

This is Western Norway University of Applied Sciences

On January 1st, 2017, Bergen University College, Sogn og Fjordane University College and Stord/Haugesund University College merged to form Western Norway University of Applied Sciences.

With about 16,000 students, is one of the largest higher education institutions in Norway. A broad range of academic programmes are offered at Bachelor, Master and PhD levels.

Our ambition is to build stronger and more solid academic and research environments that will interact nationally and internationally. The aim is to become a recognized actor on the international higher education arena. Increased international cooperation and engagement in externally funded projects will work towards this goal.

The Department of Mechanical and Marine Engineering at Western Norway University of Applied Sciences HVL, Campus Bergen, has a vacancy for a research fellow (PhD position) related to condition monitoring and assessment of critical infrastructures, for a period of 4 years.

The PhD research fellow will be part of the PhD programme in Computer Science: Software Engineering, Sensor Networks and Engineering Computing (<http://ict.hvl.no>). The research programme in computer science currently includes 20 professors and associate professors, 25 PhD and post-doctoral research fellows, and a large number of master's students.

PhD research fellow in Cyber -Physical Systems

About the PhD Project

The candidate will work on the project supported jointly by the Department of Mechanical and Marine Engineering and the Department of Electrical Engineering, entitled "Improvement in Condition Management of Industrial Processes using Biomimicry". The project aims to develop conceptual, theoretical and numerical models for acquisition, collection, rationalization, processing and interpretation of data from sensors to decision making for asset integrity management of critical infrastructures using the concepts of biomimicry (an approach to solving industrial challenges by studying similar cases in nature and emulating bio-organisms responses). The project would thus try to take inspiration from nature to solve the challenges of cyber-physical systems.

Part of the project will involve implementation of Industry 4.0 concepts encompassing sensor networks, Big Data, artificial intelligence for optimised inspection-maintenance of critical infrastructures.

Research Environment

The computer science research environment at HVL (<http://ict.hvl.no>) has a strong focus on use-inspired and applied research, and on ICT as an enabling technology. The research environment has cooperation with many national and international research groups, and with national and regional industry partners. The programme includes the research themes of software engineering, engineering computing, communication systems and sensor networks, grid computing and physics data analysis, machine learning, and interactive and collaborative systems. The prospective PhD candidate will work in the intersection of the research group in sensor networks and the research undertaken in condition monitoring, condition assessment and decision support systems.

Qualifications:

The PhD research fellow must have a master's degree in one of the following areas: communication technology, automation, electronics, cybernetics, robotics, mechatronics engineering, or in a closely related field. Candidates who have submitted a master's thesis (but who have not yet been awarded a master's degree) may also qualify for the position provided that the master's degree is awarded within 4 weeks after the application deadline.

The candidate should have a strong knowledge of computing in applied mathematics. Experience of working in a mechanical / materials / process industry will be considered an advantage when candidates are ranked. Knowledge in the area(s) of sensor networks, condition monitoring, technical asset integrity management, artificial intelligence is also considered beneficial.

In addition to the required educational background, the following criteria will be evaluated: competence and grades on completed course work, quality of the master's thesis (excellent grade, equivalent of grade B or better on the ECTS grading system), quality of publications, research and teaching experience, practical software engineering skills and experience.

The candidate must be diligent and display the ability to work independently, supplemented with regular guidance, and is expected to carry out high-quality research and to publish the results in international workshops, conferences, and journals.

The PhD research fellow must enrol in the PhD program in Computer Science: Software Engineering, Sensor Networks and Engineering Computing at Western Norway University of Applied Sciences, and must meet the formal admission requirements for admission into the PhD program. 25% of the 4-year period will be designated to duties such as teaching, development and administrative tasks. The employment period may be reduced if the successful applicant has held previous employment as a research fellow.

The PhD candidate will be assigned two academic supervisors at Western Norway University of Applied Sciences. An application for enrolment should first be submitted after an appointment is made and the supervisors will help with this procedure. The candidate must be enrolled as a

PhD student within 3 months from the start of the employment.

Application procedure:

To apply for this position, please use the link "Apply for this job" ("Søk stillingen").

The applications will be assessed by the information entered in www.jobbnorge.no at the application deadline. The applicants are responsible for ensuring that all the documentation is submitted before the closing date, including the scientific work (up to 15 pieces), complete publication list, certificates and diplomas. If the diplomas, transcripts or other documentation are not in a scandinavian language or English, the applicant must upload the certified translations himself. If the attachments exceed 15 MB, they must be compressed before uploading or attaching as a link.

The following documentation should be uploaded as an attachment to the online application:

- Master thesis
- Copies of selected academic publications (no more than 15)
- A CV with a complete list of academic publications
- Diplomas and certificates

The applications will be sent electronically to the expert committee. Based on the committee's recommendation, qualified applicants will be invited to an interview and an trial lecture. Applications cannot be sent by e-mail or to individuals at Western Norway University of Applied Sciences.

We offer:

- Good occupational pension, insurance and loan schemes from The Norwegian Public Service Pension Fund
- Exciting academic environment with the possibility of competence enhancement and development
- Opportunities for training within the working hours

Initial salaries will be offered at grade 51 (nok 449.400) (code 1017) in the Civil Service pay grade table scale.

There is a compulsory 2 % deduction to the pension fund (see <http://www.spk.no/en> for more information). The successful applicant must comply with the guidelines that apply to the position at any time.

General information:

The appointment will be made in accordance with the regulations for State employees Law in Norway ("Lov om statens ansatte"). Organizational changes and changes in the duties and responsibilities associated with the position must be expected.

State employment shall reflect the multiplicity of the population at large to the highest possible degree. Western Norway University of Applied Sciences Bergen has therefore adopted a personnel policy objective to ensure that we achieve a balanced age and gender composition and the recruitment of persons of various ethnic backgrounds.

Information about the applicant may be made public even though the applicant has requested not to be named in the list of applicants. The applicant will be notified if his/her request is not respected. Applicants may be called in for an interview.

Homepage

<http://www.hvl.no/> <http://ict.hvl.no/>

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