



# NTNU

Kunnskap for en bedre verden

**Jobbnorge ID:** 223370  
**Deadline:** 4/17/2022  
**Website:** <http://www.ntnu.no>  
**Scope:** Fulltime  
**Duration:** Temporary

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

## PhD in spillways for Hydropower dams

### 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 42,000 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

The Norwegian Research Centre for Hydropower Technology, HydroCen, has a vacancy for a PhD student. HydroCen is hosted by NTNU in Trondheim, Norway, and it is funded by the Research Council of Norway and the Norwegian hydropower industry. The research is both theoretical and experimental and it is mainly focused on hydropower technology. However, the market, environmental impact and social acceptance is also part of the research.

For a position as a PhD Candidate, the goal is a completed doctoral education up to an obtained doctoral degree.

The project within HydroCen, InSpillyFish, where this PhD-position belongs, has a multidisciplinary approach where reduced mortality for downstream migrating fish is an issue. The work is part of work package WP1 in HydroCen, Hydropower Structures. More information can be found here: [HydroCen vannvei og damkonstruksjoner - NTNU](#).

The position reports to the supervisors Work Package leader WP1 Professor Leif Lia and Associate Professor Elena Pummer at the Department of Civil and Environmental Engineering, Research group for hydraulic engineering.

### Duties of the position

The PhD-candidate will work on innovations on spillways for hydropower dams, based on hydraulic design. The research work may include both concept studies, optimization and final design. It may involve both field studies, experimental work in the laboratory and numerical simulations.

The position is limited to three years and no other duties will follow the position.

### Required selection criteria

- Your education must correspond to a five-year Norwegian degree program, where 120 credits are obtained at master's level
- You must have a professionally relevant background in hydraulic engineering or hydropower engineering
- You must have a strong academic background from your previous studies and an average grade from the master's degree program, or equivalent education, which is equal to B or better compared with NTNU's grading scale. If you do not have letter grades from previous studies, you must have an equally good academic basis. If you have a weaker grade background, you may be assessed if you can document that you are particularly suitable for a PhD education.
- You must prove deep insight in hydropower structures and hydropower systems
- Good written and oral English language skills
- You must be able to obtain security clearance for dam safety work

The appointment is to be made in accordance with the regulations in force concerning [State Employees and Civil Servants](#) and [Regulations concerning the degrees of Philosophiae Doctor \(PhD\) and Philosodophiae Doctor \(PhD\) in artistic research national guidelines for appointment as PhD, post doctor and research assistant](#)

### Preferred selection criteria

- Experience from experimental work in the laboratory and the field
- Skills in use of CFD
- Documented cooperative skills in scientific work
- Documented references for supervision of students in lab work and similar

## Personal characteristics

- Contributes to an open-minded scientific working environment
- Contributions to a sustainable social environment will also be valued
- Good communication skills
- Prepared for hard work for periods
- Able to see the good solutions on complicated problems

## We offer

- exciting and stimulating tasks in a strong international academic environment
- an open and [inclusive work environment](#) with dedicated colleagues
- favourable terms in the [Norwegian Public Service Pension Fund](#)
- [employee benefits](#)

## Salary and conditions

PhD candidates are remunerated in code 1017, and are normally remunerated at gross from NOK 491 200 per annum before tax, depending on qualifications and seniority. From the salary, 2% is deducted as a contribution to the Norwegian Public Service Pension Fund.

The period of employment is three years.

Appointment to a PhD position requires that you are admitted to the [PhD programme in Engineering](#) within three months of employment, and that you participate in an organized PhD programme during the employment period.

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The engagement is to be made in accordance with the regulations in force concerning State Employees and Civil Servants, and the acts relating to Control of the Export of Strategic Goods, Services and Technology. Candidates who by assessment of the application and attachment are seen to conflict with the criteria in the latter law will be prohibited from recruitment to NTNU. After the appointment you must assume that there may be changes in the area of work.

The position is fully funded by the Norwegian Research Centre for Hydropower Technology, HydroCen.

It is a prerequisite you can be present at and accessible to the institution daily.

## About the application

The application and supporting documentation to be used as the basis for the assessment must be in English or a Scandinavian language.

Publications and other scientific work must follow the application. Please note that applications are only evaluated based on the information available on the application deadline. You should ensure that your application shows clearly how your skills and experience meet the criteria which are set out above.

The application must include:

- CV, certificates and diplomas
- Transcripts and diplomas for bachelor's and master's degrees. If you have not completed the master's degree, you must submit a confirmation that the master's thesis has been submitted.
- Name and address of three relevant referees
- If you have publications or other relevant research work, please give references.

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. Description of the documentation required can be found [here](#). If you already have a statement from NOKUT, please attach this as well.

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

In the evaluation of which candidate is best qualified, emphasis will be placed on education, experience and personal and interpersonal qualities. Motivation, ambitions, and potential will also count in the assessment of the candidates.

NTNU is committed to following evaluation criteria for research quality according to [The San Francisco Declaration on Research Assessment - DORA](#).

## General information

[Working at NTNU](#)

A good work environment is characterized by diversity. We encourage qualified candidates to apply, regardless of their gender, functional capacity or cultural background.

**The city of Trondheim** is a modern European city with a rich cultural scene. Trondheim is the innovation 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.

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As an employee at NTNU, you must at all times adhere to the changes that the development in the subject entails and the organizational changes that are adopted.

In accordance with The Public Information Act (Offentleglova), your name, age, position and municipality may be made public even if you have requested not to have your name entered on the list of applicants.

If you have any questions about the position, please contact Professor Leif Lia, telephone +47 73 59 47 49 / +47 918 97 792, email [leif.lia@ntnu.no](mailto:leif.lia@ntnu.no) or Ass. Professor Elena Pummer telephone +47 73 59 22 44 or +47 413 74 533, email [elena.pummer@ntnu.no](mailto:elena.pummer@ntnu.no) . If you have any questions about the recruitment process, please contact HR-consultant Amalie Nyeng at email: [amalie.nyeng@ntnu.no](mailto:amalie.nyeng@ntnu.no)

Please submit your application electronically via [jobbnorge.no](http://jobbnorge.no) with your CV, diplomas and certificates. Applications submitted elsewhere will not be considered. Diploma Supplement is required to attach for European Master Diplomas outside Norway. Chinese applicants are required to provide confirmation of Master Diploma from [China Credentials Verification \(CHSI\)](#).

If you are invited for interview you must include certified copies of transcripts and reference letters.

**Application deadline: 17.04.22**

## **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**

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

NTNU Trondheim 7031 Trondheim (Trondheim Municipality)