



# PhD position in Oil-water bulk separation for oil & gas applications - IV-202/19

## About the position

We have a vacancy for a 3-year PhD fellowship at the Department of Geoscience and Petroleum (IGP).

The PhD project is part of the SUBPRO center which is a large 8-year research-based innovation program in the field of subsea processing and production. Industrial partners in SUBPRO include Equinor, Lundin, AkerBP, Neptune Energy Norge, Aker Solutions, DNVGL and Kongsberg Digital. For more information about SUBPRO, visit our website: [www.ntnu.edu/subpro](http://www.ntnu.edu/subpro).

The main objective of this project is to study experimentally and numerically bulk oil-water separation in a parallel pipe separator for subsea applications. Compact seabed oil-water separation is a key technology that could enable, increase and prolong production from offshore oil and gas fields, increase energy efficiency and reduce cost.

The position reports to the Head of Department.

## Main duties and responsibilities

- The PhD project will further advance in the improvement, study and numerical prediction of a separation technology developed during a previous PhD project, using existing experimental facilities.
- Some topics of interest in the research are: to evaluate experimentally the effect of surfactants, inlet choking and presence of gas (air) on separation performance, characterization of the droplet distribution along the separator, experimental and numerical study of uneven flow splitting between branches.
- Part of the work involves development of numerical models to match experimental measurements and with the final goal to perform separator pre-design.

## Qualification requirements

The PhD-position's main objective is to qualify for work in research positions. The qualification requirement is completion of a master's degree or second degree (equivalent to 120 credits) with a strong academic background in engineering or equivalent education with a grade of B or better in terms of [NTNU's grading scale](#). Applicants with no letter grades from previous studies must have an equally good academic foundation. Applicants who are unable to meet these criteria may be considered only if they can document that they are particularly suitable candidates for education leading to a PhD degree.

The appointment is to be made in accordance with the regulations in force concerning State Employees and Civil Servants and [national guidelines for appointment as PhD, postdoctor and research assistant](#)

NTNU is committed to following evaluation criteria for research quality according to [The San Francisco Declaration on Research Assessment - DORA](#).

Other qualifications

- The candidate should have solid and relevant background in engineering, e.g. mechanical, chemical, petroleum, process engineering.
- It is an advantage if the candidate possesses experience with experimental work e.g. logging and processing sensor data, setting up and using data acquisition systems, sensor calibration, measurement of physical properties, operation of pumps and valves, mounting and dismantling of equipment.
- An interest in mathematics and modeling is important.
- It is an advantage if the candidate has some previous knowledge on multiphase flow.
- Proficiency in written and oral English language skills.

## Personal characteristics

- A high level of personal responsibility and initiative.
- Work independently as well as part of a team in accordance with the project objectives.

In the evaluation of which candidate is best qualified, emphasis will be placed on education, experience and personal suitability, as well as motivation, in terms of the qualification requirements specified in the advertisement

## We offer

- exciting and stimulating tasks in a strong international academic environment
- an open and [inclusive work environment](#) with dedicated colleagues
- favourable terms in the [Norwegian Public Service Pension Fund](#)
- [employee benefits](#)

## Salary and conditions

PhD candidates are remunerated in code 1017, and are normally remunerated at gross from NOK 479 600 before tax per year. From the salary, 2 % is deducted as a contribution to the Norwegian Public Service Pension Fund. Note: Preliminary table subject to approval by the Storting.

The period of employment is 3 years without required duties. Appointment to a PhD position requires admission to the PhD programme in engineering (<https://www.ntnu.edu/iv/doctoral-programme>).

As a PhD candidate, you undertake to participate in an organized PhD programme during the employment period. A condition of appointment is that you are in fact qualified for admission to the PhD programme within three months.

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 criterias in the latter law will be prohibited from recruitment to NTNU. After the appointment you must assume that there may be changes in the area of work.

## General information

A good work environment is characterized by diversity. We encourage qualified candidates to apply, regardless of their gender, functional capacity or cultural background. Under the Freedom of Information Act (offentleglova), information about the applicant may be made public even if the applicant has requested not to have their name entered on the list of applicants.

Questions about the position can be directed to Associate Professor Milan Stanko, e-mail: [milan.stanko@ntnu.no](mailto:milan.stanko@ntnu.no).

About the application:

Publications and other academic works that the applicant would like to be considered in the evaluation must accompany the application. Joint works will be considered. If it is difficult to identify the individual applicant's contribution to joint works, the applicant must include a brief description of his or her contribution.

Please submit your application electronically via [jobbno.no](http://jobbno.no) with your CV, diplomas and certificates. Applicants invited for interview must include certified copies of transcripts and reference letters. Please refer to the application number 202/19 when applying.

**Application deadline: 15.08.2019**

## 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](#).

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