



The Department of Civil and Environmental Engineering, Remote Sensing and Image Analysis Group is inviting applications for the

Research Assistant – Fusion of SAR and Multispectral imagery – 80%

to work on the research project "Leakage Detection - Satellite-based detection of leakages in long-distance water pipelines", which is funded by the LOEWE - Landesoffensive zur Entwicklung Wissenschaftlichökonomischer Exzellenz, Förderlinie 3: KMU-Verbundvorhaben. The employment is limited from March 2021 until Mai 2022 and in part-time (80%), however further increases are possible depending on the general project situation.

The aim of the project "Leakage Detection" is the development of a satellite-based monitoring system for the detection of leakages in long-distance water pipelines. For this purpose, multispectral and SAR (Synthetic Aperture Radar) images are to be combined by coregistration in order to detect soil moisture caused by water pipe bursts based on changes in the soil structure. In the context of this position, machine learning based methods and algorithms for multisensory and multitemporal data fusion should be developed.

The successful applicant holds a university diploma or master degree in engineering or natural sciences, e.g. geodesy, electrical engineering, computer science, physics or similar, as well as programming skills. Ideally, they have in-depth knowledge in remote sensing, in particular at least in one of the topics:

- Fusion of multimodal remote sensing data
- Co-registration of remote sensing data
- Processing of SAR images, e.g. for soil moisture determination
- Machine learning/deep learning or similar

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).

By submitting your application, you agree that your data may be stored and processed for the purpose of filling the vacancy. Here you can find our privacy policy.

Applications with the common documents (CV, certifications) and reference number must be sent to Prof. Dr.-Ing. Dorota Iwaszczuk, Department of Civil and Environmental Engineering Sciences, Franziska-Braun-Str. 7, Postfach 10 06 36, 64206 Darmstadt, Germany, e-mail: iwaszczuk@geod.tu-darmstadt.de.

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