral Programme Committee apply, insofar as they are compatible.
4. The Executive Committee assists the Director of the Programme in carrying out their functions and, for reasons of management efficiency, may exercise the functions indicated below, provided they are delegated by the Doctoral Programme Committee pursuant to Art. 14 of the University Regulations governing PhD Programmes. The Executive Committee reports to the Programme Committee regarding the activities carried out. The Programme Committee retains its guidance and control functions and may, by reasoned resolution, decide on individual matters directly or modify and revoke the delegated powers.
5. The Doctoral Programme Committee may delegate the following functions to the Executive Committee:
   a) assigning a supervisor and one or more co-supervisors to each PhD student, as well as deciding on any requests for replacement;
   b) approving individual study plans, previously agreed upon with the supervisor;
   c) approving the recognition of credits (ECTS/CFU) acquired by PhD students;
   d) preparing the Course Catalog (Manifesto degli Studi), containing the educational activities and the relevant schedule, to be submitted to the Doctoral Programme Committee for approval;
   e) submitting proposals to the Rector regarding full and substitute members of the Admission Committee and members of the Final Examination Committees;

f) identifying, after consulting the supervisors and co-supervisors, at least two external reviewers (referees) outside the University of Trento to evaluate the thesis prior to the public defense, in compliance with Art. 8, paragraph 11 of Ministerial Decree no. 226 of 14 December 2021 and University Regulations;

g) authorizing PhD students to carry out training and research periods abroad exceeding six months;

h) approving the participation of PhD students in internships at public or private entities, Italian or foreign, exceeding six months;

i) deciding on requests for awarding the additional label of "Doctor Europaeus" to the PhD degree;

j) approving requests for suspension of the doctoral path submitted by PhD students, in compliance with Art. 25 of the University Regulations and current legislation;

k) preparing the draft content of the call for applications for admission to the PhD Programme, to be submitted to the Doctoral Programme Committee for final approval;

l) deciding on admission to the subsequent year of the Programme and to the thesis review procedure in cases where the evaluation takes place on a deferred date relative to the ordinary deadlines, without prejudice to the fact that any decision regarding non-admission and exclusion from the Programme remains under the sole authority of the Doctoral Programme Committee;

m) deciding on requests to extend the deadline for submitting the application for admission to the thesis review procedure provided for in Art. 29, paragraph 6 of the University Regulations, when they must be examined on a deferred date relative to ordinary deadlines;

n) authorizing the performance of tutoring and supplementary teaching activities provided for in Art. 26, paragraph 1 of the University Regulations;

o) examining, according to University procedures, applications for academic recognition of foreign PhD qualifications relevant to the Programme and deciding on their recognition or rejection, based on the reasoned opinion of the preliminary evaluation committee appointed by the Director of the Programme.

6. The assignment of functions to the Executive Committee does not preclude the exercise of the same functions by the Doctoral Programme Committee, provided the relevant matter is included in the Committee 's agenda and the Executive Committee has not already adopted a resolution on it.

7. The Director of the Programme may assign specific preliminary, organizational, or administrative tasks required for the operation of the Programme to individual members of the Executive Committee. The

assignment of such tasks does not involve the transfer of decision-making powers belonging to the Executive Committee or the Doctoral Programme Committee.

Art. 11 – The review group

1. The Review Group (Gruppo di Riesame - GdR) supports the Director of the Programme (Coordinatore/Coordinatrice) in the annual monitoring and periodic review activities of the PhD Programme, as well as in the preparation of the relevant documentation, in accordance with the University Guidelines on quality assurance for PhD Programmes.
2. The Review Group is coordinated by the Director of the Programme or by their delegate. Its members include the components of the Executive Committee (Comitato Esecutivo) and at least one representative of the PhD students serving on the Doctoral Programme Committee (Collegio dei e delle Docenti).
3. The Annual Review Report and the Periodic Review Report prepared by the Review Group are discussed and approved by the Doctoral Programme Committee in accordance with the procedures and deadlines established by the University Guidelines. The approved documents are subsequently submitted to the Board of the Department of Civil, Environmental and Mechanical Engineering (Consiglio di Dipartimento) for discussion and acknowledgment.

