The Institute of Space Systems (IRS) of the University of Stuttgart has been researching space piloting performance in several experimental platforms such as the Concordia and Halley VI stations in Antarctica and the ex-MARS 500 facility in Moscow. The experience gathered in space flight simulator development and pilot performance assessment make the IRS a leading European research institution in this field.

Within the framework of the recently approved project named SIMSKILL-VR, the institute will carry out two new campaigns in the NEK Facility of Moscow, Russia, during a space analog mission organized by the Institute of Biomedical Problems (IMBP), called SIRIUS. The experiment, in cooperation with ESA, NASA and DLR space administration, among others, will simulate a long-term space mission in which the participants are isolated for several months inside a space-station-like ground infrastructure. As part of the research implemented in SIRIUS, SIMSKILL-VR will focus on the use of virtual reality and eye and hand tracking for the assessment of piloting performance, with the goal of understanding how isolation and long duration confinement affect human behavior and performance. The participants of the SIRIUS experiment will be experts on different fields of the space sector, including trained cosmonauts. In order to support the development and implementation of the SIMSKILL-VR experiment, an opening as a researcher is being offered.

The following opening offers a research associate position (wissenschaftlicher Mitarbeiter) initially TV-L E13, 50% for three years, starting from now on. As a member of the Sojuz Simulator research group, within the Astronautics and Space Stations department of IRS, your main duty will be to take part in the development and implementation of a Virtual Reality space flight piloting simulator meant to be implemented in a unique experiment, the SIRIUS research study in Moscow, Russia.

The job will require both technical and organizational skills as a key member of the team:

- As a minimum a Master’s Degree in Engineering (Aerospace, Computer Science, Simulation techniques, ...) is required.
- Good knowledge of computer programming, C, C++ and C# are desired.
- Basics of Virtual Reality and Human-Computer-Interfaces (hand-tracking, eye tracking) are valuable assets.
- Good knowledge of space flight dynamics, and principles of aerospace systems.
As part of an international experiment, language skills and flexibility to travel to Moscow and other locations are needed.

Vergütung: TV-L EG 13

Art der Beschäftigung: Teilzeit

Zeitraum der Beschäftigung: nach Vereinbarung

Bewerbungsfristende: Dienstag, 30. Juni 2020 - 23:59

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Bitte beziehen Sie sich in Ihrer Bewerbung auf https://www.stellenwerk-stuttgart.de/