



2 x Research Fellow in Digital Urbanism

Starting: 01.10.2018 | Reference No. ISU18061

Become an integral part of one of the leading research institutions in Germany
Two PhD candidates, full-time fixed term for 3 years (TV-L E13)

ABOUT THE OPPORTUNITY

The Institute for Sustainable Urbanism ISU is a think-tank and design laboratory headed by Prof. Dr. Vanessa Miriam Carlow based at TU Braunschweig – one of Germany's leading Technical Universities. ISU research, teaching, and discourse focus strategies and tools for sustainable urban development in the context of worldwide urbanization. Building up inter- and transdisciplinary projects within the TU Braunschweig research line FUTURE CITY, ISU teams up with scientists from environmental and social science, engineering, psychology, political science, and informatics, and cooperates with more than fifty cities, municipalities and NGOs worldwide.

In its continuous strive toward progressive research, ISU is currently seeking two PhD candidates for a three year fixed term to help build up a state of the art, multidisciplinary research and competence center on urban research and development rooted in the digital realm – ISU Urban Digital Lab. With the ISU-uLAB, we want to spearhead new directions in digital urbanism research, and enhance the impact of our work. We are looking for two candidates with a strong track record both in fundamental areas of informatics and/or data sciences as well as in targeted application areas. Candidates with experience in the following work fields are strongly encouraged to apply:

KEY RESEARCH THEMES

- **Urban Analytics:** Extracting predictive and actionable knowledge from large volumes of data, e.g. deep learning, non-parametric inference, dynamic system identification, sensor fusion.
- **Urban Modeling:** Algorithms for modeling and simulation of complex (predictive) systems, e.g. human mobility, energy and material flows, microclimate and thermal comfort, immersive realities.
- **Urban Development:** Novel methods, instruments and decision-making tools for an integral, multi-scale, human-centered and participatory urban design and planning practice.

Application Areas: Urbanization patterns, urban design, planning, architecture, sustainable mobility

ABOUT YOU

We are looking for exceptional PhD candidates to conduct high impact research with

- a Master Degree (or equivalent) in computer science or another discipline relevant for Digital Urbanism (as e.g. geoinformatics, mathematics, computational linguistics, information sciences, computer engineering, etc.),
- demonstrated expertise in data sciences related to the ISU key research themes and application areas,
- evidence of capacity to work as part of a multidisciplinary team,
- a commitment to delivering high quality and innovative teaching,
- a demonstrated potential for performing high quality, independent and collaborative research,
- English (preferably also German) excellent written and verbal communication skills.

The position will be for a period of three years, with further employment subject to secured funding availability. In case of adequate performance, the opportunity is given to pursue a PhD degree. The remuneration is determined according to the assignment of tasks and fulfillment of personal requirements up to pay group 13 TV-L. The position is in principal part-time suitable, but should be filled 100%.

ABOUT TU BRAUNSCHWEIG

Technische Universität Braunschweig is the academic center of Braunschweig, City of Science, which lies in the heart of one of Europe's most active research regions. TU Braunschweig's faculties comprise a comprehensive engineering branch and a strong natural sciences branch, closely linked with business sciences, social sciences, humanities and educational sciences. TU Braunschweig is part of TU9 – the group of leading technical universities in Germany.

The TU Braunschweig fosters diversity and inclusion. Applications from people of culturally diverse backgrounds are much welcome. Applications can be in German or English. TU Braunschweig strives to diminish under-representation as defined by the NGG in all areas and positions. Therefore, women in particular are encouraged to apply. Where candidates have the same qualifications, preference will be given to candidates with disabilities. Applications not considered can only be returned against an addressed and sufficiently stamped return envelope. Application and travel costs are non-refundable. Personal data will be stored in connection with the recruitment and hiring process.

Interviews with selected candidates will take place at TU Braunschweig on 21st and 22nd August 2018.

Send your comprehensive application incl. CV, publication list and/or portfolio (digital or printed) till 31st July 2018:

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