

The Working Group [Coupled Human Landscape System: Risk & Resilience](#) at the [Department of Geography, University Innsbruck](#) (Austria) is seeking candidates for a

PhD POSITION (F*M)

Interactions of hazard processes and technical structures in mountain catchments

(part-time, 20h per week, with an increase to 30 h after acceptance of PhD agreement;
for a period of four years. Starting date is to be arranged.)

Your tasks:

- Conduct independent research for your PhD project in the field of interactions of hazard processes and technical structures in torrents and/or mountain rivers for risk reduction under the regional conditions of global change;
- Elaborate fundamentals of historic and present hazard and risk management strategies and to identify sustainable development pathways for risk management;
- Assess potential effects of structural failure of existing technical structures and protection concepts (e.g. [Piton and Recking 2015](#));
- Contribute to the enhancement of a conceptual model for analysing coupled human-landscape systems in mountain areas (based on [Hossain et al. 2020](#)) identifying crucial couplings and interactions on different spatial and temporal scales ([Ramirez et al. 2022](#)).
- Contribute to the enhancement of technical structures and protection concepts;

Responsibilities:

- Conduct independent research and teaching incl. to contribute to supervision of bachelor and master students;
- Scientific publications;
- Participate in training and continuing education;
- Administrative tasks.

Your profile:

- Master degree in the fields of e.g. geography, geo-informatics, earth sciences, environmental engineering or similar;
- Basic knowledge about physics, fluvial geomorphology, sediment transport, and mountain hazards as well as hazard assessment and risk management. Basic understanding of traditional technical structures and their specific functions is an asset;
- Familiarity or experience with numerical modelling, field measurements or mapping;
- Proficiency in scripting languages (e.g. Python, R, Matlab, ...);
- Strategic and systemic thinking and to develop advanced methods and models for hazard and risk assessment;
- Very good English language skills both in oral and written communication are required;
- Enthusiasm for independent work in an interdisciplinary research team;
- Ability to work independently on complex problems;
- Enthusiasm for scientific work.

Our offer:

This PhD position offers a stimulating research environment with access to the university's infrastructure. Additionally, it provides an opportunity to deliver lectures, tutor students, and contribute to administrative tasks. The position allows for a 50 % allocation of working time dedicated to the completion of the PhD project. The PhD candidate will be part of the [PhD program Geography](#) and the Innsbruck Doctoral College "[Natural Hazards in Mountain Regions](#)" with additional university training and education activities. To learn more about the research objectives and the interdisciplinary team, please visit our [website](#).

The minimum monthly gross salary (20 h) is € 1'639 (14 x), for 30 h the minimum monthly gross salary will be € 2'458 (14 x) according to the salary scheme of the University Innsbruck. The salary may be increased according to relevant professional experience. Furthermore, the university has numerous attractive [offers](#).

To apply, please upload your application including (1) a curriculum vitae, (2) written reflections on the potential PhD project with your application (max. 3 pages), (3) certificates for full academic record, (4), and up to two names of references with the full contact information at the [application portal](#) (Code GEO-13507), **until July 31, 2023**.

For further information or inquiries, please contact Margreth Keiler (margreth.keiler@uibk.ac.at). We look forward to receiving your application and the possibility of welcoming you as a valuable member of our interdisciplinary research team.