

Postdoctoral Researcher on “Risk analysis of maritime traffic and novel marine systems in critical waterways in northern Baltic Sea  
Aalto University

Direct Link: <https://www.AcademicKeys.com/r?job=253656>

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Posted Feb. 24, 2025, set to expire Dec. 31, 2025

**Job Title** Postdoctoral Researcher on “Risk analysis of maritime traffic and novel marine systems in critical waterways in northern Baltic Sea

**Department** T212 Department of Energy and Mechanical Engineering

**Institution** Aalto University  
, , Finland

**Date Posted** Feb. 24, 2025

**Application Deadline** Open until filled

**Position Start Date** Available immediately

**Job Categories** Post-Doc

**Academic Field(s)** Mechanical Engineering

**Job Website** [https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Postdoctoral-Researcher-on--Risk-analysis-of-maritime-traffic-and-novel-marine-systems-in-critical-waterways-in-northern-Baltic-Sea\\_R42399-1](https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Postdoctoral-Researcher-on--Risk-analysis-of-maritime-traffic-and-novel-marine-systems-in-critical-waterways-in-northern-Baltic-Sea_R42399-1)

**Apply By Email**

**Job Description**

Aalto University is where science and art meet technology and business. We shape a sustainable future by making research breakthroughs in and across our disciplines, sparking the game changers of tomorrow and creating novel solutions to major global challenges. Our community is made up of 120 nationalities, 14 000 students, 400 professors and close to 5000 other faculty and staff working on our dynamic campus in Espoo, Greater Helsinki, Finland. Diversity is part of who we are, and we actively work to ensure our community’s diversity and inclusiveness. This is why we warmly encourage qualified candidates from all backgrounds to join our community.

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The together and with passion, we research, teach, develop and create solutions targeting social need and shaping a safe and efficient future generation of materials, manufacturing, structures, machines, ships, energy flows and systems.

We are now looking for a Postdoctoral Researcher on “Risk analysis of maritime traffic and novel marine systems in critical waterways in northern Baltic Sea

Background: The use of the marine space in the Baltic Sea is subject to significant change, which impacts the safety, security and sustainability of marine waterways in the area. Apart from the general global trend of increasing usage of ocean spaces for commercial and leisure-based maritime activities, energy production and tourism, the Baltic Sea provides additional developments and challenges. The green (or “clean”) energy transition brings a set of new activities to the region, such as offshore energy production. Our WATERWAYS project focuses on creating a common understanding of how Finland’s sea areas are and will be used, and thereby find solutions for how to mitigate risks arising from traditional and novel maritime systems and activities. With a multi- and interdisciplinary approach, WATERWAYS will provide an understanding of what the sustainable, smart and safe use and development of marine waterways mean now and in the future, and what actions this requires from society.

This postdoctoral position aims to lead scientific research for the systemic analysis of opportunities and risks emerging from marine traffic and innovative infrastructures (e.g. offshore wind farms) to guide their responsible development and management. This postdoc will be leading research tasks related to the application of systems safety theories, maritime risk analysis and the use of probabilistic risk analysis tools to determine and map the integrity and functionality of the planned offshore wind farms and their impact on maritime traffic. In addition, the selected candidate will be advising doctoral students, teaching master students, and supporting in the development of new research initiatives within the field of maritime risk analysis and safety science.

#### Your role and goals

The postdoctoral position is intended for a graduated D.Sc./PhD profile with a strong interest in research (and education) of maritime risk analysis, analysis of maritime traffic behaviour, and systems safety analysis with a focus on the characteristics of maritime activities in Northern Baltic and its connection to EU maritime and IMO developments and plans for the upcoming 15 years

#### Your network and team

The postdoctoral research position is installed within the Research Group on Safe and Efficient Marine and Ship Systems (SEMSS) at Aalto Marine and Arctic Technology (Department of Energy and Mechanical Engineering). The postdoctoral researcher will be an active collaborator in local and

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international research projects and the created networks.

