

**Jobbnoze ID:** 245900  
**Deadline:** 7/31/2023  
**Website:** <http://www.ntnu.no>  
**Scope:** Fulltime  
**Duration:** Temporary

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

## PhD Candidate in Sustainable Soil Stabilisation

### 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 job

The Department of Civil and Environmental Engineering at NTNU has an open position for a PhD candidate in sustainable soil stabilisation. It focuses on evaluating climate friendly techniques for soil stabilisation using laboratory and field experiments.

The PhD position will be affiliated to the Geotechnical Engineering group which focuses on computational geotechnics complimented by extensive field work and advanced field and laboratory testing of geomaterials. The research of our group aims for safe, environmentally sound, and cost-effective solutions for the built infrastructure. Research encompasses roads, railways, harbours, and complex deep-underground city construction.

The PhD Candidate will be part of a research team in the "[Sustainable, Stable Ground](#)" (SSG) project. This project aims to radically change the deep-mixing technology to sustainable alternatives originating from solid wastes and make a circular economy around this technology. To achieve this goal, interdisciplinary research is set up with a bottom-up combined experimental and modelling approach, across both scales and disciplines. The study focuses on stabilizing soft marine clays and "quick clays" in particular. Quick clays pose a hazard threat to the society, and it is important to develop environmentally friendly and cost-effective methods to stabilize this material.

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

The position has a duration of 3 years.

You will report to a main supervisor.

### Duties of the position

- Evaluate and understand the performance of industry by-products and alternative binders to stabilise clays using advanced laboratory testing and in-situ mechanical testing
- Assess the hydro-mechanical properties of stabilized clays with macro scale tests
- Contribute to the development of a tool for design and modelling of stabilized soils based on advanced modelling techniques and a material model for deep mixed stabilized soil
- Collaborate with the other researcher in the SSG project
- Disseminate research findings using typical academic channels (e.g., presentations at conferences/workshops and peer-reviewed publications)

### Required selection criteria

- You must have a professionally relevant background in geotechnical (civil) engineering
- Your education must correspond to a five-year Norwegian degree program, where 120 credits are obtained at master's level
- 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 meet the requirements for admission to the faculty's doctoral program: <https://www.ntnu.edu/iv/doctoral-programme>

- Good written and oral English language skills

The appointment is to be made in accordance with [Regulations on terms of employment for positions such as postdoctoral fellow, Phd candidate, research assistant and specialist candidate](#) and [Regulations concerning the degrees of Philosophiae Doctor \(PhD\) and Philosodphiae Doctor \(PhD\) in artistic research national guidelines for appointment as PhD, post doctor and research assistant](#)

## Preferred selection criteria

- Experience and a strong research interest in soil stabilization at both laboratory and field scale
- Data analysis skills and experience with relevant software and programming languages (e.g., MATLAB, Python)

## Personal characteristics

- Self-driven, hardworking, motivated and engaged
- Independent, analytical and with a scientific mindset
- Academic team player and collaborative

Emphasis will be placed on personal and interpersonal qualities.

## 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

As a PhD candidate (code 1017) you are normally paid from gross NOK 532 200 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 3 years.

Appointment to a PhD position requires that you are admitted to the PhD programme in Civil Engineering ([www.ntnu.edu/ibm/phd](http://www.ntnu.edu/ibm/phd)) 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.

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.

Publications and other scientific work must follow the application. Please note that your application will be considered based solely on information submitted by the application deadline. You must therefore ensure that your application clearly demonstrates how your skills and experience fulfil the criteria specified 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
- A copy of the master's thesis. If you recently have 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
- Name and contact information of three referees
- If you have publications or other relevant research work

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.

We will take joint work into account. If it is difficult to identify your efforts in the joint work, you must enclose a short 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](#)

NTNU believes that inclusion and diversity is our strength. We want to recruit people with different competencies, educational backgrounds, life experiences and perspectives to contribute to solving our social responsibilities within education and research. We will facilitate for our employees' needs.

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**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.

A public list of applicants with name, age, job title and municipality of residence is prepared after the application deadline. If you want to reserve yourself 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 reservation is not accepted.

If you have any questions about the position, please contact Associate Professor Priscilla Paniagua by telephone +47 948 29 497 or email [priscilla.paniagua@ntnu.no](mailto:priscilla.paniagua@ntnu.no). If you have any questions about the recruitment process, please contact HR Consultant Martine Sulen, e-mail: [martine.sulen@ntnu.no](mailto:martine.sulen@ntnu.no).

If you think this looks interesting and in line with your qualifications, please submit your application electronically via [jobbnorge.no](http://jobbnorge.no) with your CV, diplomas and certificates attached. Applications submitted elsewhere will not be considered. Upon request, you must be able to obtain certified copies of your documentation.

**Application deadline: 31.07.2023**

## 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:

Department of Civil and Environmental Engineering 7034 Trondheim (Trondheim Municipality)