



---

At the Institute for Structural Mechanics and Design in the department of Civil and Environmental Engineering at the TU Darmstadt, the research group "Paper Construction and Design" is seeking a

## Research Assistant (all genders) – 80 %

preferably with a focus on building physics, for an initially fixed-term contract til 30.06.2025 (extension is sought) starting at the earliest possible time.

### Your tasks:

We are seeking support in the field of building physics and energy efficiency for an applied research project in the sustainable and promising area of construction using paper-based materials.

*Your tasks include:*

- Design, planning, and implementation of exterior wall constructions made of paper with consideration of building physical aspects (heat, moisture, sound, and fire protection)
- Development of building-physically reasonable layer structures for wall components made of paper
- Detailing of material and component connections with consideration of the essential design and construction criteria for air tightness, water tightness, durability, and fire resistance
- Planning and implementation of prototype paper-based exterior wall constructions
- Determination of building-physical material parameters of paper materials and composites in the laboratory
- Design and execution of experiments in a climate test bench to investigate the hygrothermal performance of paper components under cyclic climate stress
- Building physical modeling and simulation of the laboratory investigations carried out and based on this, development of optimization variants for exterior wall constructions made of paper

As the Institute for Structural Mechanics and Design has an extensive teaching portfolio, active participation in teaching is expected from the applicant.

### Your qualifications:

- Degree in Civil Engineering, Material Science, Mechanical Engineering, Architecture, or comparable qualification (MSc. or Dipl.-Ing.)
- Ability to work independently and motivation to solve scientific challenges in the field of building physics
- In-depth knowledge in the fields of building physics and energy efficiency is desirable
- Willingness to participate in teaching

### We offer:

- A challenging and diversified job in an interdisciplinary research environment where you can make a difference
- Working in a dynamic, motivated, and creative team
- Opportunity for your own scientific qualification and further education
- Family-friendly working environment and payment of a child allowance
- possibility of mobile working
- Attractive company pension scheme
- Free travel entitlement in all regional transport in Hessen by the LandesTicket Hessen in accordance with the applicable tariff provisions

Opportunity for further qualification (doctoral dissertation) is given. The fulfillment of the duties likewise enables the scientific qualifications of the candidate.

The Technische Universität Darmstadt intends to increase the number of female employees and encourages female candidates to apply. In case of equal qualifications applicants with a degree of disability of at least 50 or equal will be given preference. Wages and salaries are according to the collective agreements on salary scales, which apply to the Technische Universität Darmstadt (TV-TU Darmstadt).

Applications, including the usual documents and specifying the reference number, should preferably be sent electronically to the dean of the Department of Civil and Environmental Engineering [dekanat@bauing.tu-darmstadt.de](mailto:dekanat@bauing.tu-darmstadt.de).

By submitting your application, you agree that your data may be stored and processed for the purpose of filling the vacancy. You can find our → [privacy policy](#) on our webpage.

## Code No. 396

Published on June 30, 2023

Application deadline July 14, 2023

---