#### Your experience and ambitions

The work is situated within topics of maritime traffic risk analysis, safety systems engineering, systems modelling, and maritime safety and risk management. Applications from candidates with a solid background in the listed topics are welcome. Knowledge of maritime shipping in ice conditions and the management of Finnish language at a proficient level are considered a significant plus for the candidate.

#### What we offer

A work contract for 2&#43;2 years full-time, according to the salary scales of Aalto University. The starting salary for this position is 4067 €/month. The workplace is in Otakaari 4/ Tietotie 1C, Espoo (Otaniemi), Finland. By working at our SEMSS research group we offer: \*

Meaningful and inspiring environment. We are proud of our purpose to shape a sustainable future. We spark the game changers of tomorrow, and renew society with research-based knowledge, creativity and an entrepreneurial mindset. \*

Culture that inspires and includes everyone. All our work is guided by the values of the university: responsibility, courage, and collaboration. It’s the people that create Aalto, now and in the future. We want to be an open community where equality and inclusion enable curiosity, innovation, collaboration and wellbeing. \*

Support, coaching and sparring when you feel you need it. \*

Great possibilities for competence development and learning. We constantly keep learning to find the most impactful ways to empower - and invest in - our people.

Our vast array of professional development opportunities means you will grow and learn, having the chance to participate actively in staff trainings and development projects based on your interests and needs. We value work-life balance and well-being in all aspects of life. The primary workplace located at the Otaniemi Campus in Espoo. Life on the revitalized campus is vibrant, featuring stunning architecture, tranquil nature, and a variety of cafes, restaurants, and services, all complemented by excellent public transportation connections.

#### Join us!

To apply, please share your CV and motivation letter with us through our recruitment site (“Apply now!”) latest on 31th May 2025.

Please note: Aalto University’s employees should apply for the position via our internal HR system Workday (Internal Jobs) by using their existing Workday user account (not via the external webpage for open positions).

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For more information about the role, please contact Assistant Professor Osiris A. Valdez Banda: [\[url=mailto:osiris.valdez.banda@aalto.fi\]](mailto:osiris.valdez.banda@aalto.fi)osiris.valdez.banda@aalto.fi. In questions related to the recruitment system, please contact [\[url=mailto:hr-eng@aalto.fi\]](mailto:hr-eng@aalto.fi)hr-eng@aalto.fi .

We will go through applications, and we may invite suitable candidates to interview already during the application period. We aim to have a transparent and equal recruitment process, so feel free to ask us for feedback.

Want to know more about us and your future colleagues? You can watch these videos:

[\[url=https://www.youtube.com/watch?v=i8zawpNMVG8\]](https://www.youtube.com/watch?v=i8zawpNMVG8)This is Aalto University!

[\[url=https://www.youtube.com/watch?v=5k\\_og\\_6zUJQ\]](https://www.youtube.com/watch?v=5k_og_6zUJQ)Aalto University - Towards a better world and [\[url=https://www.youtube.com/watch?v=ZK6pDWm1\\_CE\]](https://www.youtube.com/watch?v=ZK6pDWm1_CE)Shaping a Sustainable Future.

Read more about working at Aalto: [\[url=https://www.aalto.fi/en/careers-at-aalto\]](https://www.aalto.fi/en/careers-at-aalto)<https://www.aalto.fi/en/careers-at-aalto>

Check out our new virtual campus experience: [\[url=https://virtualltour.aalto.fi/\]](https://virtualltour.aalto.fi/)<https://virtualltour.aalto.fi/>

#### About Finland

Finland is a great place for living with or without family - it is a safe, politically stable and well-organized Nordic society. Finland is consistently ranked high in quality of life and was listed again as the happiest country in the world: [\[url=https://worldhappiness.report/news/world-happiness-report-2024-most-comprehensive-picture-yet-of-happiness-across-generations/\]](https://worldhappiness.report/news/world-happiness-report-2024-most-comprehensive-picture-yet-of-happiness-across-generations/)World Happiness Report 2024  
For more information about living in Finland: [\[url=https://www.aalto.fi/en/careers-at-aalto/international-staff\]](https://www.aalto.fi/en/careers-at-aalto/international-staff)Aalto Careers for International Staff .

### Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

#### Contact

Finland