

Concerning a full position (100 %), we are hiring a

Research assistant (f/m/d) at the Chair of Non-destructive Testing in the Project **ScanPyramids**

OUR PROFILE

The Chair of Non-Destructive Testing (www.zfp.tum.de) is devoted to research and teaching in the field of material characterization using non-destructive testing methods. The focus of the chair includes the testing of newly developed materials and the use of machine learning methods to process complex data sets. The focus is on techniques such as ultrasound, radar, computed tomography, acoustic emission analysis, and infrared thermography. Industry-wise, the focus is on cooperation with companies from the automotive, aeronautic, and energy sectors. Our main location is in Garching near Munich.

YOUR TASKS

The main task is the further development of methods for the non-destructive investigation of the pyramids of Giza in Egypt (World Cultural Heritage) in cooperation with our partners by using acoustic imaging techniques as part of the ScanPyramids project and with the support of the **GFZ Helmholtz Center for Geosciences in Potsdam**.

- Further development of active and passive seismic measurement techniques, as well as data processing methods for analyzing block-like structures made of limestone and granite
- Evaluation of data using *acoustical imaging* techniques and *passive seismic monitoring*
- Carrying out measurements in a team of experts on and in the pyramids and creating digital object models with numerical simulations, for example, using *Salvus* software or similar.
- Publication of research results and presentation of results at scientific conferences
- Teaching courses and supervising of student theses

YOUR PROFILE

- University master's degree in **geophysics or physics**, above-average, with ideally good knowledge of seismic methods and numerical simulations
- Good PC and programming skills (e.g., with Python, MATLAB)
- Experience with measurement techniques and field measurements using sensor technology (ideally using seismometers, geophones, etc.), as well as in signal processing
- High level of communication and teamwork skills, willingness to travel to the Middle East as part of a team
- Structured and independent way of working with high self-motivation
- Very good knowledge of English, good knowledge of German, proven by certificates (except native speakers)
- Willingness to work flexible hours and high mobility (driving license)
- A willingness to do a PhD is expressly desired

WE OFFER

- Full-time position as a research assistant (remuneration according to TV-L E13), initially limited to 2 years
- Opportunities for further training and conference attendance

The Technical University of Munich aims to increase the proportion of women. Applications from women are therefore expressly welcomed.

HOW TO APPLY?

We look forward to receiving your informative application documents (cover letter, CV, university and high school diplomas, confirmation of internships). Please send these by e-mail in one PDF file to the following e-mail address zfp@ed.tum.de. Applications can be submitted on an ongoing basis.

Prof. Dr.-Ing. habil. Christian Große