

Jobbnorge ID: 203100
Deadline: 5/20/2021
Website: <http://www.uis.no/>
Scope: Fulltime
Duration: Fixed Term

Postdoctoral Fellow in Petroleum Technology

Job description

The University of Stavanger invites applicants for a position as Postdoctoral Fellow in Petroleum Technology at the Faculty of Science and Technology, Department of Energy and Petroleum Engineering.

The position is vacant from August 2021.

The objective of the position is to strengthen research, and to give researchers/scholars holding a doctoral degree the opportunity for further qualification toward top academic positions.

Postdoctoral Fellow is employed for a period of 2 years.

The Postdoctoral Fellow will be affiliated with the following project "Sealing ability and gas tightness of different barrier materials".

The position is funded by SFI SWIPA (Centre for Subsurface Well Integrity, Plugging and abandonment), which is financed by Equinor, Wintershall Dea, and the Research Council of Norway.

The project is in collaboration with SINTEF and will be carried out at the University of Stavanger. It is assumed that the appointee will work full time on the project and that she/he will participate in the academic community.

Information about the project:

Performance of sealing materials should be investigated to fulfill requirements if placed inside casing or in annular space between casing and formation. Most researchers have been studying sealing capability of barrier materials in short-term, up to 28 days. However, long-term performance of barrier materials may differ from the short-term performance.

There key research questions in this project are:

- What is the impact of rock mineralogy on sealability of barrier material in short-term (28 days) and long-term (3-month and 6-month)?
- The time effect on sealing performance on interfaces of barrier elements (i.e., casing and barrier material)?
- How to improve the sealing capability of combined barrier elements?

The postdoctoral project can address the research questions through the following sub-objectives:

- Development of a reliable and relevant testing procedure and/or testing equipment.
- Test performance of candidate barrier materials in long term (up to 6-month) by looking at compressive strength, tensile strength, permeability and microstructure (the latter by use of XRD and SEM).
- Testing of hydraulic sealability of barrier materials inside mill varnished and rusted casing steel, up to 6-month period.
- Potential utilization of X-ray and neutron tomography to map the interface of barrier materials and casing types (mill varnished and rusted steel).
- Modeling and mapping of possible microannuli by X-ray and neutron technique.
- Connecting the results to tests to be carried out at SINTEF.

It is expected that the results achieved in this project can be published in at least two scientific journals.

Project proposal

You must submit a description and plan for completion of the research project. The project proposal must show how you will proceed to carry out the research work, what the key issues and hypotheses will be, what theories and methods you will apply, publication channels and a schedule for carrying out the work. It must be clear from the application in what way the project will add your competence. The project proposal will be included in the competence assessment.

The final project description and progress plan are drawn up in consultation with the supervisor (s) during the first three months of the employment period. It is a prerequisite that you complete the project during the employment period.

Qualification requirements

You must have a ph.d. with a specialisation relevant for the project. A specialisation within petroleum engineering, chemistry, chemical engineering, material science, physics or mechanics will be preferred, or well integrity will be preferred, but applicants specialising in related

areas will also be considered. The ph.d. thesis must have been submitted for evaluation within the application deadline for the position and approved before accession.

Having authored or co-authored publication(s) in international conferences or journals and having background either in chemistry, well cementing, laboratory activities., material science is considered an advantage.

You must have good command of both oral and written English.

In the assessment the following criteria will be emphasised:

- relevance, quality and feasibility of the project
- submitted scientific work and your personal skills for completing the project within the timeframe
- international experience and network
- qualifications within the areas of creativity, innovation and commercialisation of research
- good teamwork, communication skills and ability to participate in research communities across organisational units
- ability to work independently in a structured manner
- motivation, sense of responsibility and accountability, work capacity and enthusiasm for research

We offer

- varied duties in a large, exciting and socially 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
- salary in accordance with the State Salary Scale, l.pl 17.510, code 1352, NOK 530.000 - 590.000 gross per year. A higher salary may be considered in special cases. 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 university sports club, [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](#)
- [language courses](#): On this page you can see which language courses you may be entitled to (look up "language courses" under employment conditions)

Diversity

University of Stavanger values independence, involvement and innovation. Diversity is respected and considered a resource in our work and learning environment. Universal design characterises physical and digital learning environments, and we strive to provide reasonable adjustments for employees with disabilities.

You are encouraged to apply regardless of gender, disability or cultural background.

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 can be obtained from Associate Professor Mahmoud Khalifeh, tel: +47 51832130, e-mail: Mahmoud.khalifeh@uis.no or Head of Department Øystein Arild, tel: +47 47672710, e-mail: oystein.arild@uis.no.

Information about the appointment procedure can be obtained from HR advisor Margot A.Treen, tel: +47 51831419, e-mail: rekruttering@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 the 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
- CV with a full summary of your education and experience
- documentation of approved ph.d. If you have not completed the ph.d., you may enclose a confirmation from the institution on the expected date of obtaining the doctoral degree.
- complete list of academic publications with information on where they are published
- up to 5 publications, including your ph.d. thesis or published monograph based upon the thesis
- transcripts and certificates, and other documentation that you consider relevant

Applications are evaluated based on the information available in Jobbnorge 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 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. 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 UiS.

Employment as Postdoctoral 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.](#)

UiS has an Acquisition of Rights Agreement for the purpose of securing rights to intellectual property created by its employees, including research results.

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 1,900 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 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 academic environments that are at the forefront internationally. These include Petroleum and Offshore Technology as well as Risk Management and Societal Safety, which constitute two of the university's strategic focus areas. The faculty has about 2,800 students and approximately 400 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 the Norwegian Research Centre AS (NORCE) and the oil industry. The department focuses on internationalization, with development of English lingual study programs and high mobility among academic staff and students. There are currently 90 employees including research fellows and postdocs, and 750 students at the department.

Additional information

Place of service:

Ullandhaug 4036 Stavanger (Stavanger Municipality)