

## Kunnskap for en bedre verden

Jobbnorge-ID: 93375 Søknadsfrist: Avsluttet

Nettside: Omfang: Varighet:

# Post doc. in Condition Assessment of Subsea Power Connectors and Phd scholarship in Controller Performance Monitoring

The <u>Department of Electric Power Engineering</u> and the <u>Department of Engineering Cybernetics</u> at the <u>Faculty of Information Technology,</u> <u>mathematics and Electrical Engineering</u> of the <u>Norwegian University of Science and Technology (NTNU</u>), invite applications a postdoctoral position and a PhD scholarship position, respectively. Both positions are funded through the Siemens - NTNU framework project within offshore oil and gas.

#### Post doc. in Condition Assessment of Subsea Power Connectors

The Electric Power Engineering Department has a vacant Post doc. position within "condition assessment of subsea power connectors". The appointment is made for up to 3 years.

Subsea power connectors are considered one of the most critical components in a subsea electric power grid. When increasing the system voltage and power rating it becomes increasingly important to apply condition based maintenance procedures. Thus the apparatus need to be prepared for application of diagnostic methodologies, allowing the serviceability to be estimated.

The main task of the Post Doc. position will be to identify measurable parameters describing the degree of ageing of subsea power connectors. The work will in general be of both theoretical and experimental character.

The applicant should have a Ph.D. within electrical engineering or physics.

The post doctoral position is remunerated according to wage levels 57 - 77 on Norwegian State salary scale, with gross salary from NOK 468 100 to NOK 688 900 a year, of which 2 % is deducted for the State Pension scheme.

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#### PhD scholarship in Controller Performance Monitoring

The Engineering Cybernetics Department has an opening for a PhD scholarship in the area of Controller Performance Monitoring. The scholarship is for four years.

Control systems for large plants are themselves large-scale systems, and automated techniques are essential for monitoring and fault detection (as opposed to monitoring and fault detection of the controlled plant). The PhD student will investigate the use of adaptive data analysis techniques for root cause detection of distributed oscillations in large plants.

The ideal candidate will have obtained a strong Master's degree in Engineering Cybernetics / Control

Engineering, preferably specializing in identification, state estimation, or fault detection. Alternatively, candidates with a strong background in signal processing or statistics may be considered. For candidates with such alternative backgrounds, familiarity with time series analysis including higher order spectral analysis is preferred, and some knowledge of feedback control is required. Candidates should have strong communication and cooperation skills.

Foreign applicants must document proficiency in English with an IELTS score of 6.5 (or equivalent).

Applicants from universities outside Norway are kindly requested to send a diploma supplement or a similar document, which describes in detail the study and grading system and the rights for further studies associated with the obtained degree: http://ec.europa.eu/education/policies/rec\_qual/recognition/diploma\_en.html

See http://www.ntnu.edu/ime/research/phd for more information about PhD studies at our Faculty.

The appointment will be made in accordance with current regulations with supplementary rules for research fellowship appointments in universities and polytechnics. Applicants must agree to participate in organised doctoral study programs within the period of the appointment. The successful applicant must agree to the conditions laid down for public employees. A contract will be drawn up regarding the period of appointment and work-related duties for award holders.

The PhD Scholarship position is remunerated according to wage levels 50 - 62 on Norwegian State salary scale, with gross salary from NOK 416 300 to NOK 512 7000 a year, of which 2 % is deducted for the State Pension scheme. Most PhD candidates start in the lower end of this salary scale, the higher end of the scale is used only in exceptional circumstances.

For further information about the scholarship, please contact Professor Morten Hovd, e-mail: <a href="mailto:Morten.Hovd@itk.ntnu.no">Morten.Hovd@itk.ntnu.no</a>.

### For both positions:

The national labour force must reflect the composition of the population to the greatest possible extent. It is therefore a major political objective to achieve a balance of gender and to recruit persons with an immigrant background. Immigrants are encouraged to apply for this post. NTNU wants to increase the proportion of women in its scientific posts. Women are encouraged to apply. The successful applicant must agree to the conditions laid down for public employees.

The application must contain information about education, examinations and previous experience. Certified copies of certificates and documents must be attached.

Copies of publications and any other work which the applicant wishes to be taken into account should also be enclosed. Joint works will be considered. If it is difficult to specify the input of the applicant in a joint work, a short summary should be attached outlining the applicant's input. In the selection of the candidates, particular emphasis will be put on scientific merits (publications, patents, etc).

Applications, inclusive CV, grade transcripts and other enclosures should be sent electronically through www.jobbnorge.no.

Applications for the Post doctoral position should be marked: Ref. IME-029/2013.

Applications for the PhD-position should be marked: Ref. IME-030/2013.

Application deadline: 2013-05-15.

Tilleggsinformasjon

Arbeidssted: