

## Workshop of the Research Training Group KRITIS

# Vulnerability and Resilience of Critical Infrastructures in Cities

Friday, 15<sup>th</sup> of December, 2017



TECHNISCHE  
UNIVERSITÄT  
DARMSTADT



Over the last years, both research on critical infrastructures and efforts to protect those vital systems have strongly focused on the concepts of vulnerability and resilience. Both concepts highlight the need to address the interdependencies between different infrastructure systems and the risks of cascading failures. In particular, ICT and energy systems do not just rely on each other but are simultaneously vital for a range of other infrastructures. Their failure can thus provoke considerable urban disruptions.

However, a critical reflection of concepts of vulnerability and resilience is severely lacking. While resilience is

perceived as something inherently positive to be enhanced, vulnerability is seen as univocally negative to be reduced or even prevented. Apart from such prevalent views, it is the aim of this workshop to adopt a more critical reading of urban and infrastructural vulnerability/resilience. More specifically, we would like to point to vulnerabilities and failures as important drivers of socio-technical innovation. Furthermore, we question if socio-technical resilience can also stabilize incumbent systems (e.g. transportation systems based on fossil fuels) and thus impede transitions toward next generation infrastructures. Along this line of argument, the workshop will critically reconsider both concepts and unveil their political nature for future research and practice.

The workshop will take place on the 15th of December, 2017 at TU Darmstadt and is organised by the interdisciplinary Research Training Group KRITIS. Presentations from international scholars and practitioners will address the apparent gaps within theory and practice as well as the political nature of both vulnerability and resilience concepts. KRITIS PhD scholars will contribute by presenting insight into their research on critical infrastructures in cities.



## Agenda

- 09:15 Registration
- 09:30 Opening Remark  
[Jochen Monstadt \(Utrecht University/TU Darmstadt\)](#)
- 10:00 [Wijnand Veeneman \(TU Delft\)](#): „The Merge of Energy, Mobility and Data. The growing need for cooperative governance for future infrastructures“
- 10:45 *Coffee Break*
- 11:00 [Margot Weijnen \(TU Delft\)](#): „Characterising the Value of Infrastructure“
- 11:45 [Leon Hempel \(TU Berlin/TU Darmstadt\)](#): „On Storages and Other Reserves. Resilience from a praxistheoretical perspective using the example of the transformation of the energy network“
- 12:30 *Lunch Break*
- 13:30 [Sadeeb Ottenburger \(KIT, Karlsruhe\)](#): „Smart Grids and Urban Resilience“
- 14:15 [Eva Stock \(BBK, Bonn\)](#): „Vulnerability of Critical Infrastructures - Approaches for Implementation“
- 15:00 *Coffee Break*
- 15:30 **Workshop**: „Critical Lens on Vulnerability and Resilience in Research and Practice“  
Moderation: [Andreas Huck \(TU Darmstadt\)](#)
- 16:45 Closing Remarks  
[Michèle Knodt \(TU Darmstadt\)](#)

## Registration

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Please register until  
10<sup>th</sup> of December, 2017.

## Venue

Deutsches Polen-Institut  
Residenzschloss | Marktplatz 15  
64283 Darmstadt

[www.kritis.tu-darmstadt.de](http://www.kritis.tu-darmstadt.de)

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