



Jobbnorge ID: 283199
Deadline: 8/1/2025
Website: <https://www.usn.no/>
Scope: Fulltime
Duration: Temporary

Faculty of Technology, Natural Sciences and Maritime Sciences have a vacancy for a position as

PhD Research Fellow in AI-Driven Maritime Border Security and Safety

About the position

The Faculty of Technology, Natural Sciences and Maritime Sciences has a vacancy for a 100% position as PhD Research Fellow in the Department of Microsystems from 01.10.2025.

The position is located at the Department of Microsystems and reports to the Head of Department. The place of employment is Raveien 215, Borre, Norway at Campus Vestfold.

The employment period will be three years of full time with no teaching obligations, and there is a premise for employment that the PhD Research Fellow is enrolled in USN's PhD-program in within three months of accession in the position.

About the PhD-project

Norway's maritime security environment is becoming increasingly complex due to changing geopolitical dynamics in the High North and the exploitation of maritime routes by transnational criminal networks. Incidents such as the 2023 Nordloire drug smuggling case have revealed critical vulnerabilities in current surveillance infrastructure, particularly in detecting concealed threats and non-conventional maritime operations.

A recent national report has underscored the urgent need for next-generation surveillance technologies that go beyond conventional rule-based and manual inspection systems. These challenges demand innovative, intelligent solutions capable of real-time anomaly detection, adaptive threat response, and autonomous monitoring. The selected PhD candidate will contribute to research in one or more of the following areas:

- Autonomous surveillance systems for maritime environments
- Intelligent anomaly detection in vessel behaviour and patterns
- Multi-sensor fusion and adaptive threat assessment
- AI-driven decision support for maritime situational awareness

The research will be aligned with three major European projects—SMAUG, SEAGUARD, and SAFARI—in which USN plays a central role. These projects aim to enhance maritime domain awareness through the development of autonomous systems and intelligent monitoring platforms.

Proficiency in any of the following areas will be a merit.

- Maritime surveillance, security and safety.
- Advanced AI methods based on LLMs, Mixture of Experts, and Agentic AI.
- Experience in ML development on Python.

Qualifications

Applicants to the PhD position must have a Master's degree (120 ECTS) equivalent higher education qualifications in computer science, AI, robotics, cybernetics, maritime technology, or related fields. The degree must be accomplished before application deadline.

Strong programming skills and experience with AI, LLMs, Mixture of Experts, Agentic AI, or embedded systems is an advantage.

Knowledge of maritime systems, autonomy, or sensor technology is a plus.

Excellent written and spoken English.

The candidate must have the ability to work independently and at the same time have the motivation to share knowledge and take part in teamwork. Personal suitability for the post will be emphasised.

It is a requirement that the successful applicant is granted admission to the university's doctoral programme in technology within three months of accession in the position. For admission to the Programme the weighted average grade is B or higher is usually required.

Co-operation between staff members is an integrated part of the working atmosphere at the University of South-Eastern Norway. The candidate must be motivated and demonstrate a proven ability to work effectively within a team and in a collegiate manner to formulate and realise common objectives.

Documentation of skills in English language

Strong communication skills in English language skills are required for participation in the doctoral program. International applicants must document this with a valid 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) eller Certificate of Proficiency in English (CPE) from Cambridge University
- 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, the United Kingdom, the United States
- applicants with a completed master's degree with English as the language of instruction in an EU/EEA country

We offer

- A stimulating and growing research environment, with good opportunities to develop your career and your academic skills
- A good social environment
- Attractive welfare benefits in the [State Pension Plan](#)
- Opportunity for physical activities within working hours

Salary

PhD Research Fellow (code 1017): NOK 550 800 a year. Further promotion will be based on time served in the position. In special cases, employment in code 1378 (NOK 546 569 - 685 728 a year) may be considered.

A statutory contribution to the state pension plan will be deducted from the employee's salary.

Other information

The Academic Appointments Board for PhD Research Fellowships is responsible for the appointment. An expert assessment of applicants will be carried out. The candidates deemed best qualified will be invited to an interview.

The person appointed must comply with the laws, regulations and agreements that apply at any given time to the post. Please note that an approved work permit is a prerequisite for the employment.

According to its human resources policy, the University of South-Eastern Norway targets a balanced gender composition and aims to recruit persons with a background as an immigrant.

The Department has few women appointed in scientific positions, and women are therefore particularly encouraged to apply.

The University contributes to the Inkluderingsdugnaden (a voluntary scheme to promote inclusion), and it is our aim that our employees, to the fullest extent possible, shall reflect the diversity of the general population. We therefore encourage qualified applicants with disabilities to apply for the post. The University will facilitate the workplace for employees with disabilities.

