Master thesis workers and Doctoral researchers in analog circuit design and procedural circuit optimization with Berkeley Analog Generator
Aalto University

Job Title	Master thesis workers and Doctoral researchers in analog circuit design and procedural circuit optimization with Berkeley Analog Generator
Department	T411 Dept. Electronics and Nanoeng
Institution	Aalto University , , Finland
Date Posted	Nov. 6, 2024
Application Deadline	Open until filled
Position Start Date	Available immediately
Job Categories	Graduate Student
Academic Field(s)	Electrical and/or Electronics
Job Website	https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Master-thesis-workers-and-Doctoral-researchers-in-analog-circuit-design-and-procedural-circuit-optimization-with-Berkeley-Analog-Generator_R41368-1
Apply By Email	

Job Description

The rumors about the death of Analog electronics are premature, as Analog just went Programmatic. If you are willing to learn how to design Analog microelectronics by defining the parametrized implementation with Python, this is an opportunity for you to join the programmatic circuit design activities of Aalto Microelectronics Research Center ([url=https://metka.aalto.fi/]https://metka.aalto.fi).

We are looking for enthusiastic Master thesis workers and Doctoral researchers to work with us on this area of research.

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Analog building blocks are needed in every piece of microelectronics and Systems-on-Chip, like digital circuitry and microprocessors. Programmatic design methodology aims to provide parametrized and procedurally optimized analog building blocks for these needs. Berkeley Analog Generator is a design environment recently developed in University of Berkeley which enables analog circuit design by programmatic means. In Aalto we are looking for pioneer students with enthusiasm to learn to take this new methodology into use. If you want to be a game changer, this is your moment.

Successful execution of the work requires willingness to learn fluent unix working habits, Git version control, shell scripting and Python programming, complemented with entry level knowledge of analog design tools and methodology. Topic focuses on implementation of analog building blocks for A/D converters, sensor interfaces, 5G mmWave circuits, radio transmitters and receivers according to your preferences. The position is appropriate for M.Sc. and PhD students eager to learn new things with devotion to acquire skills of the future. Minimum entry criteria are B.Sc degree for Master’s worker and M.Sc. Degree for doctoral researcher in microelectronics design or computer science and working proficiency in English.

Applicants for doctoral researcher positions must fulfill the admission criteria of the Aalto Doctoral Programme and, if chosen for a position, apply for, obtain, and accept the right to pursue doctoral studies at Aalto University. For more information on the general requirements and the application process for doctoral studies, please visit [url=https://www.aalto.fi/en/doctoral-education/how-to-apply-for-doctoral-studies%22%20/t%20%22_blank]https://www.aalto.fi/en/doctoral-education/how-to-apply-for-doctoral-studies???

We offer
The master thesis worker position is full time and for 6 months and the starting salary is approximately 2500 EUR/month. The doctoral researcher’s position will be filled for 2 + 2 years (doctoral studies are expected to take 4 years in total). The salary will be based on both the job requirements and the employee’s personal performance in accordance with the salary system of Finnish universities. The starting salary for a doctoral student is approximately 3000 EUR/month and increases with thesis progress. We offer a wide range of staff benefits, such as occupational health care, flexible working hours, excellent sports facilities on campus and several restaurants and cafés on campus with staff discounts. The position is located at the Aalto University Otaniemi campus which can be easily reached by public transport.

Join us!?
To apply, please share the following application materials with us through our recruitment site ("Apply now!”). ?

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All material should be submitted in English and a pdf-file. You can send in max. Five (5) documents up to 5M bit in size. Application material should include:?? *
Letter of motivation (max. one page). Please describe your background and future plans.??? *
A curriculum vitae and possible list of publications with complete study and employment history, contact details of referees from 2 senior academic people. We will contact your referees, if recommendation letters are required.? (please see CV example [url=https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Ftenk.fi%2Fsites%2Fdefault%2F06%2FTENK_CV_template_2020.docx&wdOrigin=BROWSELINK%22%20\t%20%22_blank]TENK_CV_t(live.com))?? *
A study transcript provided by the applicant’s university that lists studies completed and grades achieved.?? *
For doctoral researchers: A copy of the M.Sc. degree certificate or equivalent. (for doctoral study application, it will need to be officially translated into Finnish, English or Swedish). If the degree is still pending, then a plan for its completion must be provided.?? *
For doctoral researchers: Plan for obtaining a certificate of English/Finnish/Swedish language knowledge for doctoral study application if the position is offered (in order to have it on time for application, see more from [url=https://www.aalto.fi/en/doctoral-education/how-to-apply-for-doctoral-studies%22%20/t%20%22_blank]https://www.aalto.fi/en/doctoral-education/how-to-apply-for-doctoral-studies)??

The call is open until the 30th of November 2024, but we will start reviewing and interviewing candidates immediately. We encourage you to apply as soon as possible.

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). Aalto University’s students?and visitors should apply as external candidates with personal (not aalto) email.?

Want to know more?

Further information please contact Associate Professor Marko Kosunen, [url=mailto:marko.kosunen@aalto.fi]marko.kosunen@aalto.fi.

Aalto University reserves the right to leave the positions open, extend the application period, reopen the application process, and consider candidates who have not submitted applications during the application period.

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In any recruitment process related questions, please contact HR Partner Karoliina Walldén ([url=mailto:karoliina.wallden@aalto.fi%22%20\t%20%22_blank]karoliina.wallden@aalto.fi).?

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 Electronics and Nanoengineering conducts research and arranges related courses in the fields of electromagnetics, micro and nanotechnology, radio engineering, and space technology. The department research groups have active national and international collaboration with several institutes and companies. Research groups are working with world-class research facilities and instruments; the largest clean rooms in the Nordic countries are located in the Micro- and nanotechnology centre Micronova.

Contact Information

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

Contact

Finland