

Job announcement

The Chair of Geosensors and Engineering Geodesy at the Institute of Geodesy and Photogrammetry, ETH Zurich is currently looking for two

Doctoral students in Engineering Geodesy/LiDAR

for the research project “*Augmented Capability EDM using Phase and Power Spectral Signatures*” starting on 1.8.2019 or upon agreement.

The research project addresses a new approach to electronic distance measurement. It is based on an optical supercontinuum generated from a mode-locked femtosecond laser. Its expected benefits are inline atmospheric correction for high-precision long-distance measurements and enhanced material probing capabilities for laser scanning. We have developed a hardware prototype and shown the basic feasibility. The students will further develop and use the demonstrator for an in-depth analysis of the approach. Together with a theoretical and numerical analysis of adequate spectral configurations, the extended prototype will serve to find solutions for mitigating relevant sources of uncertainty and for demonstrating experimentally that the intended augmentation of EDM can actually be achieved also under realistic use conditions. The main responsibilities within the project will be distributed between the students according to their background and experience.

We are looking for highly motivated candidates holding a master's degree or an equivalent diploma in geodesy, geomatics, electrical engineering, physics or a related field with a background in at least one of the following fields: opto-electronics, photonics, laser scanning, remote sensing or metrology. The candidates should be equally team-minded and self-reliant, proactive and responsible. Fluency in English is required. Experience with design and use of experimental setups, geodetic fieldwork or programming are extra assets.

We offer a position in a very attractive research environment within a young, international and multidisciplinary team. Besides the above research, there will be the opportunity to benefit from ETH's vast opportunities of courses and networks for personal and professional development, to broaden the professional experience through contributions to teaching and by collaborating in other projects of the Chair. Finally, Zurich is one of the most livable cities in the world and offers exciting possibilities for sports, social and cultural life besides research work.

We look forward to receiving your [online application](#). Please note that we exclusively accept applications submitted through our online application portal. Applications via email or postal services will not be considered.

For further information about the Chair of Geosensors and Engineering Geodesy, please visit our [website](#). Questions regarding the position should be directed to Prof. Dr. Andreas Wieser [by email](#) (no applications) or phone +41 44 633 05 55.

