

Jobbnorge ID: 263410
Deadline: 8/9/2024
Website: <http://www.uis.no/>
Scope: Fulltime
Duration: Fixed Term

PhD Fellowship in Petroleum Technology

Job description

The University of Stavanger invites applicants for a PhD Fellowship in Petroleum Technology at the Faculty of Science and Technology, Department of Energy and Petroleum Engineering. The position is vacant from 15.09.2024 and the starting date is no later than 01.02.2025.

This is a trainee position that will give promising researchers an opportunity for academic development through a PhD education leading to a doctoral degree.

The hired candidate will be admitted to the PhD program in Science and Technology. The education includes relevant courses amounting to about six months of study, a dissertation based on independent research, participation in national and international research environments, relevant academic communication, a trial lecture and public defence. Read more about the PhD education at UiS on [our website](#).

The appointment is for three years with research duties exclusively.

The position is funded by The Research Council of Norway through KPN WellFate.

Research topic

The PhD Fellow will be affiliated with the following project: Understanding Fluid Migration Processes at Offshore Well Sites.

When wells reach the end of their life-cycle, they are permanently plugged and abandoned. When all the wellbores present in a field are permanently plugged and abandoned, decommissioning takes place, and the area is delivered back to the relevant authorities. The main goal of well abandonment is to seal all the identified formations which contain fluid with barriers. In this project, we aim to understand the processes of fluid migration near wells, which is crucial to achieving sustainability of marine resources from the Norwegian continental shelf (NCS), particularly when planning to repurpose depleted reservoirs for carbon storage. The project is conducted by a large research consortium which takes a multidisciplinary approach. Key activities are; characterization of leaky well sites by integrating direct seafloor observations, geophysical, geochemical, and geological data with well configuration and P&A data. This strategy will allow us to interpret fluid migration pathways confidently, define the origin of the fluids, date the onset of leakage, and relate the system's dynamics with well configuration and geology to identify critical wells and predict possible leakage locations with the help of state-of-the-art fluid flow simulations. Ultimately, the project results can be used to develop guidelines and best practices to optimize well abandonment and decommissioning protocols.

In this PhD project, we aim to relate the multidisciplinary observations with well configuration and plug designs to understand the risk of leakage from the source through the overburden and to the surface at each site. Some of the main research questions to be addressed by the PhD candidate are as following:

- What factors present the highest risk of leakage, and which wells and areas should be prioritized for monitoring?
- What mitigation procedures (from drilling to decommissioning) can be applied to minimize the impact of gas leakage at wells?
- When considering the P&A decommissioning design for hydrocarbon wells, can a depleted reservoir be re-purposed for safe CCS (carbon capture storage)?
- How shallow gas zones behave and what role do they play in understanding the leak picture?
- What can be learned from natural seeps?

Project proposal

As an applicant, you must prepare a preliminary project proposal for a doctoral project within the subject area, which explains the problem, relevance, theoretical and methodological approach. Your preliminary project proposal will be included in the application assessment.

During the first three months of the employment period, the project proposal and progress plan will be further developed in cooperation with your supervisors and completed for the final plan for the PhD-project. A project proposal template can be found [here](#).

The proposal must be a maximum of one page.

Qualification requirements

We are looking for applicants with a strong academic background who have completed a five-year master degree (3+2) within Petroleum Engineering or Chemical Engineering, preferably acquired recently; or who possess corresponding qualifications that could provide a basis for successfully completing a doctorate.

To be eligible for admission to the doctoral programmes at the University of Stavanger both the grade for your master's thesis and the weighted average grade of your master's degree must individually be equivalent to or better than a B grade. If you finish your education (masters degree) in the spring of 2024 you are also welcome to apply.

