Doctoral researchers to the Circular Materials Bioeconomy Network (CIMANET)
Aalto University

Job Title	Doctoral researchers to the Circular Materials Bioeconomy Network (CIMANET)
Department	T100 School services, CHEM
Institution	Aalto University , , Finland
Date Posted	Mar. 18, 2024
Application Deadline	Open until filled
Position Start Date	Available immediately
Job Categories	Post-Doc
Academic Field(s)	Chemical/Petroleum
Job Website	https://aalto.wd3.myworkdayjobs.com/aalto/job/Otaniemi-Espoo-Finland/Doctoral-researchers-to-the-Circular-Materials-Bioeconomy-Network--CIMANET-_R39077
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.

We are looking for motivated doctoral researchers to join the Circular Materials Bioeconomy Network (CIMANET)

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CIMANET is an interdisciplinary doctoral education network to support the renewal of the bio-based industry through new sustainable materials and processes. CIMANET is part of the doctoral education pilot program established by Finland's Ministry of Education and Culture, providing scientific and technological competences to promote sustainable growth. It strengthens the knowledge base required to enhance the Finnish forest and bio-based industry with novel solutions unveiling the full potential of biomass. CIMANET consists of nine universities: Aalto University, Hanken School of Economics, LUT University, Tampere University, University of Helsinki, University of Jyväskylä, University of Oulu, University of Turku, and Åbo Akademi University. At Aalto, operation of CIMANET is centered at the School of Chemical Engineering.

CIMANET operates in close collaboration with the industry, research organizations, as well as other stakeholders to create economic and societal impact by addressing the major challenges of our century: resource sufficiency, access to clean water, and climate change. CIMANET starts in 2024 and provides altogether 67 doctoral researchers funding for three years. Check out all the open positions at the [url=https://www.aalto.fi/en/doctoral-education-pilot/cimanet-doctoral-education-pilot]CIMANET pilot website.

Within CIMANET, the recruitment will be done in two phases: spring and fall 2024. Selected doctoral researchers will start their projects on August 1, 2024 or January 1, 2025, respectively. In the first phase, Aalto is looking for candidates for the following doctoral projects:

SUSTAINABLE PROCESSES

* Role of wood hemicellulose solubility in biomass fractionation scenarios ([url=https://www.aalto.fi/sites/g/files/flghsv161/files/2024-03/CIMANET-Nypelo_ENG_0.pdf]LINK). Supervisor: Prof. Tiina Nypelö.
* Lignin fragmentation and solubility in biorefineries ([url=https://www.aalto.fi/sites/g/files/flghsv161/files/2024-03/CIMANET-Alopaeus_ENG_0.pdf]LINK). Supervisor: Prof. Ville Alopaeus.
* Bioengineered high performance composites ([url=https://www.aalto.fi/sites/g/files/flghsv161/files/2024-03/CIMANET-Linder_ENG_0.pdf]LINK). Supervisor: Prof. Markus Linder.
* Industrial biotechnology, bioinspired chemical production ([url=https://www.aalto.fi/sites/g/files/flghsv161/files/2024-03/CIMANET-Jouhten_ENG_0.pdf]LINK). Supervisor: Prof. Paula Jouhten.
* Engineering microbial cell factories for in situ bioplastic composite synthesis from lignocellulosic hydrolysates: A multifaceted approach for Active and Intelligent packaging ([url=https://www.aalto.fi/sites/g/files/flghsv161/files/2024-03/CIMANET-Mangayil_ENG_0.pdf]LINK).

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Supervisor: Prof. Rahul Mangayil.

