

Research at the Interface of Numerical Modelling and Isotope Hydrology

Project “ModelAge”

Are you interested in a research career and in working at the frontiers of hydrogeology? Then here is an opportunity to do a PhD in an internationally recognized research environment supported by national cooperation partners and companies. For further information please visit our web site.

Scientific focus of the announced PhD position

In the context of the expansion of hydrothermal geothermal energy in Bavaria, a holistic reservoir model of the Bavarian part of the South German Molasse Basin (BaySGMB) is currently being developed. This includes amongst other research topics and associated research projects the numerical modelling of the thermal groundwater system (FEFLOW) below Munich using apparent groundwater ages.

Although many studies have already been carried out for the BaySGMB, the local and regional groundwater flow, the volume fluxes as well as the groundwater origin is still not fully understood. Within the research project ModelAge a better understanding of these issues should be achieved by means of collecting, analyzing and interpreting data on groundwater ages and water chemistry linked to a numerical model.

Qualifications

At the date of appointment candidates must hold an MSc degree in natural science, preferably with a specialization in the following fields: Numerical modeling / hydrogeological sciences or engineering. The successful candidate works efficiently in teams, has good communication skills, and has a critical approach to the formulation and testing of hypotheses. Experience in numerical modelling and willingness to work in the field is a prerequisite.

Approval and Enrolment

The scholarships for the PhD degree are subject to academic approval and the candidates will be enrolled in one of the general degree programs of TUM. For information about the general requirements for enrolment and the general planning of the scholarship studies, please see TUM Graduate School ([Doctorate at the Technical University of Munich - TUM Graduate School](#)).

PhD at TUM

As PhD student at TUM you will be part of the scientific staff. In addition to your scientific work, you have the possibility to participate in the teaching program of the Chair of Hydrogeology. We are one of the leading university institutes in Europe with a large network worldwide. We have an international environment with an international MSc education and supervise almost 10 PhD students at the Chair. Munich is a pleasant place to live with easy transport and a rich cultural life.

Salary and appointment terms

Salary and appointment terms are consistent with the current rules (75% of a full researcher position) for PhD degree students. The period of employment is 3 years.

The successful candidate will be employed and enrolled as a PhD student at TUM, School of Engineering and Design. Starting point in January 2025 is preferred.

Further information

For further information please contact Christian Tomsu (christian.tomsu@tum.de)

Application

- A cover letter explaining the applicant's motivation to apply for the research project (not more than one page)
- A curriculum vitae providing relevant academic, employment and personal details
- Authorized academic transcripts and copies of master thesis work or publications
- Contact details for two reference persons that we may contact for further inquiries

Candidates will be evaluated based on their research potential and commitment and selected candidates will be invited for an interview.

The scholarship is open to both German and international applicants.

All interested candidates irrespective of age, gender, race, religion or ethnic background are encouraged to apply.

Deadline

The application is open until position is filled.

Please send your application to c.tomsu@tum.de (subject: "ModelAge").