Universität der Bundeswehr München

At the **Institute for Space Technology & Space Applications**, Faculty of Aerospace Engineering, a limited-term, full-time position as

Research Assistant

(pay-group 13 TVöD)

is open.

We work in various fields of space technology with a focus on highly autonomous operation and autonomous landing of spacecraft, formation flight, satellite technology and system design as well as execution and evaluation of experiments to characterize the mass, gravitational field and atmosphere of planets and other celestial bodies. As part of our research work, we are actively involved in the missions MarsExpress, VenusExpress, Rosetta, JUICE and New Horizon of ESA and NASA.

For a new project about **autonomous landing on asteroids and comets**, we are looking for a research assistant starting **1st of June 2019**. Based on a previous study, this project focuses on the development of a concept for autonomous landing on an asteroid or comet and its validation in a test environment that will be developed in parallel.

Tasks:

Within the project it is your task to define a concept for the highly autonomous landing on small bodies like asteroids and comets and to develop a simulation based on this concept. Together with other team members, the simulation will then be transferred to a test environment, where the landing procedure will be tested and validated by multicopter and model & hardware-in-the-loop:

- Definition of a **landing concept** based on the results of previous studies
- Development of different **models** (actuators, landing dynamics, environment model etc.) for the landing simulation to be developed
- Implementation and validation of the **landing simulation**
- In collaboration with team members, development and implementation of the **multicopter test environment**
- In cooperation with team members, performance and evaluation of **development and validation tests** with the multicopter test environment
- Support in teaching and practical training in space technology as well as general concerns of the institute.

Qualification:

An above-average university degree in space technology or other engineering disciplines, physics or in a comparable field of study.

Knowledge and main interests in the areas of space technology, guidance, navigation & control, as well as programming skills are expected or the willingness to familiarize oneself with these topics.

Suitable candidates have the opportunity to **graduate as Dr.-Ing.** within the scope of their work.

The University endeavors to increase the proportion of women in research and teaching and therefore expressly invites them to apply. Disabled persons with equal qualifications will be given preferential consideration.

Please send your application with the usual documents (preferably electronically) by **8. April 2019** at the latest:

Univ.-Prof. Dr. R. Förstner, Institut für Raumfahrttechnik und Weltraumnutzung LRT 9.1, Fakultät für Luft- und Raumfahrttechnik, Universität der Bundeswehr München, Werner-Heisenberg-Weg 39, 85577 Neubiberg, e-mail: raumfahrt@unibw.de

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