KRITIS





TECHNISCHE UNIVERSITÄT DARMSTADT

PhD Position Urban Governance and Planning (full-time, 3 years)

Candidates applying in this field are expected to explore the urban governance of infrastructural vulnerability/resilience from an international perspective. The PhD will be conducted within a joint doctorate program between Utrecht University (professor Jochen Monstadt) and TU Darmstadt (professor Sybille Frank) in the form of a cumulative (paper-based) dissertation in the English language. While taking up their residence in the Frankfurt/Rhine-Main region and being employed at the Institute of Sociology at the TU Darmstadt, we expect candidates to visit Utrecht University regularly. Especially welcome is a PhD project focusing on the interconnectivity and coordination of various infrastructure domains, spatial and temporal dimensions of urban infrastructures (and their failures), or the urban governance challenges of crisis mitigation and preparedness. Possible thesis topics include:

- *Infrastructural vulnerability and warfare in Ukrainian cities*: As the Russian attacks on Ukrainian cities illustrate, modern warfare targets urban infrastructure as a key site of societal vulnerability. As a result of network-centric violence, critical infrastructures have emerged as an object and place of insecurity, given their exposure to malicious attacks and cities' dependency on the smooth operation of multiple interconnected infrastructures that sustain their functioning. Based on ex-post empirical studies, the PhD candidate will investigate the crises induced by attacks on urban infrastructure in Ukraine, the coping mechanisms with infrastructural breakdowns, and the mechanisms of preparedness for such attacks. Depending on the evolving crisis in Ukraine, the PhD study will be conducted either on-site or remotely. Essential requirements are good Ukrainian language skills and good knowledge of local contexts.
- Urban rhythms of infrastructural breakdowns: When a power blackout occurs, the internet or public transport break down, urban temporalities come to the fore that are mediated by infrastructures. Such periods of crisis, failure, and breakdown reveal various interruptions in the urban temporalities, asynchronisms, and misalignments—technologically mediated temporalities that are otherwise invisible or neglected. At the same time, they require new forms of time management and temporal alignment to make cities and infrastructures work. While knowledge of the spatialities of infrastructures that have attracted surprisingly little attention so far. Based on ex-post empirical studies on infrastructural breakdowns and crises, the question is, how do such crises affect established urban rhythms, and which temporal coping strategies and realignments can we observe?

• *Technopolitics of infrastructure autarky: Island infrastructures in Singapore*: Driven by geopolitical conflicts with Malaysia over shared infrastructure, the city-state of Singapore has increasingly embarked on water (and to some degree energy) self-sufficiency and waste recycling to secure its ecological and material reproduction. Aiming at both ecological urbanism and higher levels of resource and infrastructural autarky from its Malaysian hinterland, the city-state has leveraged decentralized water sources (e.g., desalination and wastewater recycling), renewable energy, and the recycling of waste. The PhD study will explore this co-production of specialized island infrastructures and security politics in the case of Singapore. Which are the urban and political impacts of cutting off networks from the regional hinterland? Which are the technopolitics of promoting infrastructural autarky and island networks? Which new urban vulnerabilities result from this urban and infrastructural reconfiguration?

We expect applicants to have an above-average university master's degree in planning, geography, or in a related social sciences program. Your education and/or previous activities reflect your strong interest and knowledge in the fields of urban and regional studies and your solid methodological skills in empirical social research. Knowledge in social studies of technology and experience in working internationally are additional assets. Before submitting your application, please contact professor Jochen Monstadt, Utrecht University, for advice on possible PhD topics and research designs.