



Figure 1. Digital Building Fabrication at Technische Universität Braunschweig

The new professorship for Digital Construction will strengthen the Institute for Structural Design in terms of both content and personnel. In the course of the expansion, the following positions are to be filled on a full- or part-time basis:

Research Assistant for Digital Design with focus on teaching (E13)

The position is to be filled as soon as possible and is initially limited to two years. We are looking for a motivated person to support research and teaching in the field of digital design under the direction of Prof Dr Norman Hack.

At ITE, the focus in research and teaching is on the structural and architectural implications of digital tools and their potential for establishing future digital design, fabrication and construction processes in architecture. Current research focuses on additive manufacturing processes in structural and infrastructure engineering, digital processes and technologies for circular construction, and controlled interaction between the digital and physical worlds through new technologies (AR, VR, 3D scanning, Digital Twins). Research at ITE is cross-material and cross-process, highly interdisciplinary, and focused on international collaboration.

The overarching goal is the implementation of digital processes and technologies for the realization of sustainable and low-carbon impact architecture and construction. The "Digital Building Fabrication Laboratory" (DBFL), a robot-based fabrication center, serves as the central research infrastructure for the additive, subtractive and collaborative fabrication of 1:1 components of different materiality. In addition, a new large-scale research infrastructure, the "Digital Construction Site," is currently under procurement. Here, it will be possible to conduct building-scale research under construction site conditions.

ITE is active both in basic research, especially in the DFG Collaborative Research Center TRR 277 "Additive Manufacturing in Construction", in which the Technical Universities of Braunschweig and Munich pursue the common goal of fundamentally researching additive manufacturing as a digital key technology for the construction industry, as well as in various nationwide and European collaborations with innovative industrial partners from the fields of robotics and 3D printing.

Further information is available under the following links:

Website: <https://www.tu-braunschweig.de/ite>

Research: www.tu-braunschweig.de/trr277

YouTube: [DBFL - TU Braunschweig](#)

Latest Publication: <https://www.mdpi.com/1996-1944/13/5/1093>

Your profile:

- You have completed a scientific degree in architecture or civil engineering with very good results.
- Ideally, you have 1-2 years of professional experience or have completed a postgraduate degree in the field of Digital Fabrication.
- You are interested in the interaction of structure, material and form.
- You are motivated to conduct interdisciplinary research in the field of digital building fabrication and additive manufacturing in construction.

Your tasks:

- Participation in research-related teaching in the field of digital construction.
- Participation in the organisation and administration of the institute.
- The realisation of a doctorate is possible.

For this position we offer:

- Interesting, independent work in an interdisciplinary environment at the intersection of architecture, civil engineering and mechanical engineering.
- The opportunity to participate in shaping the future direction of the Institute.
- Participation in innovative research projects.
- A pleasant working atmosphere in a highly motivated team.
- Individual prioritization in the balance between teaching and research is possible.

Technische Universität Braunschweig is striving to reduce under-representation in all areas and positions within the meaning of the NGG. Therefore, applications from women are particularly welcome. Handicapped persons with equal qualifications are preferred. Proof must be enclosed. Applications from people of all nationalities are welcome. Depending on the assignment of duties and fulfillment of personal requirements, payment is up to EG TV-L E13.

Please send your application, with reference to the position you are applying for, by 15.12.2024 at the latest, together with a letter of motivation, a portfolio of works, a curriculum vitae and certificates.

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Please do not hesitate to contact us if you have any questions.



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INSTITUTE OF STRUCTURAL DESIGN

Application costs cannot be reimbursed. Please understand that applications that have not been considered can only be returned against a self-addressed and sufficiently stamped envelope. Unfortunately, the reimbursement of costs for an interview is not possible. Personal data will be stored for the purpose of the application procedure (according to EU-DSGVO).