

Postdoctoral Researcher in AI-Enhanced Adaptive Design
for Dynamic Landscapes
Aalto University

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Posted Aug. 29, 2025, set to expire Dec. 31, 2025

Job Title Postdoctoral Researcher in AI-Enhanced Adaptive Design for Dynamic Landscapes

Department T201 Dept. Architecture

Institution Aalto University
, , Finland

Date Posted Aug. 29, 2025

Application Deadline Open until filled

Position Start Date Available immediately

Job Categories Post-Doc

Academic Field(s) Architecture/Landscape Architecture

Job Website https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Postdoctoral-Researcher-in-AI-Enhanced-Adaptive-Design-for-Dynamic-Landscapes_R44077-1

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 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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School of Arts, Design and Architecture - Department of Architecture

Location: Otaniemi Campus, Espoo, Finland

Join a cutting-edge research environment where architecture, landscape architecture, and artificial intelligence meet to address complex environmental challenges.

About the Project

The Adaptive Design for AI-Driven Processes in Transforming Dynamic Landscapes (ADAPT) project develops scalable, data-driven design methodologies that transform dynamic environmental processes, such as sedimentation, meltwater flow, and vegetation change, into active drivers of adaptive design. This interdisciplinary work combines advanced computational tools, including 4D point cloud modeling and state-of-the-art machine learning and deep learning techniques (such as generative adversarial networks), with empirical fieldwork in Norwegian glacier environments. As a Postdoctoral researcher, you will play a central role in advancing AI-enhanced adaptive design tools, immersive simulations, and computational workflows that redefine how we design for climate-driven environmental change. You will collaborate with world-leading partners including ETH Zurich, MIT Media Lab, and the Norwegian University of Life Sciences (NMBU).

Your role and goals

As a Postdoctoral Researcher in the ADAPT project, you will:

- * Lead the development of AI-enhanced adaptive design tools and interactive simulation environments that integrate environmental data with generative design workflows.
- * Design, test, and document computational frameworks that combine 4D point cloud data, geospatial analysis, and advanced ML/DL algorithms.
- * Integrate dynamic environmental datasets into immersive and interactive prototypes for scenario testing and stakeholder engagement.
- * Collaborate closely with the PhD researcher to connect environmental data analysis with computational design innovation.
- * Participate in fieldwork in Norwegian glacier environments to collect and validate site-specific data.
- * Contribute to international research visits to ETH Zurich, MIT Media Lab, and NMBU.
- * Publish in high-impact peer-reviewed journals and present at leading conferences, exhibitions, and stakeholder events.
- * Mentor junior researchers and support the interdisciplinary growth of the research team.

Your network and team

You will be based in the Department of Architecture at Aalto University's Otaniemi campus, working within an interdisciplinary research environment. Your main collaborators will include:

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- * Principal Investigator (PI): Prof. Pia Fricker, specialist in computational design and adaptive landscape and territorial systems.
- * ADAPT PhD researcher, focusing on environmental data analysis and prototype development.
- * International partners at ETH Zurich, MIT Media Lab, and NMBU, providing expertise in geospatial modeling, immersive technologies, and glacial environmental dynamics.

Your experience and ambitions

We welcome candidates from diverse academic backgrounds, including architecture, computational design, computer science, or related fields, who have a proven track record of applying advanced computational methods to real-world environmental challenges.

- * A doctoral degree in architecture, landscape architecture, computational design, computer science, or a closely related field, completed before the position start date.
- * Proven expertise in AI/ML/DL techniques for generative or analytical purposes (e.g., generative adversarial networks, convolutional neural networks, diffusion models, or other emerging methods), with evidence of application in research or professional projects.
- * Strong proficiency in the following areas, and the ability to integrate them into complex workflows:
 - * Computational design and 3D/4D modeling (e.g., Rhino/Grasshopper, Python, Unity, Blender).
 - * Point cloud processing (e.g., CloudCompare, Autodesk ReCap) and/or GIS.
 - * Immersive simulation environments and interactive design tools.
- * Experience coordinating interdisciplinary research projects.
- * Experience in publishing and presenting in international academic forums.
- * Willingness to participate in fieldwork in potentially challenging environments.
- * Excellent English skills (written and spoken).

What we offer

- * A full-time, fixed-term position of 3 years.
- * Monthly salary of €4,200.
- * The opportunity to work on a high-impact, international research project addressing urgent climate adaptation challenges.
- * Funded research visits to ETH Zurich, and NMBU, and participation in fieldwork in Norwegian glacier environments.
- * Access to state-of-the-art facilities, including UAVs, terrestrial laser scanning equipment, immersive VR/AR labs (<https://studios.aalto.fi/magics/JMAGICS> infrastructure), and computational design

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studios for immersive data simulation.

- * Mentoring in academic leadership, research innovation, and career development.
- * A vibrant, international campus in Otaniemi with excellent public transport connections, green surroundings, and an active research community.

Our wide range of professional development opportunities means you will grow and learn, participating actively in diverse research trainings based on your interests and needs. Life on campus is vibrant, featuring stunning architecture, tranquil nature, and a variety of cafes, restaurants, and services.

How to Apply

Please submit your application through our recruitment site ("Apply now!") no later than 23:59 (EET) on 15 October 2025. We aim for the selected candidate to start no later than January 2026. Your application should include:

- * A motivation letter (max. 2 pages) explaining your interest in the position and how your background fits the role.
- * Your CV, including contact information for two referees.
- * Publication list.
- * Relevant degree certificates and academic transcripts.
- * A portfolio or selection of publications that best demonstrate your research and computational design skills.

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). If you are a student or visitor at Aalto University, please apply with your personal email address (not aalto.fi) via [url=https://www.aalto.fi/en/careers-at-aalto]Aalto University open positions

For further information on the position: Associate Prof. Dr. Pia Fricker (firstname.lastname@aalto.fi)
For questions related to the application process: hr-arch@aalto.fi

We will review applications as they arrive and may invite suitable candidates for interviews during the application period. You will hear from us no later than the second week of November 2025. We aim for a transparent and equal recruitment process, so feel free to request feedback.

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

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

[url=https://www.youtube.com/watch?v=5k_og_6zUJQ]Aalto University - Towards a better world

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and [\[url=https://www.youtube.com/watch?v=#61;ZK6pDWm1_CE\]](https://www.youtube.com/watch?v=#61;ZK6pDWm1_CE)Shaping a Sustainable Future.

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

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

About Finland

Finland is a safe, politically stable, and well-organized Nordic society, consistently ranked among the world's most livable countries. It offers a high quality of life, excellent education, and a strong social security system. Finland has been ranked the happiest country in the world for several consecutive years [\[url=https://worldhappiness.report/news/world-happiness-report-2025-people-are-much-kinder-than-we-expect-research-shows/\]](https://worldhappiness.report/news/world-happiness-report-2025-people-are-much-kinder-than-we-expect-research-shows/)World Happiness Report 2025

For more information about living in Finland: [\[url=https://www.aalto.fi/en/careers-at-aalto/for-](https://www.aalto.fi/en/careers-at-aalto/for-international-staff)

[international-staff\]](https://www.aalto.fi/en/careers-at-aalto/for-international-staff)Aalto Careers for International Staff

More about Aalto University:

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Contact Information

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

Contact

Finland