Research Associate (Doctoral Student or Postdoc): Sensor and Instrument Engineering in Space Exploration

The Professorship of Lunar and Planetary Exploration at TUM invites applications for a Research Associate at the level of TV-L E13 (public sector pay scale). The expected starting date is as soon as possible. The position encompasses sensor and instrument development, related design tasks, and scientific research in lunar and planetary exploration. The initial contract is limited to 24 months, and extensions are possible.

About us: The Professorship for Lunar and Planetary Exploration is involved in several scientific payload contributions to upcoming lunar missions. This includes a soil permittivity sensor as part of ESA’s PROSPECT instrument package, a novel permittivity sensor for rover applications, and the instrumented drill LVS for in-situ sample analysis. The main scope is the detection and characterisation of lunar volatiles onboard landers and rovers.

The position: Your task is to support these ongoing sensor and instrument developments for various mission opportunities, mainly for the European Space Agency. A specific focus is to develop the electronics for the permittivity sensor data acquisition and processing, and the electrical interfaces to the host platform. This includes development and design tasks, prototyping of hardware, calibration of qualification and flight models, as well as scientific support for the sensor operation and data analysis.

Our offer: We offer the opportunity to conduct research in the area of lunar and planetary exploration at one of the top universities in Europe. You will have the possibility to engage in the international research community, present your work at international conferences, and publish together with members of the research team in leading journals. We also offer the opportunity to engage in teaching activities, such as lectures, practical courses, and supervision of student theses. Through its Graduate Centre and Talent factory, TUM supports PhD students and Postdocs by providing a dedicated qualification program, as well as interdisciplinary collaboration and networking opportunities.

We look for:
- a team player with the ability to work independently with a strong master's degree in aerospace engineering, electrical engineering, or related subjects,
- proficiency in electrical engineering and measurement techniques with practical experience,
- optional experience in software engineering,
- a strong passion and curiosity for space exploration and solar system science,
- a strong affinity for research and teaching, and
- excellent organisational and communicational skills in English (oral/writing).

Application: Please send a max. 1-page cover letter (specifying a possible starting date), your CV, and relevant university and work certificates in one pdf-file by 15 December 2023 to office.lpe@ed.tum.de

Find out more about us at: https://www.asg.ed.tum.de/lpe

As an equal opportunity employer, TUM explicitly encourages applications from women and all others who would bring additional diversity dimensions to the university. Preference will be given to disabled candidates with essentially the same qualifications. The position can also be filled as a part-time position.

As part of your application, you provide personal data to the Technical University of Munich (TUM). Please view our privacy policy on collecting and processing personal data in the course of the application process pursuant to Art. 13 of the General Data Protection Regulation of the European Union (GDPR) at https://portal.mytum.de/kompass/datenschutz/Bewerbung/. By submitting your application, you confirm you have read and understood the data protection information provided by TUM.

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