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The Department of Geoscience and Petroleum has a vacancy for

Two PhD Positions in Rock Engineering for IOE-WRC, TU Nepal - IV-62/23

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

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

Department of Geoscience and Petroleum (IGP) has two vacant PhD research positions with focus on 1) Stability Assessment of Underground Excavations and 2) Rock slope stability assessment. The PhD positions are funded by NORAD under the NORHED II PROJECT 70141 6 Capacity Enhancement in Rock and Tunnel Engineering at Paschimanchal Campus (WRC), Institute of Engineering (IoE) of Tribhuvan University (TU) in Nepal. These positions are only relevant to the permanent faculties of Paschimanchal Campus (WRC) of Institute of Engineering (IoE), Trubhuvan University (TU) in Nepal.

The two PhD positions are for total three- and half-year period. The PHD research will be conducted both at the Department of Geoscience and Petroleum (IGP) of NTNU and at IoE under sandwich program. Both PhD positions are a part of a team "NORHED II PROJECT 70141 6 Capacity Enhancement in Rock and Tunnel Engineering" at Paschimanchal Campus (WRC), Institute of Engineering (IoE) of Tribhuvan University (TU) in Nepal.

The candidates will closely work and report to Professor Krishna Kanta Panthi who is the Project manager and supervisor for both PhD research positions.

Your immediate leader is Head of Department.

Duties of the research position

PhD Position 1: The PhD fellow will be responsible to carry out research associated to the stability assessment of underground openings passing through weak rock mass in Himalayan geology. The research is specifically aiming to explain and gain a better understanding of the following issues:

- Engineering behaviour of medium to weak rock mass including rock mass of weakness zones
- Stability assessment and design of underground openings in such rock mass

PhD Position 2: The PhD fellow will be responsible to carry out research associated to the stability assessment and design of rock cut slopes. The research is specifically aiming to explain and gain a better understanding of the following issues:

- Characterization and challenges associated to rock slope failure in Nepal
- Comprehensive stability assessment of the cut-slope for optimum and sustainable design

Required selection criteria

The applicants should have a MSc degree in civil engineering with MSc thesis written with a focus on tunnel stability issues or geotechnical engineering or earthquake engineering. The applicants must be the permanent faculty at Paschimanchal Campus (WRC) of IoE, TU in Nepal and preferably should be under the age of 45 years. The applicants must commit to work under sandwich program and must commit to stay

both in Norway and in Nepal. The applicants must also commit to return to WRC and work there for at least 5 years at WRC after the completion of PhD research.

In addition, the applicants must qualify for the admittance as PhD fellows at NTNU. Excellent written and oral English is a prerequisite. The qualification requirement is that the candidate must have completed a master's degree or second degree (equivalent to 120 ECTS Credits) with a strong academic background in respective field with a grade of B or above in terms of [NTNU's grading scale](#).

If the applicants do not have letter grades from previous studies, the applicants must document that they have a score higher than 78 percent at the Master level study. If the applicants are unable to meet above academic criteria, the candidate may be considered for the position only if documentation is made such that explains that the candidate has qualities to successfully carry out research at an international standards that leads to the completion of PhD degree.

The appointment is to be made in accordance with the regulations set by NORAD under the scholarship of NORHED II Project 70141 6: Capacity Enhancement in Rock and Tunnel Engineering at Paschimanchal Campus (WRC), Institute of Engineering (IoE), Tribhuvan University (TU), Nepal.

- The applicants should document that they are fluent in English both spoken and written
- The applicants should also submit a about two pages research proposal in one of the research areas mentioned above
- The applicants should also include a commitment letter which guarantees that the applicants will actively contribute to teaching and research on Rock and Tunnel Engineering Program at WRC at least for 5 years after the completion of PhD.

Preferred selection criteria

- Full filled academic criteria
- Documentation of research qualities and motivation to research
- Commitment letter
- Relevant background to carry out the research in assigned field
- Competent in the use of digital programs such as GIS, AUTOCAD, numerical modeling, programming etc.
- Documentation of excellent written and oral English
- Must submit CV and provide three reference persons with contact details

Personal characteristics

- Person with high motivation in research and learning
- Ready to work both independently and in the 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

Salary and conditions

PhD candidates are remunerated according to the scholarship amount set by NORAD under NORHED II projects which is NOK 19 000 per month before tax while they are in Norway and according to the payment scheme that is being practiced at IoE scholarship schemes for PhD fellows budgeted under NORHED II Project while candidates are in Nepal.

The period of employment is **until the end of 2026 which is slightly more than three years.**

Appointment to a PhD position requires that you are admitted to the PhD programme under NORHED II, and that you participate in an organized PhD programme during the employment period.

The engagement is to be made in accordance with 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.

The position is subject to external funding.

It is a prerequisite that the candidate works at the department premises while being in Norway and Nepal and reports to the supervisor(s) and is accessible to the institutions 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 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:

- Academic certificates, transcripts, and diplomas (all in English Language)
- Documentation about proficiency in English Language
- Curriculum Vitae not exceeding three pages (in English)

- Two pages long research proposal in the research topic (in English)
- Commitment letter (in English)
- Published article(s) (if any in English language)
- Name and address of three references, both telephone and e-mail

In the evaluation of which candidate is best qualified, emphasis will be placed on education, software competence, experience, proficiency in English and personal suitability. The gender balance will be given a priority.

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.

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.

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 a PhD research fellow 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 Krishna Kanta Panthi, telephone +47 48240695, e-mail krishna.panthi@ntnu.no. If you have any questions about the recruitment process, please contact Anne-Lise Brekken, e-mail: anne.lise.brekken@ntnu.no.

If you think this looks interesting and in line with your qualifications, please submit your application electronically via 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: 05.03.2023.

NTNU - knowledge for a better world

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

Department of Geoscience and Petroleum

We conduct teaching and research related to management of Earth's geological resources. Norway's rich resources of wind, water, oil, gas and minerals have been and are essential to the country's prosperity, and will continue to be in the future. The Department plays a key role in the development of technology and the education of graduates who enable value creation based on our natural resources. [The Department of Geoscience and Petroleum](#) is one of eight departments in the [Faculty of Engineering](#).

Tilleggsinformasjon

Arbeidssted:

Institutt for geovitenskap og petroleum 7491 Trondheim (Trondheim Kommune)