

**Jobbnorge ID:** 282369  
**Deadline:** 7/31/2025  
**Website:** <http://www.ntnu.no>  
**Scope:** Fulltime  
**Duration:** Temporary

The Department of Civil and Environmental Engineering has a vacancy for a

## PhD Candidate in Hydrological and Water Resource Modelling in the Himalayan region of Ladakh

### This is NTNU

NTNU is a broad-based university with a technical-scientific profile and a focus in professional education. The university is located in three cities with headquarters in Trondheim.

At NTNU, 9,000 employees and 43,000 students work to create knowledge for a better world.

You will find more information about working at NTNU and the application process [here](#).

Video: <https://youtu.be/Xt-yHCN5QS0>

### About the position

Are you interested in mountain communities and issues surrounding societal development, natural resource management, and climate adaptation? Norwegian University of Science and Technology (NTNU) has a vacancy for a PhD Research Fellow in the hydraulic engineering research group at the department of Civil and Environmental Engineering. Join us to examine the impacts of shrinking glaciers and snow cover on communities in the Himalayan region of Ladakh and contribute to sustainable, community-centered adaptation pathways.

You will work with an enthusiastic team of researchers integrating human and physical geography to tackle the combined challenges of changing meltwater flows and broader political-economic change in mountain regions.

Your PhD project will be supervised by a professor from the Department of Civil and Environmental Engineering together with an Associate Professor at the Department of Geography and Social Anthropology.

Your immediate leader will be a professor.

### About the project

Your work will be part of the project Threatened Lifelines. Analyzing and managing the impacts of shrinking glaciers and snow cover on water flows, land use, and livelihoods in mountain communities of the Indian Himalayas.

This project is led by Martin C. Lukas in collaboration with Oddbjørn Bruland from the Faculty of Engineering and Pascal E. Egli from the Department of Geography and Social Anthropology. It is financed by [NTNU Community](#).

The project investigates the impacts of climate change on mountain communities and fosters just and sustainable adaptation pathways. It focuses on communities in the semiarid Himalayan region of Ladakh, which are highly reliant on seasonal meltwater flows that are increasingly prone to change and decline. The project component to which you will contribute significantly uses climate scenarios, regional climate modelling and glacio-hydrological modelling, calibrated with in-situ measurements, to quantify the impacts of climate-induced cryospheric changes on seasonal meltwater flows and water availability for mountain communities. The other project component examines how these changes intersect with broader societal transformations to impact mountain communities.

The ultimate goal is to support sustainable water governance and development pathways embedded in the region's social-ecological and cultural fabric as well as its long-standing community institutions.

### Duties of the position

- Complete the doctoral education until obtaining a doctorate
- Conduct high-quality research within the framework outlined above
- Produce academic publications and engage in science-policy interfaces and popular science dissemination
- Participate in the project's interdisciplinary collaboration
- Participate in the [Hydraulic Engineering research group](#)

- Participate in international activities such as conferences and/or research stays at foreign educational institutions

Be prepared for changes to your work duties after employment.

## Required selection criteria

(Decide on what is to be defined as absolute qualification requirements and what is to be defined as desired qualifications (the latter are placed in the module below):

- You must have an academically relevant background relevant for hydrological modelling and/or water resources management.
- You must have a Master's degree in Hydraulic engineering, Hydrology, Physical Geography or equivalent. Your course of study must correspond to a five-year Norwegian course, where 120 credits have been obtained at master's level. Master's students can apply, but the master's degree must be obtained and documented before starting the position and no later than 01.10.2025.
- You must have a strong academic background from your previous studies and have an average grade from your Master's degree study, or equivalent education, which is equal to B or better compared to [NTNU's grading scale](#). If you do not have letter grades from previous studies, you must have an equally good academic foundation. If you have a weaker grade background, you may be considered if you can document that you are particularly suitable for a PhD education.
- You must meet the requirements for admission to the faculty of engineering's [Doctoral Programme](#)
- Good oral and written communication skills in English
- High level competency in GIS and Hydrology
- Field experience, including establishing and operating field measurements
- Experience with remotely sensed data and data sources
- Competence and experience in hydrological, glaciological or geophysical modelling
- Strong programming skills in relevant languages and in particular in Python

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**PLEASE NOTE: For detailed information about what the application must contain, see paragraph "About the application".**

The appointment is to be made in accordance with [Regulations for the Universities and Colleges Act \(university and colleges regulations\)](#) and [Regulations for the degrees philosophiae doctor \(ph.d.\) and philosophiae doctor \(ph.d.\) in artistic development work at the Norwegian University of Science and Technology \(NTNU\)](#) for general criteria for the position.

## Preferred selection criteria

- Competencies on IOT and Sensor technologies
- Competency and experience in AI methods
- Good communication skills - written and oral
- Good oral and written presentation skills in Norwegian/Scandinavian language

## Personal characteristics

To complete a doctoral degree (PhD), it is important that you are able to:

- Good cooperation skills and ability to work in a team, as well as independently
- Work in a structured way, set goals and make plans to achieve them
- Present and discuss your research with other professionals
- Get involved and contribute constructively with feedback
- Work constructively under pressure or in the face of adversity
- Show curiosity and strong motivation for the subject
- Analyze data, assess different perspectives and draw well-founded conclusions
- Be flexible and open to adjusting the plan for the project as needed

Emphasis will be placed on personal qualities.

## We offer

- An exciting job with an important [mission](#) in society
- Developing tasks in a strong and international professional environment
- Career guidance and [follow-up during the PhD period](#)
- Open and inclusive working environment with committed colleagues
- [Working capital](#) that can be used to implement the project
- [Mentor programme](#) as a [new employee at NTNU](#)
- As a public employee, you have favourable benefits as a member of the [Norwegian Public Service Pension Fund \(SPK\)](#)

You will be employed as a PhD Candidate at NTNU and will have access to [employee benefits and discounts](#).

## Diversity

Diversity is a strength, and at NTNU we aim to be an employer that reflects the diversity in society and that makes use of the potential of the population's collective skills. Our vision is [Knowledge for a better world](#) and [our values are creative, critical, constructive and respectful](#). We believe that an organization that is equal, diverse and gender-balanced is essential for us to achieve our goals.

We strive to attract employees with different skills, life experiences and perspectives to contribute to even better problem solving of our societal mission in research and education.

If you think this position is relevant and interesting, we encourage you to apply, regardless of gender, functional ability and cultural background, or whether you have been out of work for a period of time.

At NTNU we want to increase the proportion of women in scientific positions. We have a number of [measures](#) to promote equality.

## Salary and conditions

In the position of PhD Candidate, code 1017, your gross salary will normally be NOK 536 200,- per annum depending on qualifications and seniority. A 2% statutory contribution to the State Pension Fund is deducted from the salary.

The employment period is 3 years.

As an employee at NTNU, it is important that you keep yourself up to date with academic and organizational changes and adapt to them.

For the necessary academic and social interaction, it is a prerequisite that you are physically present and available to the institution on a daily basis.

The appointment is carried out in accordance with the principles of the [State Employees Act](#), and [Export control](#) (legislation that regulates the export of knowledge, technology and services). Candidates who, after assessment of the application and attachments, are considered to be in conflict with the criteria in the latter act, will not be able to be employed.

## About the application

The attachments (including a description of your scientific work) must accompany the application as these documents form the basis of the application assessment. The documents must be in Norwegian/a Scandinavian language or English.

**Please note:** the application will only be assessed on the basis of the information we have received by the application deadline. Therefore, make sure that your application clearly shows how your skills and experience meet the criteria described above. The application and all attachments must be sent electronically via [Jobbnorge.no](#). If you are invited to an interview, you must bring certified copies of certificates and diplomas upon request.

The application must include:

- Transcripts and diplomas for Bachelor's and Master's degrees
- CV
- Copy of Master's thesis. If you have recently submitted your Master's thesis, you can attach a draft of the thesis. Documentation of a completed Master's degree must be presented before taking up the position.
- Project outline containing proposals for an overall description of research questions, theoretical perspectives, methodological design for the project and progress plan (maximum 1500 words/4 pages)
- Short letter of motivation (400 words/1 page)
- Possibly publications etc. other relevant research work
- Possibly certificates
- Names and contact information of three relevant referees

If all, or parts, of your education has been taken abroad, we also ask you to attach documentation of the scope and quality of your entire education, both Bachelor's and Master's education, in addition to other higher education. If your institution uses "diploma supplement" (normal for most European institutions), you must attach this. A description of the documentation required can also be found [here](#). If you already have a statement from [Norwegian Directorate for Higher Education and Skills \(HK-dir\)](#), please attach this as well.

Joint works will be considered. If it is difficult to identify your contribution to joint work, you must attach a brief description of your participation.

When assessing the best qualified, we emphasize necessary qualifications such as education, experience and personal suitability. Motivation for the position, ambitions and potential for research will also count when assessing the candidates.

NTNU recognizes a wide range of academic contributions and has committed itself to The San Francisco Declaration on Research Assessment and CoARA (responsible assessment of research and recognition of a greater breadth of academic contributions in accordance with NTNU's social mission).

## General information

A public list of applicants with name, age, job title and municipality of residence is prepared after the application deadline. If you wish to be exempt from entry on the public applicant list, this must be justified. Assessment will be made in accordance with [current legislation](#). You will be notified if the exemption is not granted.

If you think this position looks interesting and in line with your qualifications, you are welcome to apply.

If you have any questions about the position, please contact Professor Oddbjørn Bruland, email [oddbjorn.bruland@ntnu.no](mailto:oddbjorn.bruland@ntnu.no)

If you have any questions about the recruitment process, please contact Consultant HR Oda Aune, email [oda.aune@ntnu.no](mailto:oda.aune@ntnu.no)

**Application deadline: 31.07.2025**

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For practical information about [working at NTNU](#), please visit [this webpage](#).

[The city of Trondheim](#) is a modern European city with a rich cultural scene. [Trondheim is the tech capital of Norway](#) with a population of 200,000. The Norwegian welfare state, including healthcare, schools, kindergartens and overall equality, is probably the best of its kind in the

world. Professional subsidized day-care for children is easily available. Furthermore, Trondheim offers great opportunities for education (including international schools) and possibilities to enjoy nature, culture and family life and has low crime rates and clean air quality.

## **NTNU - knowledge for a better world**

### **NTNU - knowledge for a better world**

The Norwegian University of Science and Technology (NTNU) creates knowledge for a better world and solutions that can change everyday life.

### **Department of Civil and Environmental Engineering**

We conduct research and teaching in civil and transportation engineering, technical planning, structural engineering, water and wastewater engineering and hydraulic engineering. Graduates from our programmes become employees - in both the public and private sectors - with a sustainability mindset combined with competitive knowledge and skills. [The Department of Civil and Environmental Engineering](#) is one of eight departments in the [Faculty of Engineering](#).

### **Additional information**

#### **Contact person:**

Oddbjørn Bruland, Professor

Phone: | E-mail: [oddbjorn.bruland@ntnu.no](mailto:oddbjorn.bruland@ntnu.no)

#### **Place of service:**

Høgskoleringen 7A 7034 Trondheim (Trondheim Municipality)