Jobbnorge ID: 284172
Deadline: 8/31/2025
Website: https://www.unis.no
Scope: Fulltime
Duration: Project

About UNIS

UNIS is the world's northernmost educational institution, locatedin Longyearbyen. UNIS has technical and scientific equipment, laboratories, and infrastructure for teaching and research in arctic natural sciences and technology related to the sea, land, and atmosphere.

The fields of study include Arctic biology, geophysics, geology, technologyand safety. All teaching is conducted in English, and approximately halfof the staff and students come from abroad. UNIS is a state-owned company, and the administrative language is Norwegian.

As part of our team, you will have the opportunity to experience the spectacular Svalbard with Longyearbyen as your workplace. Longyearbyen is a modern settlement with approximately 2,500 inhabitants, situated in wild and beautiful Arctic nature, offering great opportunities for outdoor activities, experiences, and a vibrant cultural life.

Postdoctoral Position in Glacier-Permafrost Interaction

About the position

Applications are invited for a three-year postdoctoral position within the CryoSCOPEProject (https://cryoscope-project.eu/) funded by the European Union (HORIZON-CL5-2024-D1-01)starting February 2026. The position will be located in the Arctic Geology Department at UNIS, but you will work closely with Thomas Zwinger at CSC - IT Center for Science Ltd in Espoo, Finland. You will also be integrated into a large project with other partners working on Himalayan, European and mainland Norwegian glaciers. Your research will be focused entirely on Svalbard and involve field work activity in Svalbard, during both winter and summer seasons and the implementation of the measured data into numerical models. Travel to the project's partner institutions, to CSC and to international conferences are also expected.

We are looking for a motivated postdoctoral researcher with either existing working knowledge (or the motivation to gain it) in the application of numerical glacier models. The role does not include code development, but rather focuses on the application of Elmer/Ice (https://elmerice.elemrfem.org) to solve a particular problem at hand. We think you should be comfortable with geospatial data management, have preliminary knowledge in running simulations on workstations and clusters, and bring along some basic understanding of continuum mechanics (i.e. have some theoretical understanding of fluid-, solid- and thermo-mechanics and dynamics). You will apply these skills to explore the influence of polythermal glacier retreat upon permafrost aggradation, before examining how this influences groundwater and methane migration towards the glacier forefield. The application will not be limited to synthetic systems, because you will make use of the rich data resources made available by ongoing field work at a heavily instrumented glacier basin near Longyearbyen (the Scott Turnerbreen Forefield Observatory). In addition, you will help manage the fieldwork commitments, data management and outreach that is associated with running this site, working closely with the Principal Investigator, Andy Hodson (https://www.unis.no/staff/andy-hodson/)and other members of the Arctic Geology Department .

Qualifications

Required Qualifications

- A PhD in Geology, Earth Science, Geophysics or a related field that involved numerical modelling of glacial or permafrost mechanics and/or dynamics.
- Geo-spatial data handling skills (GIS, scripting, working on NetCDF files etc).
- Use of Linux machines and compilers, basic scripting in bash and python. Pre- (e.g. mesh generation) and post-processing (e.g., ParaView, Insight, NetCDF visualization) of simulation data.
- An emerging track record demonstrating publications in peer-reviewed, relevant journals.
- Excellent communication and English skills, both written and verbal.

Advantageous knowledge and skills

- To work both independently but also within an interdisciplinary group of field and theoretical glaciologists.
- Experience of polar field work, including the planning and implementation of group work.
- If not experience in, then interest to apply numerical models to glacier and sub-glacial hydrological problems.
- Driver's license class B (valid for Svalbard).

We offer

UNIS offers a challenging and varied job in an exciting, pleasant, and international environment. As an employee, you will be a member of the Norwegian Public Service Pension Fund (SPK), which provides one of the best pension schemes on the market. We also offer excellent insurance schemes, coverage of travel and relocation expenses upon starting the position, and staff housing in accordance with current regulations.

The position is classified under the job code Postdoctor (code 1352). In addition to the base salary, a Svalbard allowance of NOK 42,840 per annum is provided. A 2 % contribution to the Norwegian Public Service Pension Fund is deducted from the salary. The income tax rate in Svalbard is currently 8 %, and a national insurance contribution of 7.7 % is also deducted.

Application

Inquiries about this position may be directed to: Prof. Andrew Hodson, email:andrewh@unis.no

Please include the following documents to the application:

- Full academic CV
- Transcripts and diplomas showing the completion of master's degrees

Application deadline 31.08.2025

It is possible to request that your name/application be exempt from public disclosure in accordance with the Freedom of Information Act (Offentlighetsloven) § 25. The request must be justified. Please note that if the request is not granted, the applicant will be contacted and given the opportunity to withdraw the application.

Diversity, Equity and Inclusion
One of UNIS' values is inclusion. We are committed to achieving diversity within the workforce and creating an inclusive working environment in the high Arctic. We therefore welcome applications from all qualified candidates irrespective of gender, sexual orientation, ethnicity, beliefs, age, or other characteristics.

Additional information

Contact person:

Andrew Hodson, Professor
Phone: | E-mail: andrewh@unis.no

Place of service:

Pb. 156 9171 Longyearbyen (Svalbard Municipality)