HafenCity Universität Hamburg - Universität für Baukunst und Metropolenentwicklung (HCU) is focused on the built environment. Education and research at the HCU Hamburg are aimed at contemplating and concretising what the future of metropolitan areas could and should look like. Coping with this future implies a systematic interdisciplinary as well as a transdisciplinary approach. For this reason, the HCU follows an integrated approach that encompasses all fields of study in both research and teaching.

At the HafenCity University Hamburg, the following position is expected to be available immediately at the Digital City Science Professorship, Prof. Dr.-Ing. Jörg Rainer Noennig:

**Research Assistant – EDGE - Building IoT Data Engineer**

(Salary group 13 TV-L)

with 50% of the regular weekly working hours.

The position is limited until 10/2024. There is an option to extend beyond this period.

Digital City Science @ HCU explores the complexity of urban systems with state-of-the-art digital technologies and applies them in the national and international context. The interdisciplinary team develops data-based approaches in order to support the analysis and planning of built urban environments. It brings together expertise from architecture, urban design, spatial planning and geoinformation science, software and media technology. With an extensive network of partners, it creates innovative tools that enable fundamental research of urban systems, as well as applications in concrete urban development projects and academic teaching.

As part of a cooperative research project with Edge Technologies, a leading real estate developer of innovative, healthy and sustainable buildings, the use of Internet of Things (IoT) data in the building and urban planning context shall be explored. In the long-term project, two current construction projects in HafenCity Hamburg are used to develop a pioneering approach on how building and sensor data can be recorded from the construction site to commissioning, and made usable for sustainable district and urban development. In addition to the targeted development of data from smart networked buildings, another goal is the integration of existing urban databases into the planning, construction and operating processes of innovative buildings and neighborhoods. A new data infrastructure (“Smart Building / Smart City Data Hub”) is to be set up, which enables the structured collection of building data as well as their intelligent integration with other data sources. The overall aim is to show how smart buildings (on a small scale) interact digitally with smart neighborhoods (on a medium scale) and smart cities (on a large scale), in order to contribute to holistic urban and district development.

**What are your tasks?**

We are looking for a data engineer whose main focus will be on the development of the system architecture of the smart building / smart city data hub. As part of the position, further development or qualification in the direction of (building) data science is possible and desirable (e.g. within the doctoral project). In cooperation with the project partners, you will carry out the research and development tasks formulated for the above project with a high degree of independence and personal responsibility. You determine the scientific and technical basics and requirements, establish a data infrastructure together with the partners and other scientists in the Digital City Science Team, deal with data preparation, analysis and utilization and publish the results in scientific bodies. In addition, you - in cooperation with other employees of Digital City Science and Edge Technologies - are responsible for the development and implementation of software solutions (API). In the context of the Digital City Science research activities, the project aims to establish and explore the future field of “Building & Environmental Data Engineering”.

**What do we expect?**

University degree (MA, diploma) in computer science, engineering, building informatics, engineering, real estate management or a related subject
What else do we expect?

**Required Skills:**
- Knowledge and experience in software development
- Knowledge and experience in setting up complex IT infrastructures for data management
- Knowledge of data exploration, analysis and evaluation (data science)
- Good English knowledge

**Additional skills and expertise**
- Interest in the topics of construction and urbanization as well as digital (smart) cities
- Familiarity with cyber-physical systems, IoT, Building Information Modeling (BIM)
- Experience in the real estate and real estate context (Prop Tech)
- Familiarity with urban data platforms
- Knowledge of (agile) project and software development
- Project experience, self-organization, self-motivation
- Work experience in interdisciplinary R&D teams

The position provides the opportunity to carry out a PhD project on a self-chosen topic related to the overall project outline.

The HafenCity Universität Hamburg provides a family friendly environment and supports the compatibility of family and career.

Presence in Hamburg is required for this position.

We would point out that the applicant's classification in the level of experience within the advertised TV-L pay group within the recruitment procedure is based on the individually available professional experience of the candidate by the HR department of the HCU. Legally binding statements can only be made by the HR department of HCU.

For further information regarding this position please contact Mr Prof.- Dr.-Ing. Jörg Nönnig, +49 (040) 428 27-4034.

To apply, please send digitally as one PDF-file (max. 10 MB) a detailed CV and a portfolio along with a letter of application by **October 30th, 2021** to:

**E-Mail:** hcu-bewerbung@vw.hcu-hamburg.de

HafenCity Universität
Personalverwaltung
Stellen-Nr.: 2021-100 WiMi EDGE
No. 89344
Henning-Voscherau-Platz 1
20457 Hamburg

Please include the number “**2021-100 WiMi EDGE**” to your application.

Travel and accommodation costs for job interviews cannot be reimbursed by the HafenCity Universität Hamburg.