Art. 12 – Supervisor and co-supervisor

1. Each PhD student is supervised by a supervisor and one or more co-supervisors, identified based on the scientific or professional expertise required by the research project, also from outside the Doctoral Programme Committee (Collegio dei e delle Docenti). At least one among the supervisor and co-supervisors must belong to the academic sector. If all supervisors are external to the Committee, at least one must meet the requirements necessary to join it, as provided for by the University Regulations governing PhD Programmes.
2. At the beginning of the doctoral path and until the formal assignment of the supervisor and co-supervisors, supervision functions are carried out on a provisional basis by the faculty member(s) of the Committee who proposed the research topic associated with the position awarded to the PhD student or who are indicated as scientific contacts in the call for applications. For positions not associated with a specific research topic in the call, the Executive Committee (Comitato Esecutivo) identifies one or more faculty members with provisional supervision duties at the start of the path. During the first year,

exercising the delegation provided for in Art. 10, the Executive Committee formalizes the assignment of the supervisor and one or more co-supervisors, taking into account the development of the research project, the necessary scientific expertise, and the requirements set out in paragraph 1.

3. The supervisor and co-supervisors guide the PhD student in defining their individual study plan and in identifying and developing their research project. The supervisor and co-supervisors regularly monitor the progress of educational and research activities, promoting the progressive acquisition of scientific and methodological autonomy by the PhD student.
4. Depending on the characteristics of the project, supervision activities include support in critical literature analysis, definition and application of research methods, publication and presentation of results, participation in research projects and networks, and the integration of the PhD student into the national and international scientific community.
5. The supervisor promptly informs the Director of the Programme (Coordinatore/Coordinatrice) if the research work or fulfillment of educational requirements does not comply with the standards of the Programme, particularly in the event of non-observance of educational duties, prolonged unexcused absences, or proven negligence/inactivity. The Director of the Programme submits the matter to the Executive Committee or the Doctoral Programme Committee, according to their respective competence. Furthermore, the supervisor and co-supervisors provide the evaluations required for admission to subsequent years and for the thesis assessment procedure. The Doctoral Programme Committee may revoke the assignment of the supervisor or one or more co-supervisors if the duties established by this Article are not fulfilled.
6. As part of their educational role, the supervisor promotes awareness of and compliance by the PhD student with the Code of Ethics of the University of Trento, the Student Code of Honour, the ICAM Code of Honour, these Internal Regulations, and, as applicable, the University Code of Conduct. If, during the ordinary course of supervision activities, the supervisor becomes aware of facts that may be relevant to the obligations of the doctoral path or to principles of research integrity, they shall promptly inform the Director of the Programme. The competencies of University bodies and the specific reporting and verification procedures set out by the aforementioned Codes and applicable regulations remain unaffected.
7. Any issues regarding the performance of supervision activities may be presented in a reasoned manner to the Director of the Programme by the supervisor or by one of the co-supervisors. The Director of the

Programme evaluates the elements presented and, if the matter requires a decision under the authority of the Executive Committee or the Doctoral Programme Committee, submits it to the competent body.

8. The PhD student may submit a reasoned request to the Director of the Programme for the replacement of the supervisor or one or more co-supervisors. The request is evaluated by the Executive Committee exercising the delegation provided for in Art. 10, taking into account the reasons stated, the continuity and scientific consistency of the research project, as well as the availability and expertise of potential replacements. Submitting a request does not constitute an automatic right to replacement. Replacement can only be resolved if a new available supervisor or co-supervisor is identified who meets the requirements of paragraph 1 and possesses adequate expertise for the specific research project.
9. If the supervisor or one of the co-supervisors resigns, leaves service or office, is unable to perform their duties for a prolonged period, or if the Doctoral Programme Committee decides on revocation pursuant to paragraph 5, the Doctoral Programme Committee or, exercising the delegation under Art. 10, the Executive Committee shall arrange for a replacement in compliance with the conditions specified in paragraph 8. For any potential conflict of interest situations involving members of the decision-making bodies, the provisions of the University General Regulations shall apply.

