Guidelines for Doctoral Students at ITAS

Institute for Technology Assessment and Systems Analysis (ITAS)
at the Karlsruhe Institute of Technology (KIT)

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1 Objective, Status, and Addressees

(1) Objective: to outline a **common understanding of planned and ongoing doctoral student activities and support at ITAS**. The guidelines describe the organizational framework and the practical embedding of dissertation projects both at ITAS and in the KIT legally binding framework for doctorates (doctorate regulations of the faculty, employment contract). Even though there are different types of doctoral work contracts, ITAS strives for equal treatment of all doctoral students and constructive cooperation among all parties involved.

(2) Status: not legally binding. The guidelines provide orientation and gain their binding character through the declared commitment of the actors involved in the "Agreement Between Doctoral Student and ITAS Mentor". The actors involved are the doctoral students, the ITAS internal supervisors (mentors)[1], the heads of institute (Institutsleitung, IL), and the head(s) of each research group (Forschungsgruppenleitung, FGL). In addition to this document, please also read the general Guidelines for the Doctorate at KIT, which summarize the regulatory framework relevant to the doctorate and provide further information and orientation.

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[1] Every doctoral student at ITAS has an assigned ITAS-internal mentor. The mentor of a doctoral students is responsible for their day-to-day supervision at ITAS, regardless of whether the thesis is officially registered and supervised at KIT or not. If the mentor is allowed to supervise doctoral students at KIT, this mentor can be at the same time also the official supervisor of the doctoral thesis. However, this is not mandatory. Mentors at ITAS can be divided into three groups:
(1) mentors who are allowed to supervise doctoral students at KIT or other German universities and who act as mentor and supervisor at the same time
(2) mentors who are not allowed to supervise doctoral students at KIT or other German universities but act as responsible person for day-to-day supervision of the candidate
(3) mentors who are allowed to supervise doctoral students in non-German universities

(3) Addressees:

- ➤ External students interested in pursuing an interdisciplinary doctorate at ITAS (i.e., prospective doctoral students).
- ➤ Persons who are already doing their doctorate in another contractual relationship and link their dissertation topic to ITAS research. This also includes scholarship holders.[2]
- ➤ ITAS mentors.
- ➤ IL and FGL.

2   Doctoral studies at ITAS – Self-understanding

(1) Dissertations are an essential part of research at ITAS. The introduction of young researchers to problem-oriented, independent, interdisciplinary, and potentially transdisciplinary work is of great importance as it provides new thematic impulses and innovative approaches that can enrich ITAS research.

(2) ITAS understands the preparation of a dissertation – in line with KIT – as an independent professional activity in the respective fields of research, which still contains training elements, but is no longer training in the narrower sense.

(3) ITAS promotes the networking of its doctoral students with the German and international academic and professional communities in technology assessment and systems analysis and related activities (e.g., sustainability sciences, STS).

3   Doctoral studies at ITAS – Conditions of support and success

(1) At ITAS, doctoral students can develop their dissertation according to two main types: the monograph dissertation and the cumulative (paper-based) dissertation, which are considered equivalent. The decision on the type of thesis should be case-specific and made early on by the doctoral student and the supervisor. This decision should be recorded in the "Supervision Agreement." Moreover, this decision should be made in accordance with the dissertation guidelines of the respective faculty. More information about doctoral studies at ITAS as well as a list of current and past dissertation topics can be found here: Doctoral studies at ITAS.

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[2] Doctoral candidates can be divided into three categories:
(1) ITAS-internal candidates registered at KIT
(2) ITAS-external candidates registered at KIT
(3) ITAS-internal candidates not registered at KIT

(2) The doctoral supervision process can be classified into two types: 1) need-based supervision, 2) regular supervision. The initial phase of a doctoral thesis is of considerable importance and therefore requires special attention from the mentors. The ITAS mentors must accompany the doctoral candidate very regularly during the early phase of the dissertation in order to provide the doctoral student with sufficient support. Great attention should be paid to the preparation of a focused exposé and a realistic work plan and a reasonable timeline. The mentors also have a special responsibility with regard to the embedding of the dissertation projects into the general research at ITAS. These activities require a certain amount of time and effort. Therefore, it is essential to plan the work schedules of the mentors and their working groups accordingly.

(3) Doctoral studies at ITAS last usually at least three years. In addition to the individual work plan determined between the doctoral student and the mentor, the following activities are ITAS-specific and mandatory for those who hold a contractual relationship with ITAS:

➢ The progress of the work should be presented to interested colleagues from the institute or within the respective research group about once a year in the PhD Colloquium or a similar joint event. As a rule, the first presentation should introduce the topic and the theoretical approach. Subsequent presentations should focus more on the methodological or empirical concept, preliminary results, and their discussion.

➢ ITAS offers its own doctoral support and training program ("PhD Program/Begleitprogramm"). In a pre-module and four subsequent modules, TA and systems analysis are presented in different facets. In addition, an overview of theories and methods is given. The focus is on learning how to think critically in problem-oriented research. The schedule of individual modules will be announced in advance to doctoral students via the ITAS office. All modules take place within one year and are repeated annually. All modules should be completed over the course of three years. The modules are held in German and/or English (depending on the topic and requirements). After completion of the doctoral support and training program, doctoral students will receive a certificate from the course coordinators upon request.

➢ At the end of the second year, the mentor(s) draw up a plan (as concrete as possible) for the work in the third year together with the doctoral candidate. This should be submitted immediately to the IL for information.