Pursuant to section 25, 2nd paragraph of the Freedom of Information Act, information on the applicant may be disclosed even if the applicant has requested not be included on the list of applicants. Applicants will be notified if such requests are not allowed.

Authorization and security clearance requirements

The position requires authorization and/or security clearance in accordance with the Security Act. Applicants must therefore provide information about their citizenship and, if applicable, the citizenship of their spouse/partner in the application. Citizenship must also be documented, for example, by attaching a copy of a passport.

Applicants who hold citizenship in countries considered to pose a particular security risk may be excluded from further consideration in the application process. The same applies to applicants whose spouse/partner holds citizenship in such countries. USN may also decide, in other cases, to invite applicants to a meeting with the authorization officer, based on a discretionary assessment. Such meetings may also result in exclusion from further consideration in the application process.

Contact information

For more information about the position, please contact:

- Associate Professor Youcef Djenouri (Main supervisor), youcef.djenouri@usn.no
- Director of Research Innovation Centre, Jon Herman Ulvensøen, jon.h.ulvensoen@usn.no
- Associate Professor Fabio Augusto de Alcantra Andrade, fabio.a.andrade@usn.no

For questions regarding the recruitment process, please contact:

Adviser Stine Knudseth, stine.knudseth@usn.no

How to apply

The University of South-Eastern Norway makes use of online application management. Applicants to the post must register their application and CV with enclosures online via the Jobbnorge recruitment portal by clicking on the link on the right-hand side - "Søk stillingen" (Apply for the post).

The following documents shall be attached to the online application:

- Transcripts and diplomas of Bachelor's and Master's Degrees (120 ECTS)
- Other relevant certificates
- A 1-page project description or motivation letter
- Documentation of English proficiency
- Any scientific publications and a list of these
- Three references (contact information)

Please note that all documents must be in a Scandinavian language or in English. Any translations must be certified.

If your higher education is from a university outside of Norway, we require it to be recognized by the Norwegian Directorate of Higher Education and Skills. [You must apply for the recognition before the application deadline for this position expires.](#) Add a receipt on your application or recognition when applying. The recognition must be sent to us and is a requirement for being hired.

The application will be assessed on the basis of the attached documentation as requested above. Each applicant is responsible for ensuring that the required documentation has been uploaded with the application deadline.

The University has been awarded a Charter & Code certificate by the European Commission, and is entitled to use the HR Excellence in Research (HRS4R) logo. The University is also a member of the EURAXESS network, which contributes to good working conditions for mobile researchers.

About us

The University of Southeastern Norway (USN) ranks as the country's fourth largest higher education institution. We are a vibrant community of approximately 18,000 students and 1,900 employees.

Video: <https://vimeo.com/898549899/60305e2540>

About USN

At USN you'll contribute to a mission that matters. The University of Southeastern Norway was established in 2018, following the merger of several smaller university colleges, some with historical roots dating back to the 17th and 18th centuries. We are committed to collaborative problem-solving, aiming to provide solutions that benefit our communities - locally as well as globally.

Our diverse campuses are located from the beautiful fjords to the snow-covered mountains. USN spans three Norwegian counties, with campuses in Bø, Drammen, Horten, Kongsberg, Notodden, Porsgrunn, Ringerike, and Rauland.

Wherever you're located, you will engage in meaningful work amidst a thriving student culture and innovative research environments. Our university offers a wide range of high-quality and internationally recognized academic programs. With a strong emphasis on profession-oriented and socially relevant education, we prepare our students for the workforce and equip them with the necessary skills to make a positive impact on society.

At USN, we deeply value and cultivate our relationships with local communities. Our staff and students are actively engaged in a variety of projects that address societal challenges, driving change and innovation. We place a strong emphasis on diversity, inclusion, and equal opportunity, and we strive to shape future leaders, innovators, and change-makers.

Read more about working for us: (link to) [Work for us - Universitetet i Sørøst-Norge](#)

Additional information

Contact persons:

- Youcef Djenouri, Associate Professor (Main Supervisor)
Phone: +47 35 02 63 52 | E-mail: youcef.djenouri@usn.no
- Jon Herman Ulvensøen, Director of Research Innovation Centre
Phone: | E-mail: jon.h.ulvensoen@usn.no
- Fabio Augusto de Alcantra Andrade, Associate Professor
Phone: | E-mail: fabio.a.andrade@usn.no

Place of service:

Raveien 215 3184 Borre (Horten Municipality)