Art. 13 – Admission requirements and procedures

1. The requirements and procedures for admission to the PhD Programme are governed by applicable legislation and the University Regulations governing PhD Programmes, to which full reference is made.
2. Admission to the Programme takes place through a public competitive procedure aimed at assessing applicants' preparation and aptitude for research.
3. The selection procedures, evaluation criteria, any examinations, eligible languages, the option to conduct examinations remotely, and the procedures for drafting final rankings are defined in the call for applications for each selection procedure, in compliance with applicable legislation and University Regulations.
4. The selection process is carried out by an Admission Committee appointed in accordance with University Regulations. Admission to the Programme takes place based on the merit ranking list(s) formulated by the Committee, within the limits of the positions advertised in the call for applications.
5. Multiple calls for applications may be issued for the same cycle of the PhD Programme, in accordance with the provisions of the University Regulations.

Art. 14 – Educational activities

1. The training of PhD students includes common educational activities and an individual study plan defined in relation to the research project.
2. The Doctoral Programme Committee (Collegio dei e delle Docenti) or, exercising the delegation provided for in Art. 10, the Executive Committee (Comitato Esecutivo), prepares the annual Course Catalog (Manifesto degli Studi), which is approved by the Doctoral Programme Committee and published on the PhD Programme website. The Course Catalog specifies the educational activities offered, their contents, delivery methods, credit hours, ECTS/CFU credits, and any assessment methods.
3. The educational offer includes advanced courses, seminars, workshops, Summer and Winter Schools, and other disciplinary, interdisciplinary, multidisciplinary, and transdisciplinary training activities. It also provides opportunities for language and IT skill enhancement, as well as activities related to teaching, research management, knowledge of European and international research systems, exploitation and dissemination of research results, intellectual property, open access to research data and products, and core principles of ethics and integrity. Activities may be organized by the PhD Programme, by the University, by other doctoral programmes, or in collaboration with Italian or foreign universities, research institutions, companies, and other qualified entities.
4. Additional educational and scientific activities connected to the Programme's research lines may be organized during the academic year. The recognition of such activities and the corresponding credits is decided by the Doctoral Programme Committee or, exercising the delegation provided for in Art. 10, by the Executive Committee.
5. Each PhD student defines their individual study plan with their supervisor and co-supervisors, taking into account the activities planned in the Course Catalog and the specific requirements of the research project. The plan is approved by the Doctoral Programme Committee or, exercising the delegation provided for in Art. 10, by the Executive Committee, and may be subsequently updated following the same procedure.
6. The individual study plan may include qualified educational activities offered by other University departments or by external Italian or foreign institutions. It may also include advanced courses from Master's degree programmes when necessary to meet specific educational needs; such courses serve a complementary role and do not replace specific doctoral-level training.

7. Completed educational activities and acquired credits are recorded in the PhD student's Doctoral Record and contribute to the annual evaluation in accordance with these Regulations.

Art. 15 – Evaluation procedures for admission to the subsequent year and to the external review procedure

1. By the end of the first and second year of the Programme, the PhD student takes an oral examination consisting of a presentation in English of the research activity carried out. The examination takes place before a Committee composed of two or three members of the Doctoral Programme Committee (Collegio dei e delle Docenti) possessing appropriate expertise in the specific research field. For this purpose, the PhD Secretariat requests and obtains the availability of the interested members. If adequate expertise is not available within the Committee, the Secretariat may obtain the availability of professors and researchers from the University of Trento who are external to the Committee. By the deadline established for the presentation, the PhD student updates their Doctoral Record in the University management system, including activities carried out and credits acquired.
2. The supervisor transmits, through the online system, an evaluation shared with the co-supervisor(s) regarding the educational and research activities carried out by the PhD student, the results achieved, the diligence and productivity demonstrated, and the progress of the research project. The Committee transmits a written evaluation of the presentation through the online system. Both the supervisor and the Committee may propose:
   a) admission to the subsequent year of the Programme;
   b) admission to the subsequent year with warnings ("warning");
   c) non-admission to the subsequent year.
3. The Doctoral Programme Committee, based on the Doctoral Record, the supervisor's evaluation, and the Committee's evaluation, issues a reasoned resolution on admission, including admission with warnings, or non-admission to the subsequent year. In cases of deferred evaluations, the Executive Committee (Comitato Esecutivo), based on the delegation granted by the Doctoral Programme Committee, decides on admission to the subsequent year, including admission with warnings. If the Executive Committee considers that grounds for non-admission exist, it refers the files to the Doctoral Programme Committee, which retains sole authority over such decisions.

4. Admission with warnings constitutes admission to the subsequent year accompanied by an indication of the deficiencies identified, the required activities or results, and the deadline within which they must be verified. The PhD student is subjected to an in-itinere assessment test, to be held within six months of the annual examination before a Committee constituted according to the criteria set out in paragraph 1. For the purpose of verification, the supervisor transmits an updated evaluation. In the event of a positive outcome, the warnings are considered resolved. In the event of insufficient results, the Doctoral Programme Committee decides, by reasoned resolution, on exclusion from the Programme pursuant to Art. 25, paragraph 4, letter a) of the University Regulations.
5. In the event of a negative evaluation for advancement to the subsequent year, the Doctoral Programme Committee decides, by reasoned resolution, on non-admission and the consequent exclusion from the Programme, pursuant to Art. 25, paragraph 4, letter b) of the University Regulations.
6. The PhD student may take the exams provided for in paragraphs 1, 4, and 8 remotely if they are away from Headquarters for previously authorized research activities or, in the presence of other justified needs, upon authorization by the Director of the Programme (Coordinatore/Coordinatrice), after consulting the supervisor.
7. By the end of the final year of the Programme, the PhD student submits the application for admission to the review procedure according to the terms and procedures established by the University Regulations. The doctoral thesis must contribute to the advancement of knowledge or methodologies in the chosen field of inquiry. It is written in English and accompanied by a summary in English. The public defense takes place within the terms provided for by the University Regulations, subject to any extensions and postponements ordered by the referees.
8. For the purpose of admission to the review procedure, the PhD student presents their thesis work in English before a Committee composed of two or three members of the Doctoral Programme Committee possessing appropriate expertise in the specific research field. For this purpose, the PhD Secretariat requests and obtains the availability of the interested members. If adequate expertise is not available within the Committee, the Secretariat may obtain the availability of professors and researchers from the University of Trento external to the Committee. By the deadline established for the presentation, the PhD student updates their Doctoral Record in the online system and submits the thesis abstract to the Secretariat. The supervisor transmits, through the same system, an evaluation shared with the co-supervisor(s) regarding the activity carried out and the progress of the thesis.

