

Postdoctoral Researcher Position in Advanced  
3DPiezoMEMS Fabrication with Commercialization  
Potential  
Aalto University

Direct Link: <https://www.AcademicKeys.com/r?job=250349>

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Posted Dec. 12, 2024, set to expire Apr. 13, 2025

**Job Title** Postdoctoral Researcher Position in Advanced  
3DPiezoMEMS Fabrication with Commercialization  
Potential

**Department** T410 Dept. Electrical Engineering and Automation

**Institution** Aalto University  
, , Finland

**Date Posted** Dec. 12, 2024

**Application Deadline** Open until filled

**Position Start Date** Available immediately

**Job Categories** Post-Doc

**Academic Field(s)** Electrical and/or Electronics

**Job Website** [https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Postdoctoral-Researcher-Position-in-Advanced-3DPiezoMEMS-Fabrication-with-Commercialization-Potential\\_R41680](https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Postdoctoral-Researcher-Position-in-Advanced-3DPiezoMEMS-Fabrication-with-Commercialization-Potential_R41680)

**Apply By Email**

### Job Description

Electronics Integration and Reliability (EILB) is a research group at Aalto University School of Electrical Engineering focused on exploring innovative materials and design concepts for advanced electronics. We are developing smart sensor applications, high-efficiency, sustainable semiconductor substrates, and devices for power electronics and RF. Our mission is to achieve transformative device innovations by leveraging high-crystal quality aluminum nitride (AlN) thin film-based technologies.

We are seeking a Postdoctoral Researcher with strong expertise in advanced microfabrication of MEMS, who is passionate about advancing technology, aligning with our university spin-off objectives. This position provides a valuable opportunity to work within a dynamic and interdisciplinary research

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environment, contributing to significant advancements in MEMS technology. The successful candidate will have the chance to engage with a diverse team of experts, all working collaboratively toward pushing the boundaries of MEMS fabrication and performance. As a member of our team, you will be involved in the design, fabrication, and optimization of complex MEMS. This position offers an opportunity to work in a collaborative research environment, applying your skills and knowledge to advance MEMS technology and explore potential commercial applications.

**Key Responsibilities:** \*

Design, develop, and optimize 3DPiezoMEMS using advanced microfabrication tools and deposition of piezoelectric materials. \*

Conduct experimental research and perform detailed analysis to improve device performance and reliability. \*

Collaborate with interdisciplinary teams to integrate MEMS devices into practical applications. \*

Work with industry partners to scale up fabrication processes. \*

Collaborate with international partners and contribute to several EU-funded projects, gaining valuable exposure to European research in electronic components and systems.

**Requirements:** \*

Doctoral degree in a suitable area (e.g. electrical engineering, physics, or materials science). \*

Solid and proven hands-on experience in microfabrication, with a focus on MEMS-based processes. Including lithography, P/CVD processes, wet- and dry etching, electrochemical deposition, wafer bonding, and dicing. \*

Experience in device characterization and performance evaluation, such as electrical and material characterization. \*

Strong analytical and writing skills. \*

Experience in writing grant proposals and securing funding is an advantage.

**We offer:** \*

Fixed-term position for 3 years (1&#43;2) \*

Opportunity to conduct independent research in OtaNano ([url=http://www.aalto.fi/en/otanano]OtaNano | Aalto University) using cutting-edge infrastructure in Micronova and Nanomicroscopy Center \*

Possibility to participate in already funded public-private-partnership projects, network with major European industrial and academic project partners and contribute to new research funding applications \*

Possibility to co-advise graduate students and participate in teaching \*

The starting salary for a postdoctoral researcher is approximately 4000-4200 €/month, depending on previous experience \*

The contract includes Aalto University occupational healthcare

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The appointment is available immediately.

#### How to apply

To apply, please submit the documents indicated below using our online recruitment system (“Apply now!” link below), by January 31st, 2025. Application materials should be submitted in a single pdf file and in English. Your application should include the following attachments: \*

a short cover letter stating your motivation for the position \*

a CV \*

a copy of study records \*

a list of the latest publications \*

the names and contact details of 2 references

The application materials will not be returned.

#### Additional information

For additional information in recruitment process related questions, please contact HR partner Camilla Hanganpää, [[url=mailto:camilla.hanganpaa@aalto.fi](mailto:camilla.hanganpaa@aalto.fi)]camilla.hanganpaa@aalto.fi.

Aalto University reserves the right for justified reasons to leave the position open, to extend the application period and to consider candidates who have not submitted applications during the application period.

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 13 000 students, 400 professors and close to 4 500 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.

#### Contact Information

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

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