(4) All doctoral students at ITAS (whether with an employment contract or as a scholarship holder) are assigned to a research group. The group leaders are committed to recognizing the doctoral students as full members of the group, to conducting appraisal interviews, and to contributing to positive personal development.

(5) Doctoral students at ITAS (especially those planning a so-called cumulative or paper-based dissertation) should be aware that co-authorship with the supervisor or mentor (or other experienced colleagues) can be helpful and supportive in introducing doctoral students to the "art" of scientific publishing. However, care should be taken to ensure that the supervisor or other persons are only named as authors in a doctoral student's publication if they have made a significant contribution to the publi-

cation. The DFG's Guidelines for Safeguarding Good Research Practice (https://www.dfg.de/en/re-search_funding/principles_dfg_funding/good_scientific_practice/) can be a good guide in this regard. If the joint publication results from the dissertation project, the doctoral student should generally be the first author.

For advice on cases of scientific misconduct, KIT has appointed two Ombudspersons who can be contacted: https://intranet.kit.edu/gute-wissenschaftliche-praxis.php. [the previous link is only accessible from the intranet. If you are interested, please contact the institute]

In addition, the Karlsruhe House of Young Scientists (KHYS) provides Ombudspersons who can act as contact persons in case of conflicts or disputes between doctoral researchers and their mentors or supervisors during the doctorate: Ombudspersons for Doctoral Researchers and Supervisors at KIT

4   Research Environment ITAS

As these guidelines are aimed at different groups of people, the following section provides additional information on some related topics.

Do my ideas or does my already planned dissertation fit with ITAS?

Anyone interested in working on their dissertation at ITAS should ask for a personal interview. Contact persons are primarily the heads of research group (FGLs) who are familiar with the research topics of the institute. Before prospective doctoral students contacts the head of a research group, they should check which topics and groups are most likely to be suitable for their planned dissertation project. For this purpose, a preliminary search on the ITAS website and the ITAS publications webpages is strongly recommended. Ultimately, the point is to check whether ITAS is the right research environment for the planned dissertation project.

In individual cases, it may be useful to complete a "preliminary phase" at ITAS before starting the dissertation. This can be, for example, the preparation of a master's thesis as part of an ITAS project. Whether a preliminary phase is necessary and how it should be structured must be clarified individually. Under no circumstances should the preliminary phase lead to precarious employment.

What are the affiliation options?

At ITAS, there is no standard case for the employment of doctoral students. The following contractual options exist:

➢ (Part-time) contract as a researcher employed by KIT for the sole purpose of doctoral studies; third-party or basic funding.
➢ (Part-time) contract as a researcher employed by KIT for the purpose of doctoral studies and additional project work; third-party or basic funding.
➢ External scholarship (e.g., from DAAD, LGF, foundations, etc.) without additional employment contract.

➢ ITAS may also have external doctoral candidates working outside KIT, who are officially registered at KIT and supervised by ITAS supervisors. These students are especially invited to participate in the doctoral support and training program ("PhD Program/Begleitprogramm").

What specifics apply to scholarship holders?

Scholarship holders at ITAS usually receive an "Infrastrukturnutzungsvertrag" (infrastructure usage contract), i.e., a KIT account that allows access to the library, a workplace at ITAS, and the associated technical infrastructure (computer, telephone, secretarial support). Even though scholars without an employment contract with KIT are formally not members of ITAS – and, e.g., cannot participate in some elections at KIT level – they are encouraged by the institute management to participate in the life and activities of the institute both intellectually and socially (e.g., participation in meetings of doctoral students at ITAS, in the PhD retreat, and other events).

Furthermore, there is generally no social security coverage for scholarship holders via their scholarship. In the interest of full legal integration of scholarship holders into the institute and to ensure social security coverage, the institute is committed to offering scholarship holders a supplementary employment contract. However, some legal restrictions may apply, depending, for example, on the sponsors of the scholarship, visa requirements, and/or KIT regulations. This issue should ideally be discussed between the mentors and the scholarship holder before the start of the doctorate, and the agreement should be documented in the "Supervision Agreement."

Three years for a doctoral project – is that enough?

ITAS has been training doctoral students and awarding doctorates for many years. The question of whether a doctorate can be completed within three years has been asked and discussed repeatedly. Experience shows that it is possible. However, experience also shows that many factors must come together to achieve this. In addition to self-motivation, there are other factors that can only be partially influenced by the doctoral students themselves (e.g., private circumstances, change of reviewers, altered priorities in the dissertation, etc.). If it is not possible to complete the doctorate within three years, students can apply for up to two additional contracts of six months each. This depends on the submission and presentation of a convincing/reasonable work plan and is independent of the financing of the previous phases. The IL decides on this contract in consultation with the candidate's head of research group and mentor.

How is the group of doctoral students organized at ITAS?

(1) The group of doctoral candidates elects at least two spokespersons from among its members each year. These spokespersons are consulted, e.g., at the ILA (Institutslenkungsausschuss – steering committee) meeting, on all questions concerning the doctoral students and serve as contact persons for the IL.

(2) The PhD spokespersons are responsible for the organization of the PhD retreat (i.e., "ITAS DocRetreat", once a year) and organize regular meetings between the IL and doctoral students at ITAS. Further tasks of the spokespersons can be defined internally among the doctoral students. They are the contact persons for all issues and concerns of the individual doctoral candidates and are in this role also persons of trust.

(3) All doctoral students meet regularly for the DocCoffee (usually twice a month). The DocCoffee is an informal meeting where the doctoral students discuss all relevant topics and events concerning PhD life at ITAS. The PhD spokespersons organize the meetings and, if necessary, forward questions and ideas from the group to ITAS.