The Department of Geoscience and Petroleum has a vacancy for

Two PhD Research Positions in Rock and Tunnel Engineering for the “NORHED II PROJECT 70141 6: Capacity Enhancement in Rock and Tunnel Engineering at Paschimanchal Campus (WRC), Institute of Engineering (IoE), Tribhuvan University (TU), Nepal” - IV-184/21

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
Department of Geoscience and Petroleum (IGP) has two vacant PhD research positions with focus on 1) Stability Assessment of Underground Excavations and 2) Selection of Tunnel Construction Methods in Himalayan Rock Mass Conditions. 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), Tribhuvan University (TU) in Nepal.

The two PhD positions are for a four years period and will be run at the Department of Geoscience and Petroleum (IGP) of NTNU. The PhD fellows will be 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.

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

- Engineering behaviour of Himalayan rock mass
- Appropriate methods for the stability analysis and design of underground openings

PhD Position 2: The PhD fellow will be responsible to carry out research associated to construction methods for underground openings in Himalayan rock mass. The research is specifically aiming to explain and gain a better understanding of the following issues:

- Challenges associated to underground excavation in Himalayan rock mass
- Excavation methods suitable for underground openings passing through Himalayan rock mass

Required selection criteria
PhD Position 1: The applicants should have a MSc degree in civil engineering with MSc thesis written with a focus on either hydropower engineering or geotechnical engineering or earthquake engineering. Candidates must be the permanent faculties at Paschimanchal Campus (WRC) of IoE, TU in Nepal and preferably should be under the age of 45 years. The candidate must commit to return to WRC and work there for at least 5 years at WRC after the completion of PhD research.

PhD Position 2: The applicants should have a MSc degree in civil engineering / mechanical engineering with MSc thesis written with a focus on either tunnelling or construction management or construction equipment. Candidates must be the permanent faculties at WRC of IoE, TU and preferably should be under the age of 45 years. The candidate must commit to return to WRC and work there for at least 5 years at WRC after the completion of PhD research.
In addition, the applicant 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 candidate does not have letter grades from previous studies, the candidate must document that he/she has a score higher than 78 percent at the Master level study. If the candidate is unable to meet above academic criteria, the candidate may be considered for the position only if documentation is made 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 scholarship.

- Candidate should document that he/she are fluent in English both spoken and written
- Candidate should also submit a about two pages research proposal in the issue of research
- Candidate should also include a commitment letter which guarantees that the candidate will actively contribute in 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

Personal characteristics

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

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.

The period of employment is 4 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.

It is a prerequisite that the candidate works at department premises and reports to the supervisor and is 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 Language.

Publications and other scientific work must follow the application which also should be in English. 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:

- 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 two 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.

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.

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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 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.

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 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.

Please submit your application electronically via jobbnorge.no with your CV, diplomas and certificates. Applications submitted elsewhere will not be considered.

If you are invited for interview you must include certified copies of transcripts and reference letters. Please refer to the application number IV-184/21 when applying.

Application deadline: 15.08.2021.

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 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.

Jobbnorge-ID: 208907, Søknadsfrist: Avsluttet