9. The Doctoral Programme Committee, having acquired the opinions of the supervisor, co-supervisor(s), and the Committee, and having evaluated the Doctoral Record, decides, by reasoned judgment, on the admission of the PhD student to the review procedure. If the results achieved are insufficient, the Committee decides on non-admission to the review procedure and the consequent exclusion from the Programme. In cases where the evaluation for admission to the review procedure takes place on a deferred date relative to ordinary deadlines, the Executive Committee, exercising the delegation provided for in Art. 10, may decide on admission. If it considers that grounds for non-admission exist, the Executive Committee refers the files to the Doctoral Programme Committee, which retains sole authority over such decisions. In the event of admission, the Doctoral Programme Committee or, exercising the delegation under Art. 10, the Executive Committee identifies, after consulting the supervisor and co-supervisor(s), at least two referees chosen from highly qualified professors and researchers belonging to Italian or foreign universities or other institutions. The referees must be external to the University of Trento and to any other entities participating in the PhD Programme. At least one referee must be a university professor or researcher.
10. The PhD student transmits a copy of the thesis and a report on the activities carried out during the Programme and any publications resulting from the Doctoral Record to the referees, following the instructions provided by the Secretariat.
11. Within thirty days of receiving the thesis, the referees formulate a written analytical evaluation and propose either admission to the public defense or a postponement for a period not exceeding six months if they deem significant additions or corrections necessary. After this period, the thesis is subjected to a new written evaluation by the same referees and is in any case admitted to the public defense.
12. For proven reasons preventing the submission of the thesis within the established deadlines, the Doctoral Programme Committee, upon a reasoned request submitted by the PhD student to the Director of the Programme at least thirty days before the end of the final year, may extend the deadline for submitting the application for admission to the review procedure by up to twelve months beyond the regular duration of the Programme. Such an extension does not entitle the student to further scholarship disbursements.
13. For matters not explicitly governed by this Article, Articles 25, 28, and 29 of the University Regulations shall apply.

Art. 16 – Awarding of the degree

1. The final examination consists of a public defense of the doctoral thesis before the Examination Committee and is taken within six months of the conclusion of the Programme, subject to any extensions provided for in Art. 29 of the University Regulations and any prolongation of the deadline resulting from a postponement ordered by the referees.
2. The Examination Committee is appointed by the Rector upon proposal of the Doctoral Programme Committee (Collegio dei e delle Docenti) or the Executive Committee (Comitato Esecutivo), in the exercise of the delegation granted pursuant to Art. 10 of these Regulations.
3. The Committee is composed of a minimum of three to a maximum of five full members, chosen from university professors and researchers or individuals belonging to Italian or foreign institutions, specifically qualified in the subject areas of the thesis. At least two-thirds of the members must be external to the University of Trento and at least two-thirds must come from an academic background. The Committee may be integrated by up to two highly qualified experts, including foreign ones, belonging to public or private entities and structures. In the composition of the Committee, gender balance is respected wherever possible.
4. The Committee is normally composed of three members, one of whom belongs to the Department of Civil, Environmental and Mechanical Engineering and two external to the University of Trento. The Committee appoints a Chair (Presidente) and a Secretary (Segretario/a) from among its members in accordance with the provisions of the University Regulations.
5. Committee members may participate in the thesis defense via suitable audio-video connection tools, provided that at least two members are physically present at the examination site, performing the functions of Chair and Secretary respectively. The electronic mode must ensure the identification of participants, simultaneous participation in the discussion, and accurate recording of the proceedings in the minutes.
6. Prior to the final examination, the PhD student fulfills the thesis deposit requirements provided for in Art. 33 of the University Regulations. The final version of the thesis, the referees' evaluations (including any second evaluation), the reasoned resolution for admission to the review procedure adopted by the Doctoral Programme Committee or, in the cases provided for by Art. 15, paragraph 9, by the Executive Committee, and the evaluations of the supervisor and co-supervisor(s) are made available to the

Examination Committee according to the terms and procedures established by the University Regulations and the competent offices.

7. At the end of the defense, the Committee formulates a written and reasoned evaluation of the work presented. The thesis may be approved or rejected. In the event of approval, the Committee may unanimously award cum laude (laude) in the presence of results of exceptional scientific significance. In the event of non-approval, the candidate fails and is excluded from the Programme. The degree of Doctor of Philosophy, abbreviated as "Dott.Ric." or "Ph.D.", is conferred following the successful passing of the final examination.
8. In the event of the candidate's absence from the final examination, the provisions of Art. 32 of the University Regulations shall apply.
9. For candidates enrolled under international inter-university cooperation agreements, including co-tutoring agreements (cotutela), the composition of the Committee, the examination procedures, and the awarding of the degree are governed by the agreements themselves, in compliance with applicable legislation.
10. For matters not explicitly governed by this Article, Articles 30, 31, 32, and 33 of the University Regulations shall apply.

