

PhD Research Fellow in Computational Thermal Physics of Human Body

Jobbnorge ID:

Application Deadline: 30.08.2026

Website: www.hvl.no

Scope: Full-time

Duration: Fixed-term (3 years)

Place of Work: Campus Bergen, Inndalsveien 28, 5063 Bergen, Norway

About HVL

Western Norway University of Applied Sciences (HVL) has approximately 17,000 students and is one of the largest higher education institutions in Norway. The university offers a wide range of academic programmes at Bachelor, Master, and PhD levels across five campuses: Førde, Sogndal, Bergen, Stord, and Haugesund. HVL's ambition is to strengthen academic and research environments with an increasing international presence, supported by externally funded projects and international cooperation.

Department of Mechanical Engineering and Maritime Studies

- 88 employees; over 70% hold a doctoral degree.
- 7 Bachelor's programmes and 3 Master's programmes offered.
- Strong focus on R&D in energy and computational physics.
- 5 active research groups in campus Bergen.
- Dynamic research environments in thermal physics and computational fluid dynamics.
- Strong collaboration with industry and public sectors.

Position Description

A fully funded three-year PhD position in engineering computing is available at the Department of Mechanical and Maritime Studies, Western Norway University of Applied Sciences (HVL). The position is part of the research project **ThermRisk: A Personalized Digital Human Model for Predictive Thermal Risk Assessment**. The PhD candidate will be responsible for developing a computational thermal model of the human body for the prediction of thermal risks in extreme thermal environments. The PhD candidate will enroll in the PhD programme in Computer Science: Software Engineering, Sensor Networks and Engineering Computing

Start date: 30.08.2027 (can be altered by agreement)

Duration: 3 years.

Work location: campus Bergen.

Responsibilities

- Develop an accurate thermal model of a human body accounting for bio-physical heat- and mass transport phenomena, and within a realistic geometry of the process.
- Complement collaborative experiments with numerical in-sights into expected thermal fields in the body and the surroundings.
- Validate the model against experimental data produced within ThermRisk.
- Develop a simplified workflow for the prediction of thermal risks for a given individual.
- Participate in a research exchange stay up to 6 months as an integral part of the PhD program.
- The candidate is expected to publish scientific articles in peer-reviewed journals. A minimum of three first-author publications in peer-reviewed journals is required to be eligible to submit the PhD thesis.
- As a PhD Research Fellow, you must participate in an approved PhD programme within a period of three years. The successful candidate will be enrolled in the PhD programme in Computer Science, and must meet [the enrolment requirements for the PhD programme at the Western Norway University of Applied Sciences](#). Admission to the PhD programme must be secured within two months of commencing the position. Employment is conditional on meeting the requirements for enrolment.

Qualifications

Required:

- Master's degree (or equivalent) in computational methods in applied computer science with special focus on computational thermal physics/computational fluid dynamics, or a closely related field, completed with a strong academic record (minimum B average or better). Candidates who have submitted their thesis and will complete the final examination before the interview may apply. In such cases, the application must include a draft version of the Master thesis and an official transcript of completed coursework.
- Knowledge any of the following computational packages OpenFoam, Elmer, STAR-CCM+ or similar.
- Strong written and spoken English skills.

Desired:

- Background in bioheat transfer or human thermoregulation.
- Knowledge of methods for CAD geometry repair/healing.
- Good knowledge of software engineering or solid programming skills.
- Basic background in Machine Learning.
- A record of scientific publications is considered beneficial.

Personal Qualities

- Strong collaboration and communication skills.
- Ability to work independently, take initiative, and contribute innovative ideas.
- High level of professional commitment, a structured working style, and strong execution skills.
- Motivation to defend the doctoral thesis in 3 years.

Application Requirements

Submit the following documents online:

- Cover letter detailing your motivation and a summary of research experience from your Master's studies
- Master's thesis
- Academic transcripts and degree certificates
- Contact details for 2–3 referees
- Published scientific articles and conference abstracts (if any)

Salary and Benefits

- Position code: 1017 – Doctoral Fellow position (PhD Research Fellow)
- Competitive salary according to Norwegian state pay scale
- 2% statutory pension contribution (Norwegian Public Service Pension Fund)
- Access to training, insurance, and loan schemes
- Opportunities for professional development and research collaboration

General Information

- The position is subject to Norwegian regulations for public employees.
- HVL promotes diversity, equality, and inclusion in hiring.
- Short-listed candidates may be invited to an interview and research presentation.
- Employment is conditional on obtaining valid work and residence permit.
- Employment is conditional on fulfilling the formal [admission requirements](#) and securing enrolment in the PhD programme in Computer Science.
- HVL is subject to Norwegian export control regulations.