Applicants with an education from an institution with a different grade scale than A-F, and/or with other types of credits than sp/ECTS, must attach a confirmed conversion scale that shows how the grades can be compared with the Norwegian A-F scale and a Diploma Supplement or similar that explains the scope of the subjects that are included in the education. [You can use these conversion scales to calculate your points for admission.](#)

Emphasis is also placed on your:

- drilling engineering knowledge and/or experience,
- well abandonment knowledge and or experience,
- motivation and potential for research within the field
- professional and personal skills for completing the doctoral degree within the timeframe
- ability to work independently and in a team, be innovative and creative
- ability to work structured and handle a heavy workload
- having a good command of both oral and written English

Requirements for competence in English

A good proficiency in English is required for anyone attending the PhD program. International applicants must document this with a valid test certificate from one of the following tests:

- TOEFL - Test of English as a Foreign Language, Internet-Based Test (IBT). Minimum result: 90
- IELTS - International English Language Testing Service. Minimum result: 6.5
- Certificate in Advanced English (CAE) or Certificate of Proficiency in English (CPE) from the University of Cambridge
- PTE Academic - Pearson Test of English Academic. Minimum result: 62

The following applicants are exempt from the above requirements:

- Applicants with one year of completed university studies in Australia, Canada, Ireland, New Zealand, United Kingdom, USA
- Applicants with an International Baccalaureate (IB) diploma
- Applicants with a completed master's degrees taught in English in a EU/EEA country
- Applicants who are exempt based on HK-dir's [GSU list](#)

We offer

- a PhD education in a large, exciting and societally important organisation
- an ambitious work community which is developing rapidly. We strive to include employees at all levels in strategic decisions and promote an informal atmosphere with a flat organisational structure.
- access to [Lifekeys](#), a digital service for the preservation of personal mental health and well-being
- salary in accordance with the State Salary Scale, l.pl 17.515, code 1017, NOK 532 200 gross per year with salary development according to seniority in the position. In special cases a higher salary may be considered. From the salary, 2% is deducted as a contribution to the Norwegian Public Service Pension Fund.
- automatic membership in the [Norwegian Public Service Pension Fund](#), which provides favourable insurance- and retirement benefits
- favourable membership terms at a gym and at the [SIS sports club](#) at campus
- employment with an Inclusive Workplace organisation which is committed to reducing sick leave, increasing the proportion of employees with reduced working capacity, and increasing the number of professionally active seniors
- "[Hjem-jobb-hjem](#)" discounted public transport to and from work
- as an employee in Norway, you will have access to an optimal health service, as well as good pensions, generous maternity/paternity leave, and a competitive salary. Nursery places are guaranteed and reasonably priced
- relocation programme

Diversity

Diversity is a resource in the working and learning environment at UiS. When we have different backgrounds and experiences, we can approach challenges from multiple perspectives and find better solutions.

At UiS, we are committed to showing respect for each other's differences and accommodating employees with disabilities. We take into consideration your needs and your situation in various life phases.

If you find this position interesting, we encourage you to apply, regardless of gender, disability, cultural background, or whether you have been out of the workforce for a period.

If there are qualified applicants with disabilities, gaps in their CV, or immigrant backgrounds, we will invite at least one applicant from each of these groups for an interview. If you fall into any of these categories, feel free to indicate it when applying for the position.

Learn more about the criteria for being considered an applicant in these specific groups [here](#).

The university aims to recruit more women within the subject area. If several applicants are considered to have equal qualifications, female applicants will be given priority.

Contact information

More information on the position (and project description) can be obtained from from Head of Department Øystein Arild, tel: +4747672710, e-mail: oystein.arild@uis.no or Professor Mahmoud Khalifeh, tel: +4751832130, e-mail: mahmoud.khalifeh@uis.no.

Application

To apply for this position please follow the link "Apply for this job". Your application letter, relevant education and work experience as well as language skills must be registered here. In your application letter, you must state your research interests and motivation for the position.

