

Jobbnorge-ID: 149851

Søknadsfrist: Avslutta

Nettside:

Omfang:

Varighet:

PhD position on innovative protection solutions from landslides triggered by extreme weather events (IV-119/18)

Description

Extreme weather increases the risk of landslides that may close roads and railroads and destroy buildings and bridges. A changing climate in Norway leads to more extreme weather and action is required to limit the increasing potential for damage caused by landslides. Therefore, improving knowledge and developing technical solutions as well as methodologies for providing more resilient infrastructure is needed. This PhD study will explore innovative solutions for the protection from landslides at potentially exposed sites either by preventing the release or escalation of a slide, stopping or channelling the debris or by designing structures that may withstand the expected forces. The solutions should be developed based on an understanding of the dynamics of landslides, including aspects such as initiation processes, run-out, as well as the dynamic forces from and the behaviour of the fluidized soil/water mass. The aim is to identify methods for protection from landslides based on results from field studies, physical modelling and/or numerical methods. The research should target practical applications and cost-effective mitigation measures of landslide risk applicable to Norwegian conditions.

The PhD position is part of Klima 2050, a Centre for Research-based Innovation (SFI) financed by the Research Council of Norway and 20 consortium partners, hosted by SINTEF. Klima 2050 aims to reduce the societal risks associated with climate changes and increased precipitation and flood-water exposure within the built environment. Read more about the SFI at www.klima2050.no. The current PhD position is at NTNU within the SFI - Work Package 3 (WP3) "Landslides triggered by hydro-meteorological processes". This is PhD position No. 3 of 3 within WP3. The work is to be performed in a research group at NTNU with other PhD students, MSc students and advisors and will build on and continue ongoing work. WP3 is led by the Norwegian Geotechnical Institute (NGI). The work shall be performed in close cooperation with NGI, SINTEF and with the public and industrial partners in Klima 2050. Interaction with EU funded research on nature based mitigation solutions ('PHUSICOS'), the E39 Coastal Highway project, and the RCN funded research project, KlimaDigital, is relevant.

Qualifications

Preferably, the applicant should hold a Master's degree in civil -or geotechnical engineering. Applicants with alternative MSc degrees may be considered if relevant knowledge related to engineering is documented, such as mechanical or structural design, fluid dynamics, physics, geology, etc. The successful candidate should be enthusiastic, highly motivated and be willing to work independently and in a team. Ability to cooperate with the Klima 2050 project partners is essential. In the application the candidate is encouraged to present his or her motivation for this particular PhD study and briefly sketch how he or she expects, intends or hopes to contribute to Klima 2050 on resilience of infrastructure exposed to landslides.

The successful candidate must fulfil the requirement for admission to the doctoral program at the Faculty of Engineering, NTNU. The working languages will be Norwegian and/or English. All applicants must be able to communicate fluently in English (spoken and written). Candidates from universities outside Scandinavia and English speaking countries are kindly requested to document English language proficiency (TOEFL, IELTS, Cambridge Certificate in Advanced English (CAE) or Cambridge Certificate of Proficiency in English (CPE)).

Conditions

PhD Candidates are remunerated in code 1017, and are normally remunerated at gross NOK 436,900 before tax. There will be a 2 % deduction to the Norwegian Public Service Pension Fund from gross wage.

Engagement as a PhD Candidate is done in accordance with "Regulation concerning terms and conditions of employment for the posts of post-doctoral research fellow, research fellow, research assistant and resident", given by the Ministry of Education and Research of 19.07.2010. The goal of the positions is to obtain a PhD degree. Applicants will engage in an organized PhD training program, and appointment requires approval of the applicants plan for a PhD study within three months from the date of commencement.

The position is of 3 years duration.

Working address is at NTNU in Trondheim. For further information about the position, please contact Prof. Vikas Thakur, NTNU, Trondheim. Email: Vikas.Thakur@ntnu.no or Prof. Steinar Nordal, NTNU, Trondheim. Email: Steinar.Nordal@ntnu.no or WP3 leader Dr. José Cepeda at NGI Email: jose.cepeda@ngi.no.

See <http://www.ntnu.edu/iv/docoral-programme> for more information.

The engagement is to be made in accordance with the regulations in force concerning State Employees and Civil Servants. The positions adhere to the Norwegian Government's policy of balanced ethnicity, age and gender. Women are encouraged to apply.

The application

The application must contain information of educational background and work experience. Certified copies of transcripts and reference letters should be enclosed. Contact information for two references (including email addresses and telephone number) is wanted. Applications with CV, grade transcripts and other enclosures should be submitted via this webpage at www.jobbnorge.no. **Mark the application with IV-119/18.**

Start-up date preferably 1. September 2018

Application deadline is 16. April 2018

According to the new Freedom of Information Act, information concerning the applicant may be made public even if the applicant has requested not to be included in the list of applicants

Tilleggsinformasjon

Arbeidssted: