

## HiWi Position

March 14, 2025

### Background:

A position for student assistant (HiWi) is available at the Chair of Hydraulic and Water Resources Engineering for the [DanubeSediment\\_Q2 project](#). The project is funded by the Danube Region Programme (co-funded by the EU) and aims to improve the management of sediment quantity and quality in the Danube River Basin to achieve environmental objectives. The specific objectives (SO) of the project are:

- SO1: Improve sediment monitoring, data management and evaluation methods in the Danube River Basin
- SO2: Feasibility of practical solutions to address sediment alteration being co-created with stakeholders
- SO3: Develop transboundary Integrated Sediment Management Plan (ISMP) for the Danube River Basin

Within the project, the chair leads the package of SO 2.3 : **Simulation of sediment management strategies at case study sites**. Our case study site lies in river Inn at the Jochenstein Hydropower Project and the primary objective is to numerically simulate several sediment management solutions at the site to evaluate the suitability of the strategies. **The position is initially offered at 12 hours per week for a duration of 6 months.**

### Major Tasks:

- Conduct numerical hydro-morphodynamic simulations using HEC-RAS
- Assist with data collection and analysis for the project
- Perform multi-criteria analysis (MCA) for sediment management strategies

### Desirables:

The ideal candidate will have:

- **Successful completion of 'River Engineering and Hydromorphology' module**
- Strong interest, experience and familiarity with numerical methods and modeling techniques in hydro-morphodynamics
- Post-processing skills using QGIS and Python

### Contact:

If you are interested in the position, please write a **short email to [rabs.ranjit@tum.de](mailto:rabs.ranjit@tum.de) with your CV and grade report.**