Art. 17 – Intellectual property and confidentiality

1. Intellectual property rights and confidentiality obligations for PhD students are governed by Art. 34 of the University Regulations.

Art. 18 – Rights and duties of PhD students

1. The rights and duties provided for by applicable legislation and the University Regulations governing PhD Programmes are supplemented by the provisions of this Article.
2. The Programme ensures regular supervision for each PhD student, including periodic discussions on the progress of educational and research activities, access to available facilities and resources in accordance with applicable rules and project needs, as well as updated information regarding activities, deadlines, and procedures. The participation of PhD students in quality assurance processes takes place through their representatives, opinion surveys, and other feedback tools provided by the Programme or the University.

3. PhD students are required to dedicate themselves full-time to educational and research activities, to participate in the activities planned in their study plan, to keep their Doctoral Record updated, and to respect the deadlines and procedures established by the Programme and the University.
4. At the beginning of the Programme, each PhD student signs the ICAM Code of Honour, attached to these Regulations as Annex A and forming an integral and substantial part thereof, and is required to observe it for the entire duration of the doctoral path, together with the University Code of Ethics, the Student Code of Honour, and, as applicable, the University Code of Conduct.
5. The PhD student may report any difficulties encountered during their path—including those related to relations with the supervision team—to the Director of the Programme (Coordinatore/Coordinatrice), the Deputy-Director (Vice-Coordinatore/Vice-Coordinatrice), the PhD Secretariat, or the competent University services. Reports are examined with confidentiality consistent with administrative procedures. The Director of the Programme may interview the interested parties and submit the matter to the Executive Committee (Comitato Esecutivo) or the Doctoral Programme Committee (Collegio dei e delle Docenti) for any interventions within their respective authority.
6. Without prejudice to the grounds for exclusion provided for in Art. 25 of the University Regulations, serious or repeated violations of the ICAM Code of Honour, as well as proven and persistent negligence or inactivity, may result in exclusion from the Programme. Prior to the resolution, the Director of the Programme communicates the contested facts in writing to the PhD student and assigns a reasonable deadline to submit observations and request a hearing before the Doctoral Programme Committee. The Committee, having examined the available elements and any observations submitted by the person concerned, issues a reasoned decision in accordance with the provisions of the University Regulations.

Art. 19 – Tutoring, supplementary teaching activities, and compatible activities

1. PhD students may perform, subject to prior clearance (nulla osta) from the Doctoral Programme Committee (Collegio dei e delle Docenti) or from the Executive Committee (Comitato Esecutivo) in the exercise of delegated functions, tutoring activities (including paid tutoring) for students enrolled in Bachelor's and Master's degree courses, as well as supplementary teaching activities, the latter up to a maximum limit of forty hours per academic year and without any increase in the scholarship, provided that such activities are compatible with the performance of the educational and research activities of the Programme, in accordance with the provisions of the University Regulations.

2. The supervisor verifies that tutoring and supplementary teaching activities do not interfere with the educational path, the implementation of the research project, or the preparation of the thesis.
3. Without prejudice to the full-time commitment required by the Programme, the Doctoral Programme Committee, having consulted the supervisor, may authorize the performance of activities (including paid activities) concerning:
   a) practical-professional internships;
   b) limited external work activities that allow the acquisition of skills relevant to the educational and scientific scope of the PhD degree.
4. The authorizations provided for in this Article are granted subject to verification of the compatibility of the activities with the regular progress of the doctoral path and in compliance with applicable legislation and University regulations.

Art. 20 – Amendments to the internal regulations

1. Pursuant to Art. 8, paragraph 3 of the University Regulations and following the activation of the Programme, any amendment to these Regulations must be preliminary approved by the Doctoral Programme Committee (Collegio dei e delle Docenti) and subsequently by the Board of the Department of Civil, Environmental and Mechanical Engineering (Consiglio di Dipartimento). Amendments enter into force on the date of their publication on the proposing Department's website.

