

Postdoctoral fellow in Material Development

Postdoctoral fellow in Material Development with specialization in filter materials and network simulation

Are you a researcher interested in material science and innovative value-added forest-based products? Are your areas of expertise within fluid mechanics and are you experienced in modelling/simulations? Then you might be the next member of our team!

Mid Sweden University (FSCN) and MoRe Research are searching for a postdoctoral fellow in a joint project.

MoRe Research is a part of RISE Research Institutes of Sweden since 2019, and the company is located in Örnsköldsvik, Sweden. The R&D team at MoRe consists of ten colleagues who together have broad and deep expertise in cellulose chemistry, pulp and paper technology, composite materials and also process- and product development. Our research focuses on new materials from cellulosic raw material (e.g. biocomposites, nanopapers, cellulosic foams) and on pulp development and fibre engineering. We are now recruiting a postdoctoral fellow in the field of fluid mechanics for the present joint project (MoRe and MiUn).

FSCN – Fibre Science and Communication Network is a multi-disciplinary research centre at Mid Sweden University. Our research aims to support the development of forest-based industries and new opportunities for forest-based biomaterials.

About the role

The purpose with the postdoc project is to develop fibre composites containing nanocellulose applied with layer-by-layer technology with a focus on filter materials. Mathematical models over fibre/fibrill/NFC networks will be created within the project for predictions and optimization of fibre/fibrill/NFC combinations in effective filters.

The position entails that you will conduct research through modelling and validation of models experimentally in lab- and pilot trials. In your role, you will lead the project and conduct daily R&D work in our lab- and pilot environment. You are also encouraged to initiate new research initiatives, apply for funding and build your network in the research field.

Terms of employment

The position involves full-time employment for a maximum of two years. Start date as soon as possible or as per agreement (not later than May 30 '2021).

Type of salary: Scholarship

Location: Örnsköldsvik Sweden

Employer: MoRe Research Örnsköldsvik AB, Örnsköldsvik, Sweden

Supervisor: Professor Per Engstrand, Mid Sweden University

Who are you?

We are looking for researcher with a PhD in the area of mechanical- or chemical engineering and expertise in fluid mechanics to utilize in fibre network simulation.

The following is a merit:

- Experience of validating models/simulations experimentally in lab or pilot experiments.
- Experience in pulp and paper processes
- Knowledge of cellulosic fibres and fibre network
- Knowhow in porous medias and filter applications
- Experience from lab work

As a person, we believe you are highly motivated, enthusiastic, with a team-oriented personality.

Since we often work in international projects, it is a requirement that you are fluent in English, both spoken and written. Any proficiency level in Swedish is a merit. If you don't know Swedish, we hope that you with curiosity, an open mind and enthusiasm want to learn a new language.

Are we right for each other?

We cannot promise you an easy task, but we can promise you dedicated colleagues and some truly engaging and important societal challenges to tackle. You will get to work in a dynamic environment offering professional and personal development opportunities. At RISE, we want you to succeed and feel good, because together with your colleagues, you contribute to a sustainable future and to securing a leading position for Swedish industry

and research globally. RISE can give you the chance to make a real difference. Welcome to Sweden's Research Institute and Innovation Partner.

Welcome with your application!

Do you have any questions or would like to know more? Please contact: Research manager at MoRe Research: Anna Svedberg, +46 70 819 11 75 or Professor Per Engstrand at Mid Sweden university, +46 70 573 67 52.

The deadline for applications is 7th of March 2021. Interviews will be conducted throughout the application period.

Our union contacts at MoRe Research are:

Torbjörn Sjölund for Sverige Ingenjörer, +46706585821 and Nadine Hollinger for Unionen, +46703685391.

We kindly ask external recruitment companies and salespeople not to contact us as we are governed by the Swedish Procurement Act.

Postdoc, postdoctoral, researcher, fibre technology, fluid mechanics, chemical engineering, mechanical engineering, modelling, simulation, filter, cellulose, pulp, paper, Örnsköldsvik.

Qualifications questions:

1. Are you a researcher with a PhD in the area of mechanical- or chemical engineering?
2. Do you have expertise in fluid mechanics to utilize in fibre network simulation?
3. Do you have experience of validating models/simulations experimentally in lab or pilot experiments?