Jobbnorge-ID: 98433
Søknadsfrist: Avsluttet
Nettside:
Omfang:
Varighet:

New PhD Position on "Turbulence structure and particle transport in particle loaded non-Newtonian Fluids"

The Faculty of Engineering Science and Technology (IVT) at the Norwegian University Science and Technology (NTNU) announces a vacant PhD position in the field of turbulent particle laden non-Newtonian flows. The project entitled "**Advanced Wellbore Transport modeling - Knowledge building for the petroleum industry**" is financed by the Research Council of Norway and several oil companies, and is a close collaboration between IRIS and UiS in Stavanger and NTNU and SINTEF in Trondheim. The position is for 3 years.

The position requires a Master's degree or similar within either physics, mathematics, material science and engineering, or mechanical/structural engineering. The applicants must be qualified for the doctoral program within any of these disciplines. The successful applicants are motivated and ambitious students with excellent grades. Proficiency to carry out goal-oriented work, good skills to deliver oral and written presentation of research results, and good cooperation abilities will be emphasized.

The position is administrated at the Department of Energy and Process Engineering, IVT Faculty. At present, the Department of Energy and Process Engineering has 12 technical/administrative employees, 33 Professors, 10 Associate Professors, 11 Adjunct Professors, 2 Adjunct Associate Professors, 30 researcher/postdocs and about 80 PhD students.

In the PhD work direct numerical simulations and turbulence modeling will be used in order to understand and predict the turbulence structure in non-Newtonian flows. The particle flow, including the cuttings bed motion, will be investigated by a particle-in-cell method, in combination with a discrete particle element model. Based on a fundamental understanding of the physics the candidate will develop simplified flow models, appropriate for the pressure drop and cuttings transport in 1D flow models. These models will describe the flow both in drill-pipe and annulus, including drill-pipe rotation and eccentricity. Experimental data will be obtained from other activities in the projects, from literature and from own experiments.
The work is very challenging. Therefore the candidate should have a strong background in one or several areas like physics, mathematics, numerics, computational methods or mechanical engineering.
The candidate will work as part of a larger project team where experimental results, theory and practical modeling are iterated.

Interested applicants are encouraged to contact
Professor II Stein Tore Johansen, stein.t.johansen@sintef.no, +47 926 05 241
Senior scientist Ernet Meese, SINTEF, ernst.a.meese@sintef.no, +47 982 83 898

PhD Candidates are remunerated in code 1017, and are normally remunerated at wage level 50, gross NOK 420 800 before tax. The salary is adjusted according to the recent wage negotiations, and given subject to the final approval of the Storting (the Norwegian Parliament). There will be a 2 % deduction for superannuation.

The period of appointment is up to three years. Engagement as a PhD Candidate is done in accordance with "Regulation concerning terms and conditions of employment for the posts of post-doctoral research fellow, research fellow, research assistant and resident", given by the Ministry of Education and Research of 19.07.2010. The goal of each of the announced positions is to obtain a PhD degree. Applicants will engage in an organized PhD training program, and appointment requires approval of the applicants plan for a PhD study within three months from the date of commencement. See http://www.ntnu.edu/ivt/phd for more information.

Applicants must agree to participate in organized doctoral study programs within the period of the appointment and have to be qualified for the PhD-study. A contract will be drawn up regarding the period of appointment and work related duties.

The engagement is to be made in accordance with the regulations in force concerning State Employees and Civil Servants. The positions adhere to the Norwegian Government's policy of balanced ethnicity, age and gender. According to the new Freedom of Information Act, information concerning the applicant may be made public even if the applicant has requested not to be included in the list of applicants.

Applications with CV, possible publications and other scientific works, certified copies of transcripts and reference letters should be submitted electronically via this page.

Mark your application with **ref.no. IVT-127/13** and specify which position you are interested in.

Application deadline: 20.12.2013.

Tilleggsinformasjon

Arbeidssted: