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

Job Title	Doctoral Researcher in AI-Enhanced Adaptive Design for Dynamic Landscapes
Department	T201 Dept. Architecture
Institution	Aalto University , , Finland
Date Posted	Sep. 2, 2025
Application Deadline	Open until filled
Position Start Date	Available immediately
Job Categories	Graduate Student
Academic Field(s)	Architecture/Landscape Architecture
Job Website	https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Doctoral-Researcher-in-AI-Enhanced-Adaptive-Design-for-Dynamic-Landscapes_R44071-1
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.

PhD Researcher: AI-Enhanced Adaptive Design for Dynamic Landscapes

School of Arts, Design and Architecture - Department of Architecture

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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.

You will collaborate closely with world-leading partners including ETH Zurich, MIT Media Lab, and the Norwegian University of Life Sciences (NMBU), contributing to research that redefines how we design for climate-driven environmental change.

Your role and goals
As a PhD researcher in the ADAPT project, you will: * Conduct field studies in Norwegian glacial regions to capture high-resolution spatial-temporal environmental data (sedimentation, meltwater flows, vegetation changes, landslides). * Process and analyse geospatial datasets, including 4D point clouds from UAVs and TLS, integrating them into adaptive design frameworks. * Develop physical and digital prototypes informed by AI-enhanced simulations and dynamic environmental data. * Work closely with the project’s Postdoctoral researcher to test generative design workflows using machine learning (ML) and deep learning (DL) techniques, such as generative adversarial networks (GANs), and other emerging AI methods. * Participate in funded international research visits to ETH Zurich, MIT Media Lab, and NMBU. * Publish in peer-reviewed journals and present at international conferences, exhibitions, and stakeholder workshops.

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: * Principal Investigator (PI): Associate Prof. Pia Fricker, specialist in computational design and adaptive landscape and territorial systems. * The ADAPT Postdoctoral researcher, focusing on AI-driven generative design methods. * International partners at ETH Zurich, MIT Media Lab, and NMBU, providing expertise in geospatial modeling, immersive technologies, and glacial environmental dynamics.

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Your experience and ambitions
We welcome candidates from diverse disciplinary backgrounds who are eager to work across fields. You are expected to have: * A Master's degree in architecture, landscape architecture, computer science, environmental science, ecology, or a related field. * Experience with AI/ML/DL techniques (e.g., generative adversarial networks, convolutional neural networks, or other emerging methods) for generative or analytical purposes, and willingness to deepen and broaden these skills. * Skills in at least one of the following, and readiness to develop expertise in the others during the doctoral research: * Computational design and 3D/4D modeling (e.g., Rhino/Grasshopper, Unity, Blender). * Point cloud processing (e.g., CloudCompare, Autodesk ReCap) and/or GIS. * Environmental data collection and analysis. * Readiness to learn complementary skills, for example, environmental scientists learning computational design, or designers learning environmental field methods. * Willingness to participate in fieldwork in potentially challenging environments. * Excellent English skills (written and spoken).

What we offer * A fully funded, full-time doctoral position (estimated duration is approximately 3.9 years depending on the start date, with the employment ending no later than August 31, 2029) with an initial two-year contract (mid-term evaluation for continuation), starting salary EUR 3,075/month. * 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 ([url=https://studios.aalto.fi/magics/]MAGICS infrastructure), and computational design studios for immersive data simulation. * Mentoring in academic publishing, networking, and interdisciplinary skill 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 30 September 2025. We aim for the selected candidate to start no later than December 2025, with an earlier start possible by agreement.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 of previous work (design, computational, or research projects, as

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relevant).

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

The selected applicant will have to also apply successfully to the ARTS Doctoral programme during the six-month probation period for the position. The selected applicant is thus expected to to be able to develop a high quality research plan for the ARTS Doctoral programme soon after being hired. The target graduation time in doctoral studies is four years at the School of Arts, Design and Architecture

You can find more information about the ARTS Doctoral Programme and how to apply for doctoral studies here: [url=https://www.aalto.fi/en/study-options/aalto-doctoral-programme-in-arts-design-and-architecture]Aalto Doctoral Programme in Arts, Design and Architecture | Aalto University.

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 October. 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 and [url=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
Check out our new virtual campus experience: [url=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/]World Happiness Report 2025
For more information about living in Finland: [url=https://www.aalto.fi/en/careers-at-aalto/for-

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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