

Description of the appointment process of a tenure track position (assistant/associate professor)

Sustainability science, assessing biodiversity impacts of products, processes, and organisations

Location: School of Energy Systems, Department of Sustainability Science,

Lahti campus

The rector has approved the description and initiated the appointment process on 29 October 2025.

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Applied statutes

Universities Act (558/2009) Government decree on universities (770/2009)

Regulations of LUT University (8 December 2022, amended 20 September 2025)

Rector's decision: Academic career tracks of the Lappeenranta–Lahti University of Technology LUT (16 January 2025)

Additional information

Further information on the duties of the professor is provided by Professor Ville Uusitalo, tel. +358 40 586 4486, <u>ville uusitalo@lut.fi</u>, and Professor Mika Horttanainen, tel. +358 40 848 5850, <u>mika.horttanainen@lut.fi</u>.

1 Background

LUT University is a challenger university aiming to conduct high-quality research that is relevant to society and industries. As a compact, agile, and highly focused university, together with its partners, LUT contributes to an economically, ecologically, and socially sustainable society in its focus areas.

We at LUT University seek solutions to global issues with its expertise in technology, business, and social sciences. LUT is a trailblazer in promoting the energy transition and the regenerative use of natural resources and helps build resilient communities, industry, and businesses through data, research, and education. LUT's campuses are in Lappeenranta and Lahti, Finland, but its impact is global.

LUT University was established in 1969. Our entrepreneurially thinking scientific and international community comprises approximately 8500 students and 1500 experts engaged in scientific research and academic education. There are more than 100 nationalities present on our modern campuses in Lappeenranta and Lahti.

In our schools – the LUT School of Energy Systems, the LUT School of Engineering Sciences, and LUT Business School – we conduct research and provide education that are internationally recognised and relevant to both society and business.

Times Higher Education (THE) has ranked LUT among the top 11 small universities across the globe in 2022. The THE university rankings present the world's top universities for interdisciplinary research.

LUT School of Energy Systems (LES)

The LUT School of Energy Systems promotes energy and resource efficiency and pursues the global decarbonisation of energy processes.

The core vision and goal of the school is to deliver leading research on low-carbon energy technologies and the associated complex, net-zero, or even carbon-negative energy systems and markets. The research and education at the school cover energy technology, electrical engineering, mechanical engineering, and sustainability science. The strategic focus areas of the school's research include sustainable energy technologies, energy conversion and storage, digital production processes in mechanical systems, and sustainability.

We are internationally recognised as a leading center of energy research, and we have an unparalleled reputation for conducting research that combines academic excellence with close ties to major Finnish industries, especially the Finnish power industry, making a distinct impact on business and society. A key principle in our research is to bridge areas from fundamental theory to empirical work, innovation, advanced technologies and processes, close-to-market products, services, and business models that can transform energy systems on an industrial scale.

Our school provides bachelor's, master's, and doctoral programmes and has Finland's largest group of researchers in the field of energy. The unit employs 39 professors and more than 400 staff members overall.

LUT Department of Sustainability Science

The sustainability science department at the LUT School of Energy Systems conducts impactful multi- and transdisciplinary research including both fundamental and applied work.

The research topics relate to ecological, social, and economic sustainability and focus on sustainability transitions in different operational contexts. The work combines the verification of global and local environmental impacts and improves the energy and resource efficiency of processes and equipment. Understanding sustainability challenges in different environments is at the core of the research field.

The development of sustainable production practices requires studying the environmental impacts of a product throughout its life cycle. We have applied and developed life cycle assessment methods for assessing the environmental impacts of products and management systems since the late 1990s. Since then, we have built strong competences in identifying the key aspects in assessing the impacts of products, systems, and services for climate change mitigation and other environmental impact purposes.

The professorship will be in the Sustainability Change Research Group at the sustainability science department. The group seeks answers to key questions related to ecological, social, and economic sustainability, such as the following:

- How can we achieve a good life for everyone within planetary boundaries?
- How will different sectors be impacted when societies move away from fossil fuel use and over-consumption or halt biodiversity loss?
- What does a just sustainability transition look like and which measures, technologies, and new ways of thinking are needed to achieve it?

2 Vacant professorship

LUT University's sustainability science department is seeking an assistant or associate professor for the university's Lahti campus. The field of the professorship is sustainability science, with a focus on assessing biodiversity impacts of products, processes, and systems. Methods for quantifying biodiversity impacts, such as global species loss related to products, processes, and companies, have developed rapidly. The numerical modelling of impacts on biodiversity is essential in establishing quantified reduction strategies and highlighting the benefits of business models that support biodiversity. Despite the recent advancements, these assessment methods still require improvement in terms of methods and data. In addition, there is a significant demand for information on and understanding of quantified biodiversity impacts and their mitigation.

