

**Jobbnorge ID:** 289689  
**Deadline:** 1/15/2026  
**Website:** <http://www.uis.no/>  
**Scope:** Fulltime  
**Duration:** Fixed Term

## PhD Fellowship in molecular modelling and machine learning for improved subsurface utilization

### Job description

The University of Stavanger invites applicants for a PhD Fellowship in in molecular modelling and machine learning for improved subsurface utilization, at the Faculty of Science and Technology, Department of Mathematics and Physics.

The position is affiliated with the [National Centre for Sustainable Subsurface Utilization of the Norwegian Continental Shelf](#) (NCS2030).

These are trainee positions that will give promising researchers an opportunity for academic development through a PhD education leading to a doctoral degree.

The hired candidates 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.

A career plan will be prepared that specifies the competencies that the Research Fellow will acquire. Access to career guidance will be provided throughout the doctoral education.

The position is funded by the NCS2030 research centre which is funded by the Norwegian Research Council, 8 user industry partners and 4 academic and research institutions.

More details on the centre research activities [here](#).

### Research topic

This project aims to elucidate how modified brines ("Smart Water") alter liquid-liquid and liquid-solid interfacial behaviour in low permeable porous media. Wettability and capillary forces depend non-linearly on mineral surface chemistry, brine composition, and the distribution of ions and impurities in the interfacial region. Because these interactions arise from specific ion-surface interactions, predictive insight requires advanced models on atomic-scale resolution. The case of study will be selected from tight petroleum reservoirs on the Norwegian continental shelf. Development strategies should be proposed and tested, accounting for determinant conditions such as low permeability and the interplay with rock-fluid properties and chemistry.

### Project proposal

As an applicant, given the broad scope of the centre and the project topics, you must prepare a project proposal for a doctoral project within one of the subject areas, which explains the problem, relevance, theoretical, and methodological approach. Your project proposal should be included in the application assessment. The proposal should not exceed 2 pages. Please specify in which topic you are interested. In the case that you apply for more than one topic, please submit a dedicated project proposal for each. We highly value original initiatives.

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 of the PhD project A project proposal template can be found [here](#).

### Qualification requirements

We are looking for applicants with a strong academic background who have completed a five-year master degree within molecular modelling, statistical physics, or machine learning, preferably acquired recently; or possess corresponding qualifications that could provide a basis for successfully completing a doctorate.

Applicants that additionally have competence within computational physics/chemistry, geosciences, reservoir engineering or modelling will be preferred.

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 (master's degree) in the spring of 2026, 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:

- 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 541 800 gross per year with salary development according to seniority in the position. 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.

## 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, please specify in which of the four topics you are interested in, 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](#).
- 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

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, 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. 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, and the Department of Safety, Economics and Planning.

**Department of Mathematics and Physics** is part of the Faculty of Science and Technology. The department offers study programs at all levels within the areas Mathematics, Statistics and Physics. The department is responsible for all basic tuition in mathematics, physics and statistics at the faculty. There are currently 50 employees including doctoral and postdoctoral fellows, and 100 students at the department.

## Additional information

### Contact persons:

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### Place of service:

