



ILS Research gGmbH

As a non-university urban research institute based in Dortmund, Germany, ILS Research gGmbH explores and internationally compares the dynamics and diversity of urban change. Our research aims to improve understanding of recent urbanisation processes in order to gain inter- and transdisciplinary insights into the socially, ecologically and economically sustainable transformation and design of urban spaces. Both basic and applied research are conducted, supported by research funding organizations at national and European levels.

ILS Research gGmbH is a subsidiary institute of ILS – Institut für Landes- und Stadtentwicklungsforschung gGmbH (Research Institute für Regional and Urban Development), which focuses on applied research aiming at urban transformation in a regional context. The two institutes (both are non-profit limited companies) work as a joint operation and are closely connected both programmatically and organizationally. ILS Research fits into the research strategy and organizational structures of ILS as the shareholder. The institute with its 70 employees is a member of the Johannes-Rau-Forschungsgemeinschaft e.V.

The **Geoinformation and Monitoring department** at the ILS Research is looking for a

research assistant (m/f/d)

in the third-party funded project „3D Heatmap for sustainable urban applications“. The position is to be filled with a share of **up to 30 hours per week from the 1st of June, 2023 until the 30th of November, 2024** with possible extension. The working languages are German and English. Remuneration is based on the collective pay agreement of the federal states for public sector employees (pay group E 13 TV-L). The goal of the project is to generate a three-dimensional thermographic map of the city of Dortmund to facilitate municipal climate adaptation measures in the fields of the energy-oriented refurbishment of buildings and the reduction of urban heat stress.

Job Profile:

We are looking for highly motivated candidates with professional qualifications, enthusiasm for urban and spatial research (preferably with first research experiences) and the willingness to actively work on collaborative and interdisciplinary projects. The main responsibility of this position is to:

- carry out long-time series analysis of urban heat island effects based on satellite archives
- analyze spatial and temporal patterns of urban heat and urban climate
- conduct thermographic image atmospheric correction and geometric calibration
- develop a workflow to process thermographic images at large scale
- support the development of 3D thermographic models
- deliver period project reports to funding parties
- present the project at scientific conferences and publish results in scientific journals

Your qualifications:

- Master's degree or equivalent degree in Geography, Geoinformatics or related fields with a focus on remote sensing and earth observation,
- Strong experience in remote sensing image analysis
- In-depth knowledge of infrared thermography, and experience and skills in thermal image processing





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- Coding and quantitative analytical skills, preferably in GEE, R, and Python.
- Knowledge of multi-sensor data fusion and oblique imagery processing is advantageous
- Ability to work both independently and in an integrated team environment
- Proficiency in English both oral and written

We offer:

- A wide range of opportunities to pursue your own research interests and to develop your scientific profile, including the opportunity to pursue a doctoral degree
- An interesting job profile in the spectrum between excellence-oriented research, policy transfer and consulting
- Flexible working hours with remote work options
- Workplace within walking distance of Dortmund main train station
- Further education opportunities
- A family-friendly working atmosphere; ILS gGmbH is a certified member of the corporate network "berufundfamilie"
- A motivated international research environment and interdisciplinary team

For more information on our job postings, please visit our website at www.ils-forschung.de.

For further information, please contact the interim head of the Geoinformation and Monitoring department, Dr. Bastian Heider, phone +49 (0)231 9051-154, bastian.heider@ils-forschung.de.

Contact:

Please send your application with the usual documents (cover letter, curriculum vitae, references) in pdf format under the **reference number GuM-WMA-DM-3D-2023-02** to bewerbungen@ils-forschung.de by **4th of May, 2023**.

For information on the application process, please contact Ms. Mareike Graf, phone: +49 (0)231 9051-226.

