Staff Scientist, Textile Engineering

24.2.2025

Application closes on

24.3.2025

Unit

School of Chemical Engineering

Job category

Other teaching and research personnel

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 more than 4500 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.

Aalto University's School of Chemical Engineering (CHEM), Department of Bioproducts and Biosystems (Bio2), is now looking for a

Staff Scientist in Textile Engineering

Are you passionate about textile technology and looking for a possibility to make an impact in the development of biobased sustainable textiles?

We are looking for a candidate with a background in textile technology or chemistry, with the competence and interest to develop and characterize textile materials and to support peers and students from various backgrounds. The candidate should be familiar with fiber and yarn production, preferably from renewable raw materials. Knowledge of fabric construction techniques (weaving, knitting, nonwovens) is an asset. In this position, you will collaborate with experts in different fields including textile technology, biopolymers, lignocellulosic materials, and textile design.

Combining your textile expertise with the ongoing materials development and understanding of biobased materials available at the Department, you will be able to develop new sustainable textile materials and processes. Via the FinnCERES materials bioeconomy competence center, LIBER center of excellence and Bioinnovation Center, you have excellent possibilities for interdisciplinary collaboration. The scientific environment and the available tools will enable you to make significant scientific developments in the field of biobased fibers and textile chemistry.

Your role and goals

Your role is to maintain and develop the textile infrastructure and manage equipment service. You will train users, support our researchers in conducting experiments and analyzing data, advise students, and take part in teaching.

The successful candidate should have a good knowledge of textile engineering and is expected to get involved in fiber spinning of man-made fibers, converting staple fibers into yarns and fabrics, characterizing fibers, yarn, and fabrics, dyeing and finishing of textiles and assessing their general fastness properties, operating and upkeeping the textile laboratory equipment and training students, offering textile laboratory courses, textile related projects at Bio2, collaborating with researchers at Aalto and other institutes, and strengthening the relationship with industrial partners and textile companies.

Scientific Environment

<u>The Department of Bioproducts and Biosystems</u> (Bio2) is at the forefront of forest products technologies and cutting-edge biotechnology. The Department uses its interdisciplinary approach to design and develop innovative products and solutions for applications ranging from construction and textiles to biomaterials, energy and biomedicine.

Some of our research activities at CHEM involve fiber production, wet spinning, electrospinning, nonwovens, yarn production, and chemical textile finishing processes. The school has a unique and comprehensive set of instruments for producing and characterizing textile materials including wet fiber spinning machine, carding, roving, ring spinning, circular knitting machine, padding mangle, laboratory dyeing machine, universal mechanical testing machine, textile printer, and ash-/rub-/perspiration-/sublimation-/light-fastness testers.

Your experience and ambitions

We look for applicants who have

- · PhD in textile technology, textile chemistry, process engineering, or related field
- · Research experience in textile science and technology
- Expertise in material science with a focus on textile fibers, textile value chain, textile dyeing, finishing, or related fields
- Good written, oral, and communication skills, ability to communicate with scientific peers and the public
- Publication record in peer-reviewed journals
- Industrial experience is considered as an asset

What we offer

We offer a permanent position with a salary determined according to the salary system of Aalto University. Our facilities are located at Aalto University's Otaniemi campus in Espoo, Finland. The planned starting date is June 2025 or later depending on the availability of the candidate.

The employment contract includes occupational health care, and Finland has a comprehensive social security system. Aalto University provides excellent learning and development opportunities, commuter ticket benefit and Unisport offers versatile exercise services with staff discount.

Ready to apply?

If you want to join our community, please submit your application through the link on our recruitment system ("Apply now") at the latest on 24.3.2025.

To apply, share the following application materials with us (in English and combined in one single pdf file):

- Motivation letter describing how your skills and expertise align with the advertised position (1 page)
- CV including hands-on teaching experience and contact information of 2-3 references (1-2 pages)
- Description of previous equipment responsibilities (1-2 pages)
- Research statement describing your scientific goals and ambitions (1-2 pages)
- List of publications with three most important publications highlighted

If you are an Aalto employee, please apply via Workday system (internal jobs) using your existing Workday user account.

For further information about the position, please contact Professor Michael Hummel (michael.hummel(at)aalto.fi). In recruitment-related questions, please contact HR Partner Noora Katisko (noora.katisko(at)aalto.fi).

Want to know more about us and your future colleagues? You can watch these videos: <u>Aalto University – Towards a better world</u>, <u>Aalto People</u>, and <u>Shaping a Sustainable Future</u>. You can also check out our webpage about Aalto and Finland: https://wirtualtour.aalto.fi/ and check out our new virtual campus experience: https://virtualtour.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 and was just listed again as the happiest country in the 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: https://www.aalto.fi/services/about-finland

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