The position further strengthens LUT's sustainability research unit's expertise in environmental impact assessment – particularly life cycle thinking. Biodiversity loss and climate change are interconnected environmental megatrends that threaten humanity, and they must be addressed simultaneously. Additionally, about half of global business activities depend on biodiversity, which is crucial in achieving overall sustainability.

The LUT School of Energy Systems (LES) is ideally positioned to contribute to this area, particularly through the development of low-carbon energy systems in a way that is also sustainable for biodiversity. LUT already has leading national expertise in LCA based biodiversity impact modelling, and the current vacant professorship in sustainability science will be Finland's first related to the theme.

The person appointed to the professorship must present strong research achievements and proof of successful project work and funding acquisition. In addition, the position requires teaching and supervision skills.

Applicants must have demonstrated expertise in at least two of the following fields:

 quantified biodiversity impact assessment methods considering multiple direct drivers of biodiversity loss

- different ways to collect data for biodiversity assessment
- experience in life cycle assessment and understanding of different product systems, such as energy and food

Also valued:

- high-level academic impact, project experience, the successful acquisition of funding, and leadership in the field of the professorship
- documented experience in successful teaching in a multicultural higher education environment (bachelor's, master's, and doctoral levels)
- experience in collaboration with businesses, public organisations, NGOs, and other institutions
- demonstrated ability to collaborate across disciplines

Main responsibilities

The professorship will include the following duties related to its field of study:

- planning and execution of bachelor's, master's, and doctoral programmes, including online and classroom teaching
- supervision of final theses and doctoral studies
- producing high-level international scientific publications
- acquisition of external research funding and preparation of related national and international research projects at LUT; heading these research projects when required
- generation of new knowledge relevant to the development of society and decision-making in Finland
- close collaboration and interaction with LUT's research groups
- networking and collaboration with Finnish and international universities and research institutes
- networking and research collaboration with organisations and companies in the field of the professorship
- societal interaction in the field of the professorship
- general administrative duties related to the university's operations

The position is at the assistant or associate professor level of the tenure track and will be filled through an open call for a fixed four-year term. LUT is committed to providing tenure track researchers the possibility to advance to the next level and ultimately to a full professorship, provided they meet the requirements in the promotion reviews, are suitable for the position, and conduct research that fits LUT's strategy and operation.

More information on the LUT tenure track system: https://www.lut.fi/en/research/research-career-lut/tenure-track

The work starts with a six-month trial period.

3 Qualifications

According to the administrative regulations of LUT University, adopted on 8 December 2022 (amended 20 September 2025), assistant/associate professors are required to have a doctorate, high-level scientific qualifications, experience in heading scientific research, the ability to acquire funding, the ability to provide high-level instruction based on research, the ability to supervise final theses, proof of international cooperation in their field of research, and when relevant to the duties of the position, practical experience in the field of the professorship.

Practical experience in the field is not a requirement in this position, but it is considered an advantage. Applicants should demonstrate in their application how they have collaborated with industry.

Applicants must have research and teaching merits, proof of effective research and the acquisition of external research funding, and international experience. The appointed applicant will be the immediate supervisor of a research group and may need to perform other demanding management duties assigned by the university. Therefore, related skills will be taken into consideration in the appointment, and attention will be paid to the applicants' merits as defined in LUT's tenure track system (Annex).

Under the universities decree (770/2009), persons in teaching and research positions at universities are required to master the language, Finnish or Swedish, in which they teach. According to the university regulations, section 28, foreign or naturalised Finnish citizens may be appointed to teaching or research positions even if they have not demonstrated skills in Finnish and/or Swedish. Applicants for professorships may demonstrate their language skills with a language certificate accepted by the academic council and/or in an interview.

According to the university regulations, section 28, professors are required to have the language skills needed for the successful completion of their duties.

In this position, spoken and written fluency in English is required. The appointed person is encouraged to acquire the necessary Finnish skills during the employment relationship. For that purpose, LUT offers in-house Finnish language courses to staff members. The required language skill level is defined by the professor's supervisor together with the person appointed to the professorship.

4 Applying for the position

Application

The application must specify the tenure track level applied to. The deadline for applications is indicated in the vacancy announcement. The application and material for expert assessors should be submitted through the online recruitment system mentioned in the vacancy announcement.

