

Research Professor, Bioengineering

Form of employment: Full time, Fixed term

Locations: Espoo, Finland

Job area: Industrial biotechnology and food solutions

Application period: July 04, 2018 - September 9, 2018

VTT Technical Research Centre of Finland Ltd is one of the leading research and technology organisations in Europe. Our research and innovation services give our partners, both private and public, all over the world a competitive edge. We pave the way for the future by developing new smart technologies, profitable solutions and innovation services. We create technology for business – for the benefit of society.

VTT Business area Solutions for Natural Resources and Environment promotes bio-economy and sustainable use of natural resources as well as solutions to realize circular economy. We focus on creating impact to our customers and society at large based on our scientific and technological excellence. We carry out applied research on industrial biotechnology, food solutions, biomass processing and bio-based products, sustainable chemistry and low-carbon energy.

We are looking for research professors in the field of bioengineering.

Research professors are key experts in VTT's research network contributing to implementation of VTT strategy. Research professor's role is to promote and lead innovative research in a defined research area taking care of competence gaps and supporting competence development for future need. In addition, the research professor support challenge-driven way of working and ensures scientific excellence in his/her field. The research professor is expected to build strong research project portfolios, manage large research openings and projects, actively collaborate with academic and industrial partners and stimulate active use of research results by beneficiaries, and publish and disseminate scientific results. The research professor is also expected to create international networks and collaborations and influence research and innovation agendas.

Do you want to join us in creating scientific and technological excellence for the benefit and competitiveness of companies and the society?

With us you will be responsible for

VTT has a strong focus on development of biotechnological processes for sustainable production of fuels, chemicals and materials from renewable biomass feedstocks. In the future, increasing emphasis is foreseen in production of biology-enabled value-added chemicals and materials, and use of C1 carbon sources (e.g. CO₂) as feedstock. Multidisciplinary approaches are highly appreciated at VTT, e.g. interaction with (thermo)chemistry, material sciences, micro-manufacturing and food technology.

The applicant should have a strong background in metabolic engineering and understanding of biological chemistry as a basis for using microbes as cell factories. She/he should have know-how on modelling of metabolism and cell function, in bioprocess physiology and optimisation, and synthetic biology and automation as tools in strain construction, analysis and product design. Proven record in working closely with industry and understanding industrial needs are of great benefit.

Research professor's role is to promote and lead innovative research in biotechnology at VTT. He/she is expected to foster collaboration between different expertise for creation of new industrially-relevant applications, and on the other hand to take care that her/his own research is at high international level.

You will be working with colleagues that have a broad know-how on industrially relevant production organisms, in particular yeasts and filamentous fungi, as well as bacteria and plant cell cultures. VTT researches in industrial biotechnology focus on protein production, metabolic engineering, synthetic biology,

enzyme discovery and engineering, bioprocess optimisation and scale-up, and process microbiology. The infrastructure available is excellent ranging from advanced analytics, automated robotics systems to pilot scale bioreactors.

We expect you to have

For all research professors we expect you to have

- Track record on research management and management of national and international projects together with academic and industrial partners
- Knowledge on national and international innovation system and funding entities as well as proven capability to raise innovation funding
- Wide international research and industrial networks
- People and substance matter leadership
- Excellent communication, presentation and networking skills
- University degree at PhD level in relevant field
- Fluent command of English.

As a person you are

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- Visionary, challenge-driven, eager to innovate and go beyond obvious
- Proactive and open-minded networker and playmaker
- Inspirational creating positive drive and getting people excited
- Motivated to share, collaborate and coach young scientists in their career
- Business-minded striving to create impact rooted in scientific excellence
- Well-organised and energetic with intrinsic “can do” - attitude

We offer

A great opportunity to develop scientific and technological excellence together with VTT’s top experts in a leading multi-disciplinary RTO and to co-create with industrial customers. You will be a part of a creative and international working environment. The tasks are versatile, independent and challenging, with support and coaching where needed. VTT is a modern, well-equipped working environment with competent, internationally oriented and highly trained personnel assisted by skilled business support professionals.

The position of the Research Professor is fixed-term for 5 years (with possibility of new 5 years period). The salary and benefits will be determined according to the salary level of corresponding positions at VTT. Applicants may also present a salary request. We may also consider more junior tenure track applicants for the vacancy.

For further information

Requested documents

The applicants are requested to enclose the following documents with the application:

- A complete curriculum vitae (including full name, date and place of birth, nationality, current residence, education and degrees awarded, linguistic skills, current and previous positions, major research funding obtained, research leadership, list of supervised PhDs and post-doctoral researchers, other academic merits, number of peer-reviewed articles, H-index, total citations and average citation per item) maximum 10 pages.
- A complete list of publications (with citations and impact factors) and copies of ten selected publications most relevant for the professorship
- Summary of research activities carried out so far (maximum two pages)
- A research plan and ambitions as a research professor (maximum five pages)

VTT uses international experts to help evaluate its applicants. All application documents should be in English.

For further information Tiina Nakari-Setälä, Vice President, Research (tiina.nakari-setala@vtt.fi)
Arto Forsberg, Vice President, Industrial biotechnology and food solutions (arto.forsberg@vtt.fi)

Don't hesitate to contact us if you want to know more of the qualifications required.

Applications: <https://www.vttresearch.com/jobs>