ADVANCED MATERIALS

* Controlling interactions for high performance lignocellulosic barrier materials ([url=https://www.aalto.fi/sites/g/files/flghsv161/files/2024-03/CIMANET-Mattos_Osterberg_ENG_0.pdf]LINK). Supervisors: Prof. Monika Österberg and Dr. Bruno Mattos.
* Cellulose nanocrystal-based polarized emitters ([url=https://www.aalto.fi/sites/g/files/flghsv161/files/2024-03/CIMANET-Anaya_Kontturi_ENG.pdf]LINK). Supervisors: Prof. Eero Kontturi and Dr. Eduardo Anaya-Plaza.
* Biobased electrodes and their functionalization via tailored precious metals deposition ([url=https://www.aalto.fi/sites/g/files/flghsv161/files/2024-03/CIMANET-Lundstrom_Vapaavuori_ENG_2.pdf]LINK). Supervisors: Prof. Mari Lundström and Prof. Jaana Vapaavuori.
* Fundamental understanding of cell material interactions for nanocellulose hydrogels for tissue engineering ([url=https://www.aalto.fi/sites/g/files/flghsv161/files/2024-03/CIMANET-Osterberg_ENG.pdf]LINK). Supervisor: Prof. Monika Österberg.
* Fundamentals of hyphae growth in mycelium composites ([url=https://www.aalto.fi/sites/g/files/flghsv161/files/2024-03/CIMANET-Rautkari_ENG.pdf]LINK). Supervisor: Prof. Lauri Rautkari.
* Completely bio-degradable earplugs/moldable sound absorbent solutions ([url=https://www.aalto.fi/sites/g/files/flghsv161/files/2024-03/CIMANET-Vapaavuori_Lokki_ENG_0.pdf]LINK). Supervisors: Prof. Jaana Vapaavuori and Prof. Tapio Lokki.
* Regenerative wood-based building products for a resource-constrained world ([url=https://www.aalto.fi/sites/g/files/flghsv161/files/2024-03/CIMANET-Hughes_ENG_0.pdf]LINK). Supervisor: Prof. Mark Hughes.
* Structural building components from salvaged timber ([url=https://www.aalto.fi/sites/g/files/flghsv161/files/2024-03/CIMANET-Fink_Hughes_ENG_0.pdf]LINK). Supervisors: Prof. Gerhard Fink and Prof. Mark Hughes.
* Multifunctional biobased textiles ([url=https://www.aalto.fi/sites/g/files/flghsv161/files/2024-03/CIMANET-Tehrani_ENG.pdf]LINK). Supervisor: Prof. Ali Tehrani.

CROSS-CUTTING TOPICS

* Designing consumer acceptance: biobased and recycled materials in textile/fashion design ([url=https://www.aalto.fi/sites/g/files/flghsv161/files/2024-03/CIMANET-Niinimaki_Dessbesell_ENG.pdf]LINK). Supervisors: Prof. Kirsi Niinimäki and Prof. Luana Dessbesell.

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* Scattering-based analysis method for pulps ([url=https://www.aalto.fi/sites/g/files/flghsv161/files/2024-03/CIMANET-Penttila_Maloney_ENG.pdf]LINK). Supervisors: Prof. Thaddeus Maloney and Dr. Paavo Penttilä.
* Molecular modelling of biospecies adsorption and interactions at cellulose interfaces ([url=https://www.aalto.fi/sites/g/files/flghsv161/files/2024-03/CIMANET-Sammalkorpi_ENG.pdf]LINK). Supervisor: Prof. Maria Sammalkorpi.

Formal requirements

An applicant must have

* completed a master’s degree awarded by a university, or a study programme that in the awarding country gives eligibility for doctoral level studies, in a relevant field for the position. The degree or programme must be completed by 31 July 2024 or preferably earlier (to start employment on 1 August 2024) or by 31 December 2024 or preferably earlier (to start employment on 1 January 2025).
* proficiency in English, Finnish, or Swedish (demonstrated during the admission to the doctoral programme with an official certificate, e.g., IELTS/TOEFL)

Applicants must also 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 within the probation period of the first 6 months. For more information on the general requirements and the application process for doctoral studies, please visit the [url=https://www.aalto.fi/en/doctoral-education/how-to-apply-for-doctoral-studies]Aalto Doctoral Programme website.

