

Postdoctoral Researchers in Computational
Electromechanics
Aalto University

Direct Link: <https://www.AcademicKeys.com/r?job=248066>

Downloaded On: Nov. 21, 2024 4:52pm

Posted Nov. 1, 2024, set to expire Mar. 3, 2025

Job Title	Postdoctoral Researchers in Computational Electromechanics
Department	T410 Dept. Electrical Engineering and Automation
Institution	Aalto University , , Finland
Date Posted	Nov. 1, 2024
Application Deadline	Open until filled
Position Start Date	Available immediately
Job Categories	Post-Doc
Academic Field(s)	Electrical and/or Electronics Computer Engineering
Job Website	https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Postdoctoral-Researchers-in-Computational-Electromechanics_R41317-1

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 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.

The Department of Electrical Engineering and Automation is an ecosystem where scientists and engineers from different fields interact and work together by crossing over traditional boundaries to

Postdoctoral Researchers in Computational Electromechanics Aalto University

Direct Link: <https://www.AcademicKeys.com/r?job=248066>

Downloaded On: Nov. 21, 2024 4:52pm

Posted Nov. 1, 2024, set to expire Mar. 3, 2025

solve the most challenging scientific and technological problems, to provide excellent education, and to produce wellbeing for the society. Our academic community has approximately 250 employees and 23 professors. The Department is part of the Aalto University School of Electrical Engineering (Aalto ELEC) with world-class research facilities and instruments.

We are now looking for talented and highly motivated

Postdoctoral Researchers in Electromechanics and Electrical Machines

The Computational Electromechanics Group has two open postdoctoral research positions funded by the Academy of Finland's Centre of Excellence (CoE) in High-Speed Electromechanical Energy Conversion Systems (2022-2029).

Your role

You will conduct ground-breaking research on next-generation high-speed electric machines and systems. Depending on your interest and background, we can offer you a research topic ranging from the numerical modelling of electrical machines to developing simulation methods for the whole drive system including electric and mechanical parts. You will also develop models and tools needed by our CoE partners and in cooperation with them. You will be provided possibilities to teach in master-level courses and to instruct master's and doctoral students.

Your background and expertise

We expect you to have a recent doctoral degree in electrical engineering, mathematics, physics, or a related field. The successful candidate will have demonstrated proficiency in the following areas: *

- electric machine, and numerical modelling of electromagnetic field *
- mathematical model order reduction and uncertainty propagation modelling *
- programming skills (ability to code in Fortran and Matlab are appreciated) *
- strong command of written and spoken English

We expect you to be open-minded for new research, eager to learn more, and fit to teamwork. We also expect the candidates to have a publication record in leading journals and conferences. Please document your background and expertise in your application.

Scientific environment

The Computational Electromechanics Group ([\[url=https://www.aalto.fi/en/department-of-electrical-engineering-and-automation/electromechanics\]](https://www.aalto.fi/en/department-of-electrical-engineering-and-automation/electromechanics)Electromechanics | Aalto University) conducts research on electric machines and the related numerical simulation of the electromagnetic field for model order reduction, optimization, and fault diagnosis. Our core competence is the development of advanced

Postdoctoral Researchers in Computational Electromechanics Aalto University

Direct Link: <https://www.AcademicKeys.com/r?job=248066>

Downloaded On: Nov. 21, 2024 4:52pm

Posted Nov. 1, 2024, set to expire Mar. 3, 2025

numerical methods for coupled electromagnetic problems with thermal or mechanical problems. We actively collaborate with the industry and have exhaustive experimental capabilities for material characterisation and validation of the developed methods. Our research is highly cited by other researchers and is being utilized by our industrial partners.

The Computational Electromechanics Group is leading and coordinating the CoE in High-Speed Electromechanical Energy Conversion Systems ([\[url=https://www.aalto.fi/en/hiecs\]](https://www.aalto.fi/en/hiecs)The HiECSs Centre of Excellence | Aalto University). The world is being electrified at unparalleled pace, from transport to industrial processes and complete energy systems. As a result, there is an incomparable need for energy-, material-, and cost-efficient electric machines and powertrains. The CoE brings together the key experts in this area.

We offer

The expected starting salary for a Postdoctoral Researcher is approximately 4000 €/month and salary will increase with responsibilities and performance over time. The fixed term contract is initially for two years, with an optional extension of two additional years. The annual workload of research and teaching staff at Aalto University is currently 1612 hours. As an employer, Aalto University provides excellent learning and development opportunities as well as occupational healthcare services. Finland has a comprehensive social security system. The primary workplace will be the Otaniemi Campus at Aalto University within our highly international research group. Preferable starting time is the spring of 2025 or earlier.

Ready to apply?

Please submit your application through the 'Apply now' link at the bottom of the web page and include the following documents in English in a single PDF file: *

Letter of motivation *

CV including list of publications *

Your three best publications with a short description of your contribution to them *

Degree certificates and academic transcripts *

Contact details of two referees (or letters of recommendation, if already available)

The deadline for applications is 30 November 2024. The positions will be filled as soon as suitable candidates are identified. Aalto University reserves the right for justified reasons to leave the position open, to extend the application period, reopen the application process, and to consider candidates who have not submitted applications during the application period.

Aalto University's employees and visitors please note: you should apply for the position via our internal system Workday -> find jobs (not external aalto.fi webpage of open positions) by using your existing

Postdoctoral Researchers in Computational
Electromechanics
Aalto University

Direct Link: <https://www.AcademicKeys.com/r?job=248066>

Downloaded On: Nov. 21, 2024 4:52pm

Posted Nov. 1, 2024, set to expire Mar. 3, 2025

Workday user account.

More information

If you wish to hear more about the positions, please contact Prof. Anouar Belahcen (anouar.belahcen@aalto.fi). Regarding the application process and practical arrangements, please contact HR partner Camilla Hanganpää (camilla.hanganpaa@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. For more information about living in Finland: <https://www.aalto.fi/en/careers-at-aalto/why-finland>

Contact Information

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

Contact

Finland