The following documents must be uploaded as attachments to your application:

- project proposal, a project proposal template [can be found here](#). The template can be changed/modified if necessary.
- CV with a full summary of your education and experience
- references, certificates/diplomas and other documentation that you consider relevant
- Diploma Supplement or similar and a confirmed conversion scale if this is required
- documentation on competence in English if this is required
- publications or other relevant research work
- MSc thesis. For those who will finish in Spring 2024, an abstract presenting the scope of the work of thesis, minimum 1000 words, is required.

Applications are evaluated based on the information available in Jobbnorge at the application deadline. You should ensure that your application shows clearly how your skills and experience meet the criteria which are set out above and that you have attached the necessary documentation.

The documentation must be available in either a Scandinavian language or in English. If the total size of the attachments exceeds 30 MB, they must be compressed before upload.

Please note that information on applicants may be published even if the applicant has requested not to be included in the official list of applicants - see [Section 25 of the Freedom of Information Act](#). If your request is not granted, you will be notified.

UiS only considers applications and attachments registered in Jobbnorge.

General information

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. If your application is considered to be in conflict with the criteria in the latter legislation and if it is considered that you will not be able to start in the position within the date stated above, your application will be rejected without further assessment.

Employment as PhD Fellow is regulated in "[Regulations concerning terms and conditions of employment for the posts of post-doctoral research fellow and research fellow, research assistant and resident](#)".

Your qualifications for the position, based on documentation registered in Jobbnorge, will be assessed by an internal expert committee. Based on the committee's statement, relevant applicants will be invited to an interview before any recommendations are made. References will also be obtained for relevant candidates. [More about the hiring process on our website](#).

The appointee will be based at the University of Stavanger, with the exception of a stay abroad at a relevant centre of research.

It is a prerequisite that you have a residence which enables you to be present at/available to the academic community during ordinary working hours.

The position has been announced in both Norwegian and English. In the case of differences of meaning between the texts, the English text takes precedence.

UiS - challenge the well-known and explore the unknown

The University of Stavanger (UiS) has about 12,000 students and 2,200 employees. The university has high ambitions. We strive to have an innovative and international profile, and be a driving force in knowledge development and in the process of societal change. Our common direction is driven by consideration for green and sustainable change and equitable social development, through new ways of managing natural resources and facilitating better cities and local communities. Energy, health and welfare, learning for life are our focus areas.

In constant collaboration and dialogue with our surroundings, regionally, nationally and internationally, we enjoy an open and creative climate for education, research, innovation, dissemination and museum activities. Academic life at the University of Stavanger is organised into six faculties comprising various departments/schools and National Research Centres, as well as the Museum of Archaeology. We are a member of the European Consortium of Innovative Universities. The university is located in the most attractive region in the country with more than 300,000 inhabitants. The Stavanger region has a dynamic labour market and exciting cultural and leisure activities.

Together with our staff and students we will challenge the well-known and explore the unknown.

The Faculty of Science and Technology offers study programs at bachelor, master and doctoral level. The faculty has established close cooperation on research with NORCE (Norwegian Research Centre AS) and the regional industry. A number of master's and doctoral theses are made in collaboration with the industry. The faculty has established research collaborations with universities in the US and Europe, and has developed several academic environments that are at the forefront internationally. The faculty has about 2,800 students and approximately 500 employees at the Department of Electrical Engineering and Computer Science, Department of Structural Engineering and Materials Science, Department of Mathematics and Physics, Department of Energy and Petroleum Engineering, Department of Energy Resources and the Department of Safety, Economics and Planning.

Department of Energy and Petroleum Engineering carries out research and offers study programs at all levels in Drilling Technology, Natural Gas Technology, Petroleum Engineering and Energy Technology. The department has established close research collaboration with relevant

industry - especially in the petroleum and battery sector. The department focuses on internationalization, with the development of English study programs and high mobility among academic staff and students. There are currently 60 employees including research fellows and postdocs.

Additional information

Contact persons:

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Place of service:

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