



**Jobbnorge ID:** 279187

**Deadline:** 8/4/2025

**Website:** <https://www.usn.no/>

**Scope:** Fulltime

**Duration:** Temporary

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

## PhD Research Fellow in “Coordinated flexibility utilization across TSO and DSO grid levels”

### About the position

The Faculty of Technology, Natural Sciences and Maritime Sciences (TNM) has a vacancy for a temporary 100 % position as PhD Research Fellow in “Coordinated flexibility utilization across TSO and DSO grid levels” from September 1st, 2025. The position is a part of the FME SecurEL center, and it is funded by the Research Council of Norway.

The position is located at the Department of Electrical Engineering, Information Technology, and Cybernetics and reports to the Head of Department. The position will be working in the research group, “Electrical Power Systems” (EPS). The place of employment is Porsgrunn.

The employment period will be three years full time, and there is a premise for employment that the PhD Research Fellow is enrolled in USN's PhD-program in PhD in Technology within three months of accession in the position. It may be possible to get a four-year full-time period consisting of 75 % PhD Research Fellow and 25 % teaching duties.

### About SecurEL

SecurEL is a Centre for Environment-friendly Energy Research, facilitating a secure, resilient, and sustainable electricity distribution grid that ensures both the security of electricity supply and a path to a net-zero-emissions society. SecurEL aims to develop new knowledge addressing research challenges arising from accelerated electrification and increased use of the existing grid. Reaching these goals requires strong interdisciplinary collaboration among research institutions, user partners, and experts with diverse areas of expertise.

The Centre brings together experts from fields such as electrical engineering, energy systems, information and communication technology, cybersecurity, engineering cybernetics, industrial economics, as well as humanities and social sciences, to develop effective solutions for the power grid. SecurEL is a consortium of 42 partners, including 7 research partners. The centre period is 2025-2032, and the total budget is 398 million Norwegian kroner (NOK). USN is represented as a partner mainly by the Department of Electrical engineering, Information Technology and Cybernetics.

Recruitment and research education is an important part of the mission of SecurEL. The PhD candidates funded by the Centre will contribute with cutting-edge knowledge and research. Overall, the Centre will directly finance 17 PhD and postdoc positions, at NTNU - Norwegian University of Science and Technology, USN - University of South-Eastern Norway, and UniCA - university of Cagliari. There will also be several associated PhDs from closely related projects. As a SecurEL-funded PhD candidate, you will be employed by USN, a university partner in the Centre, and take active part in the research activities. Through the Centre, you will have access to a forum with other PhD candidates affiliated with the Centre, and opportunities for research stays with partners, both nationally and abroad, through its international network.

Read more about the Centre and its research at the website <https://www.securel.no>

### About the PhD-project

This PhD position “Coordinated flexibility utilisation across TSO and DSO grid levels” will be associated with Work Package 2 (WP2) on Grid operation and development in SecurEL. The overall objective for the PhD work is to improve the coordination of use of flexibility across grid levels for both the Transmission System Operator (TSO) and Distribution System Operators (DSOs) to efficiently utilise distributed energy resources, considering both the distribution and transmission grid levels. The work of the PhD candidate will be integrated with the ongoing work being carried out by the research partners in WP2. In the initial phase, the supervisors, the candidate (based on the candidate's profile), and research partners in SecurEL will work together to identify the comprehensive research questions to be addressed to meet the overall objective of the PhD work.

Some potential specific research objectives:

- Integration of distributed energy resources for congestion management.
- Analysis of flexibility value chains and market designs for flexibility procurement and activation aiming to provide ancillary services.
- Agreement and grid tariff-based flexibility for use across grid levels.
- Market-based flexibility for use across multiple grid levels.

## Qualifications

### Eligibility Requirements:

- A Master's degree equivalent to a Norwegian master's degree (120 ECTS).
- Documented proficiency in English (Nordic applicants may submit their high school diploma as proof).
- Ability to collaborate and work effectively in an international and interdisciplinary research environment.
- Applicants with a strong background in STEM fields (e.g., Electrical power engineering, control system engineering, Physics or environmental engineering, Mathematics (Operations research) or Computer Science or Machine Learning).
- The Master's thesis must be included in the application.

