

The interdisciplinary Research Training Group (RTG) KRITIS "Critical infrastructures: Construction, Functional Crises and Protection in Cities" at the Technical University of Darmstadt, Germany, announces a

## **PhD position (f/m/d)**

scheduled to **begin 1 October 2022**. The position is limited to 3 years (until 30 September 2025) and comprises 65% of a full-time job.

In the KRITIS RTG, historians, sociologists, urban and infrastructure planners, civil engineers, philosophers, political scientists, architects and computer scientists have been working together since 2016. In the third doctoral cohort of the RTG (2022-2025), which is currently being advertised, a total of twelve doctoral research fellows from various disciplines will have the opportunity to write individual PhD theses addressing the overarching theme of the RTG. Under the guidance of several professors, the interdisciplinary exchange is ensured through joint seminars, colloquia and workshops.

The research of the RTG focuses on technical networked infrastructures (water supply and sewerage, transport, energy, information and telecommunication systems), which are explored in their manifold entanglements with (urban) societies. The members of the RTG are researching particularly the "social construction" (How and why does an infrastructure become critical?), the "functional crises" (How do failures occur and what consequences do they have?) and the "protection" of critical infrastructures (How can failures be prevented or their consequences be diminished? How can cities prepare for them?). Our interdisciplinary collaboration is based on the five key concepts 'criticality', 'vulnerability', 'resilience', 'preparedness' and 'prevention'. For information on the guiding questions, the research programme and the first scientific results of the RTG, please see the following website: [https://www.kritis.tu-darmstadt.de/rtg\\_kritis/index.en.jsp](https://www.kritis.tu-darmstadt.de/rtg_kritis/index.en.jsp).

### **Tasks:**

The objective of the advertised position is to develop an independent research contribution to the urban sociology of critical infrastructures by preparing a sociological PhD thesis. Ideally, the PhD project combines an investigation of the dynamics of critical infrastructures with an analysis of their spatial relations, transformations or underlying spatial concepts.

### **Possible research topics include:**

- Functional crises of critical infrastructures through their targeted damage, destruction or shutdown in the context of strategic violent acts (e.g. through terrorist attacks or acts of warfare as currently in Ukraine) with particular focus on their social/spatial effects and dynamics.
- Functional crises of critical infrastructures due to their damage or destruction in the context of natural disasters (e.g. due to earthquakes, tsunamis or floods) with a particular focus on their social/spatial impacts and dynamics.
- Functional crises of critical infrastructures due to their overload or failure in the context of pandemics with a particular focus on their social/spatial impacts and dynamics (e.g. interruption of circulations in the course of measures to contain the SARS-CoV-2 virus and the establishment of new supply routes and services).

- Functional crises of critical infrastructures due to their overload or failure in the context of tourism (e.g. in the context of overtourism).
- Transformation of critical infrastructures through their musealisation/eventisation (e.g. development of the sewers in Vienna as a film tourist destination or water management systems inscribed on the UNESCO World Heritage list).
- Transformation of critical infrastructures through their stepwise reconstruction or their conversion (e.g. after wars and catastrophes).

Beyond these topics, own topic proposals for the sociological investigation of the dynamics of infrastructures that include urban or spatial perspectives are welcome.

### **Requirements:**

The requirement for the position is an excellent academic degree in a social sciences discipline (diploma, master's degree or equivalent) with a focus on perspectives from urban sociology, the sociology of space or the sociological study of infrastructures. Moreover, very good knowledge of qualitative methods of empirical social research is required. As the regular joint activities of the RTG take place in German and English, a good command of the English language and willingness to acquire a good knowledge of German are also expected. An international orientation and experience in interdisciplinary cooperation and/or teamwork are desirable. The place of employment is Darmstadt (near Frankfurt).

The RTG offers an excellent research infrastructure for PhD candidates who would like to complete their dissertations in an innovative, international program. In addition to furthering research on the sociological aspects of critical infrastructures, the position holder is therefore expected to engage with the academic concepts of the research program and to closely collaborate across disciplines. A high level of commitment is expected in the exchange among each other and in joint scientific activities. The PhD thesis may be written in German or English.

The doctoral research fellows will work in common areas with dedicated office space, and will have the support of participating professors and their own research support office. They can take advantage of a wide range of support services during the doctoral phase. These include group/individual coaching, writing workshop, debate training or specific support offers for women. Within the framework of the available financial resources, staying abroad financed over several months is also possible. The RTG collaborates with four foreign partner institutes and with various partners from the field.

Opportunity to work on a PhD thesis is given. The provision of the service also serves the scientific qualification of the applicant.

The TU Darmstadt has an affirmative action program to promote equity in the employment of women and members of underrepresented minorities and strongly encourages them to apply. Candidates who have a degree of disability of at least 50 are given preferred treatment if equally qualified. Salaries depend on each fellow's qualifications and experience and will be calculated according to the collective agreement of TU Darmstadt (TV-TU Darmstadt). By submitting your application, you agree that your data will be stored and processed for the purpose of the recruitment process. You can find our data protection declaration on our homepage.

**Your application:**

Please submit your application by **10 July 2022** in English or German to the following email address (compressed in one file, max. 6 MB): [baumann@ifs.tu-darmstadt.de](mailto:baumann@ifs.tu-darmstadt.de). Please enclose the following documents: (1) a motivation letter, (2) a CV with information on academic qualifications, language skills and international experience, (3) scanned copies of academic credentials, and (4) a short proposal for your planned PhD project (two to four pages), taking into account the scientific program and (some of) the concepts of the RTG.

Potential candidates may contact Ms Allegra Baumann ([baumann@ifs.tu-darmstadt.de](mailto:baumann@ifs.tu-darmstadt.de)) for advice on possible PhD thesis topics and research designs before submitting their application. We look forward to receiving your application!

**Code number: 401**

**Application deadline: 10 July 2022 (CET)**