Art. 21 – Final and referral provisions

1. These Regulations supplement, for matters explicitly provided herein, the provisions established by applicable national legislation and the University Regulations governing PhD Programmes, which in any case remain fully and directly applicable.

Annex A – ICAM Code of Honour

Parte integrante e sostanziale del Regolamento interno del Corso di Dottorato ICAM.

Code of Honour of the PhD Programme in Civil, Environmental and Mechanical Engineering

The ICAM PhD Programme promotes a community based on scientific integrity, responsibility, collaboration, and mutual respect.

This Code supplements the provisions of the University Regulations, the Internal Regulations of the Programme, and the codes of the University of Trento.

Commitments of the PhD Student

The PhD student commits to:

1. carry out educational and research activities full-time, with fairness, diligence, and continuity;
2. respect the work and ideas of others, properly citing sources and avoiding any form of plagiarism, fabrication, falsification, or misrepresentation of data, results, attendance, and activities performed;
3. respect personal dignity and maintain proper and collaborative behavior, avoiding discrimination, harassment, intimidation, and offensive conduct;
4. participate in the educational activities and seminars planned in their path, meet deadlines, keep the Doctoral Record updated, and regularly check their institutional email, responding promptly to communications;
5. communicate to the supervisor any difficulties that may compromise the regular progress of the project. Absences and periods of activity away from Headquarters must be communicated and authorized in accordance with the procedures of the Programme and University Regulations. Absences exceeding one week must be reported to the supervisor and the PhD Secretariat;
6. carry out the research project associated with their position or scholarship, subject to modifications approved by the competent bodies;
7. responsibly use shared spaces, equipment, and services of the University. In particular, the PhD student commits to:

   a) comply with the rules of the library and other common areas;

b) maintain silence in environments designated for study and work, avoiding behavior that may disturb the activities of others;

c) contribute to maintaining adequate conditions of order, cleanliness, and hygiene in shared spaces;

d) use printers, photocopiers, equipment, and IT services appropriately, avoiding waste and in compliance with institutional purposes;

e) not permit unauthorized persons to access reserved spaces, equipment, credentials, or services;

f) comply with provisions concerning safety, confidentiality, data protection, and intellectual property;

8. provide complete and truthful information in communications with the Programme, the University, and entities involved in the research project.

Handling Issues

The supervisor and co-supervisors, should they detect potential violations of this Code or situations of serious negligence or inactivity, shall promptly inform the Director of the Programme (Coordinatore/Coordinatrice).

If the reported facts may lead to the adoption of a disciplinary measure, the Director of the Programme communicates them in writing to the PhD student and invites them to provide clarifications within a reasonable deadline. The PhD student may submit observations and documents and request a hearing before the Doctoral Programme Committee (Collegio dei e delle Docenti).

Reports and subsequent investigations are treated with confidentiality and with respect for the rights of the individuals involved.

Measures and Sanctions

The Doctoral Programme Committee, having evaluated the facts and the observations of the person concerned, may issue a formal warning. The repetition of violations that were already the subject of a warning is taken into account for any subsequent measures, but does not automatically determine exclusion from the Programme.

In cases of particularly serious or repeated violations of this Code, proven and persistent negligence or inactivity, and in other cases provided for by the Internal Regulations of the Programme and University Regulations, the Doctoral Programme Committee may issue a reasoned resolution for exclusion from the Programme.

No measure automatically follows a report. The transmission of facts to competent bodies or authorities remains unaffected when required by applicable law or University regulations.

Insurance and Liability

The PhD student benefits from the insurance coverage provided by the University within the limits and conditions established by the relevant policies.

The PhD student is liable, under applicable law, for the consequences arising from unlawful conduct or improper use of facilities, equipment, IT systems, and other resources.

Declaration of Receipt and Commitment to Comply

The undersigned hereby declares to have received and read the Code of Honour of the PhD Programme in Civil, Environmental and Mechanical Engineering, to have understood its content, and commits to observe its provisions throughout the doctoral studies.

PhD cycle: _____

Date: _____

Full Name: _____

Signature of the PhD student: _____