What we offer

* Opportunity to work in an engaging and inspriring community of world-class bio-based materials researchers and professionals passionate on development of new sustainable solutions. At Aalto, students are rigorously selected and highly motivated, leading to an exceptionally interactive and intellectually challenging atmosphere.
* High-quality doctoral training and supervision, nurturing your development into an independent researcher and a bioeconomy expert.
* Operation in close collaboration with industrial and academic partners, ensuring networking possibilities and integration to different sectors of the society, supporting your employment after graduation.
* We have a flexible modern work culture. We value the balance and well-being of work and leisure in

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all aspects of life.
* We offer you an interesting job in an inspiring work environment. You will be able to work in a community where we promote socially significant goals in science and education. We will familiarize you with your tasks and you will be part of a nice and competent team that will provide you with support for your work tasks also in the future. We encourage and offer opportunities for continuous development of your own expertise.
* The expected starting date in the position is either on 1st August 2024 or 1st January 2025.
* Fully-funded position for three years with the funding from the Finnish Ministry of Education and Culture, with a 6-month probation period. *
Aalto University follows the salary system of Finnish universities. The starting salary is approximately 2700 €/month (gross), and it increases as the Doctoral Researcher progresses in the research and studies.
* The annual workload of research and teaching staff at Aalto University is 1612 hours.
* The contract includes Aalto University occupational healthcare. Aalto University provides excellent learning and development opportunities, and a commuter ticket benefit. Unisport offers versatile sports facilities and exercise services with a staff discount.
* Your primary workplace is in Otaniemi, Espoo. The Otaniemi campus is a thriving and connected community of 100 nationalities. Life at the transformed campus is vibrant and filled with amazing architecture, calming nature, and a variety of cafes, restaurants, services and good connections along the metro and city train lines. See how the campus looks like on our virtual tour: [url=https://virtualtour.aalto.fi/]https://virtualtour.aalto.fi/

Join us!

To apply, please submit the following application materials through our aalto.fi recruitment site by Friday 19th April 2024 Finnish time. Click “Apply now”. Applications are considered only if submitted through the recruitment site.

You can apply for one or max. three of the open positions. Please prioritize your choices using the position codes. Please remember your choices when you move forward with your application.

Please note: Aalto University’s employees should apply for the position via 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.

All material should be submitted in English and in a pdf-file. Application material should include:

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1. Letter of motivation (max. one page). Please describe your background and future plans, and in particular the reasons for selecting the project(s).

2. A curriculum vitae and possible list of publications with complete study and employment history, contact details of referees from two senior academic people. We will contact your referees, if recommendation letters are required. Please see an example of academic CV [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]here.

3. A study transcript provided by the applicant’s university that lists studies completed and grades achieved.

4. A copy of the M.Sc. degree certificate or equivalent. If the degree is still pending, then a plan for its completion must be provided. Please note that for doctoral programme admission application it will need to be officially translated into Finnish, English or Swedish.

We will go through applications, and we may invite suitable candidates to interview already during the application period. The position will be filled as soon as a suitable candidate is identified. Chosen candidates should apply for doctoral study right immediately after accepting the position.

Any questions?

For additional information, kindly contact cimanet(at)aalto.fi. Aalto University reserves the right to leave the position open, extend the application period, reopen the application process, and consider candidates who have not submitted applications during the application period.

For questions about applying, please contact HR partner Noora Katisko, who can be reached by e-mail at noora.katisko(at)aalto.fi.

Want to know more about us and your future colleagues?

You can watch these videos: [url=https://www.youtube.com/watch?v=5k_og_6zUJQ]Aalto University - Towards a better world, [url=https://www.youtube.com/watch?v=dUfEGVM-ZP8&feature=youtu.be]Aalto People , 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

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Read more about people at the School of Chemical Engineering: [url=https://www.aalto.fi/en/school-of-chemical-engineering/the-people-of-the-school-of-chemical-engineering]https://www.aalto.fi/en/school-of-chemical-engineering/the-people-of-the-school-of-chemical-engineering

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 and was just listed again as the happiest country in the world: [url=https://worldhappiness.report/news/its-a-three-peat-finland-keeps-top-spot-as-happiest-country-in-world/]https://worldhappiness.report/news/its-a-three-peat-finland-keeps-top-spot-as-happiest-country-in-world/ . For more information about living in Finland: [url=https://www.aalto.fi/en/careers-at-aalto/living-in-finland]https://www.aalto.fi/en/careers-at-aalto/living-in-finland and [url=https://www.aalto.fi/en/careers-at-aalto/for-international-staff]https://www.aalto.fi/en/careers-at-aalto/for-international-staff .

Contact Information

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

Contact

Finland