

Jobbnorge ID: 254046
Deadline: 12/17/2023
Website: <http://www.ntnu.no>
Scope: Fulltime
Duration: Temporary

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

Postdoctoral Fellow in Geotechnical Engineering

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

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

About the job

The postdoctoral research will investigate Thermal-Hydraulic-Mechanical (THM) behaviour of field scale geothermal energy piles using physical and numerical modelling. The main purpose of this research is to investigate the thermo-mechanical performance of energy piles installed in Norwegian ground conditions such as quick clay. An experimental (lab and field scale) and numerical study will be carried out to investigate the potential of geothermal energy piles in Norwegian climate. The project is a part of EU project called LEG-DHC (Large-scale climate neutral Energy Geostructures in District Heating & Cooling systems/networks) in cooperation with various European Universities and Industries. The aim of LEG-DHC project is to boost the development of Energy GeoStructures (piles, tunnels, walls) technology and to evaluate its integration into district heating and cooling systems. The upscaled geothermal energy technology will be integrated with other renewable energy resources, green buildings and greenhouse gas reduction strategies to create next generation zero emission thermal networks.

The postdoctoral fellowship position is a temporary position for 3 years where the main goal is to qualify to work in senior academic positions in future.

Your immediate leader is Professor Rao Martand Singh.

Duties of the position

- Undertake research on energy geo-structures
- Assist the project leader in managing the project
- Write journal papers and funding applications
- Present research in conferences and attend project meetings
- Supervise Master students
- Occasionally teaching Master level courses

Required selection criteria

- You must have completed a Norwegian doctoral degree or corresponding foreign doctoral degree recognized as equivalent to a Norwegian PhD in Geotechnical Engineering. If you can document that the PhD thesis has been submitted, your application can be assessed even if you have not yet defended your dissertation. Documentation of the obtained doctoral degree must be presented before you can take up the position
- Relevant experience in the field of energy pile foundations
- Excellent publication record in energy pile research

The appointment is to be made in accordance with [Regulations on terms of employment for positions such as postdoctoral fellow, Ph.D Candidate, research assistant and specialist candidate](#).

Preferred selection criteria

- Master's in Geotechnical Engineering
- Bachelor's in Civil Engineering

- Excellent written and oral English language skills

Personal characteristics

- Highly motivated to do research in energy geo-structures field
- Independent and able to work with little supervision
- Challenges the status quo and takes new initiatives
- Able to work with others in a team

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 Postdoctoral Fellow (code 1352) you are normally paid from gross NOK 594 500 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.

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 subject to external funding.

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

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 be attached to 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.

If, for any reason, you have taken a career break or have had an atypical career and wish to disclose this in your application, the selection committee will take this into account, recognizing that the quantity of your research may be reduced as a result.

The application must include:

- CV (no more than 4 pages) including publication list
- Transcripts and diplomas for bachelor's-, master's- and PhD degrees. If you have not yet completed your Ph.D, you must provide confirmation on your estimated date for the doctoral dissertation, or that your PhD thesis has been submitted
- A copy of the doctoral thesis. If you are close to submitting, or have recently submitted your thesis, you can attach a draft of the thesis. Documentation of a completed doctoral degree must be presented before taking up the position
- Academic works - published or unpublished - that you would like to be considered in the assessment (up to 5 journal papers)
- Research plan (2 pages)
- Name and contact information of three 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. 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](#)

NTNU believes that inclusion and diversity is a strength. We want our faculty and staff to reflect Norway's culturally diverse population and we continuously seek to hire the best minds. This enables NTNU to increase productivity and innovation, improve decision making processes, raise employee satisfaction, compete academically with global top-ranking institutions and carry out our social responsibilities within education and research. NTNU emphasizes accessibility and encourages qualified candidates to apply regardless of gender identity, ability status, periods of unemployment or ethnic and cultural background.

NTNU is working actively to increase the number of women employed in scientific positions and has a number of [resources to promote equality](#).

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.

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 Professor Rao Martand Singh, email: rao.m.singh@ntnu.no telephone: +47 73559323. If you have any questions about the recruitment process, please contact Hege Johansen, e-mail: hege.johansen@ntnu.no

If you think this looks interesting and in line with your qualifications, please submit your application electronically via jobbno.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: 17.12.2023

NTNU

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:

Høgskoleringen 7a 7491 Trondheim (Trondheim Municipality)