### Ideal Candidate:

- Demonstrates experience or strong interest in modelling, programming, systems thinking, and qualitative/quantitative research methods
- Documented programming experience for example GitHub project on MATLAB, Python, Julia, Javascript
- Possesses a strong academic record, with relevant experience in either industry or academia.
- Has prior professional experience and a solid understanding of workplace responsibilities and expectations, which will be considered a key advantage.
- Shows a deep interest in interdisciplinary research, is capable of independent work, and actively engages with the supervision team to foster collaborative research.

For admission to the Programme the weighted average grade is B or higher is usually required. The applicant must have gained the degree within the start date of the position, so applicants in the last semester of their master's degree are also encouraged to apply.

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. 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 realize common objectives. Personal suitability for the post will be emphasized.

### Personal characteristics

- Strongly motivated and ambitious
- Be structured, targeted and solution oriented
- Have motivation to work interdisciplinary
- The successful candidate should be creative and actively contribute to the team he/she will be part of
- Have good dissemination skills
- Personal skills like a positive and friendly attitude, and contributing to a sustainable social environment will also be valued

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

## We offer

- A stimulating and growing research environment, with good opportunities to develop your career and your academic skills
- An open and inclusive work environment with dedicated colleagues
- 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 536 200 a year. Further promotion will be based on time served in the position.

In special cases, employment in code 1378 (NOK 546 569 - 658 728 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 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.

The research area for the position may include technologies covered by the Ministry's export control regulations. Employment in the position requires a relevant license or security clearance. For more information, see <https://nsm.no/en/>

## Contact information

For more information about the position, please contact:

Professor Sambeet Mishra, e-mail: [sambeet.mishra@usn.no](mailto:sambeet.mishra@usn.no) or Associate Professor Thomas Øyvang, phone: +47 35 57 51 55 , e-mail: [thomas.oyvang@usn.no](mailto:thomas.oyvang@usn.no) at the Faculty of Technology, Natural Sciences and Maritime Sciences, Department of Electrical Engineering, Information Technology and Cybernetics.

Alternatively co-supervisor Research Scientist Sigurd Bjarghov, ([sigurd.bjarghov@sintef.no](mailto:sigurd.bjarghov@sintef.no)) at SINTEF Energy Research, Department of Energy systems

For questions regarding the recruitment process, please contact:

Stine Knudseth, e-mail: [stine.knudseth@usn.no](mailto: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:

- Cover letter outlining the motivation and a detailed Curriculum Vitae (CV).
- Transcripts and diplomas of Bachelor's and Master's Degrees (120 ECTS). The transcript should clearly show the grades obtained for different courses taken at the Bachelor and Master Degree. The diplomas must be in a Scandinavian language or translated to English.
- A 5-page maximum project description. The candidate should describe how he/she would carry out the tasks if he/she is offered this position. The description preferably also contain new ideas or methods that the candidate would think of using them for the execution of this PhD project.
- A copy of master thesis and any scientific publications and a list of these; GitHub profile with project is also relevant.
- Three references (contact information).
- Other relevant certificates (if applicable, must be specified).

Please note that all documents must be in a Scandinavian language or in English. Any translations must be certified. The selection process includes a test where qualified candidates shall complete a task to demonstrate their skills and competence.

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 research area for the position may include technologies referred to in the Ministry's export control regulations. Relevant license or security clearances may therefore be required.

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:**

- Sambeet Mishra, Professor - main supervisor  
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- Thomas Øyvang, Associate Professor - co-supervisor  
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- Sigurd Bjarghov, Research Scientist - co-supervisor, SINTEF Energi  
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### **Place of service:**

Kjølnes Ring 56 3918 Porsgrunn (Porsgrunn Municipality)