All application documents must be in English and in PDF format. The application must include the following documents:

- a curriculum vitae (max. 10 pages)
- a copy of the applicant's doctoral diploma
- a full list of publications, including the total number of publications in the Scopus database, the total number of citations, the h-index and Scopus ID, and equivalent information from the applicant's Google Scholar profile
- a separate list of the 10 publications selected for expert evaluation
- the 10 publications mentioned above
- a teaching portfolio or an equivalent account of the applicant's teaching qualifications, presenting courses taught by the applicant, related feedback, and the applicant's pedagogical training and teaching philosophy
- an account of the applicant's merits and activities of significance to the vacancy (max. 3 pages)
- an account of the applicant's vision on the development of education, research, and projects in the field of the professorship at LUT University (max. 3 pages)

Contact information

Applicants must give the university an email address at which they can be reached. Applicants who do not wish to be contacted by email must give a postal address at which they can be reached during the appointment process. The university prefers email.

5 Expert evaluators

Selection of experts

The experts must be impartial. Before the selection of expert evaluators, the applicants must be provided the possibility to comment on their possible disqualification.

Based on the proposal of the selection committee, the dean invites at least three experts of an international level to submit a statement on the qualifications of the applicants. The university's staff members may not be invited as expert evaluators. To the extent possible, the experts should be chosen with the applicants' fields of specialisation in mind and with a view to impartiality.

Sections 27–29 of the Administrative Procedure Act (434/2003) apply to the disqualification of an expert evaluator.

Applications forwarded to expert evaluators

The provost may limit the number of applications forwarded to expert evaluators if there are four applicants or more. At least three applications must be forwarded to the experts.

The applications may be limited to the most suitable candidates for the position in the view of the person making the decision. The provost must state grounds for the decision. The applicants will be informed if any applications are excluded from the evaluation.

Expert statements

The expert evaluators must give their statements in writing within the agreed timeframe. More specific dates will be sent to the evaluators along with instructions. In their statements, the experts must evaluate especially the scientific qualification of the applicant, and if possible, also other merits related to the professorship, and rank the applicants in order of preference.

Expert evaluators may not take part in the appointment process at a later stage.

The statements must be submitted to the university (separate instructions issued) by the deadline.

6 Interview and trial lecture

Applicants deemed qualified for the position by the experts will be invited to an interview. The provost may ask the applicants to give a public trial lecture.

7 Appointment

The selection committee makes an appointment proposal to the tenure track committee, which then makes its own proposal to the dean and provost. The dean and provost then make a joint proposal to the rector on filling the position or leaving it vacant. The proposal shall be based on the merits presented by the applicants, expert statements, possible trial lectures, and other related matters.

The evaluation of an applicant's qualifications takes into account scientific publications and other research results with scientific value, pedagogical expertise, teaching experience, teaching-related merits, a trial lecture if needed, the number of supervised dissertations, and management and leadership skills. In addition, the applicant's activity in the scientific community, success in raising research funding, scientific work abroad, and international positions of trust are considered.

The rector decides either to appoint an applicant or to leave the position vacant.

The appointment proposal may be made or let lapse even if all the experts have not submitted their statements, provided that the time limit for the statements has expired, at least three experts have submitted their statements, and the impartial treatment of the applicants is not compromised by doing so.

After the rector has made the appointment decision, an employment contract is concluded with the appointed person. If no employment contract is concluded, the rector may, based on the new proposal, make a new decision and appoint another applicant. The rector may also leave the position vacant. When the employment contract is concluded with the person appointed, the final decision is made known to all applicants.



Annex

Tenure track appointment criteria

The positions below require a doctorate in an applicable field, a research field that fits the LUT strategy (see LUT Strategy 2030), a goal-oriented plan for the work in question, teaching experience, and an up-to-date account of teaching merits (teaching portfolio).

LUT has joined the international CoARA Agreement on Reforming Research Assessment (https://coara.eu/agreement/the-agreement-full-text), which emphasises qualitative assessment in recruitments and promotions to specialist positions. This is highlighted especially in the assessment of peer-reviewed scientific publications. We require high-level publications. The quality of publications is evaluated based on their content, such as novelty and impact. High-level publications have also passed a high-level peer review, where only the best manuscripts are accepted for publication.

In the tenure track criteria below, we apply the classification of the Finnish Publication Forum (JUFO) as a guiding indicator of high-level publications (ratings 2 and 3), but applicants always select their best publications for a qualitative evaluation by experts. The applicant's work will be evaluated in light of LUT's high ethical standards for research.

In international recruitments, the evaluation must consider that applicants from beyond Finland and Europe may not have been involved in Finnish or European research projects and may not have taken into consideration the Finnish Publication Forum classification. Such applicants are evaluated in terms of their success in acquiring competitive funding through their own national channels or through international ones and in terms of impact factors of scientific journals in their own field. Only in promotion and tenure reviews are the same criteria applied to them as to Finnish persons.

The following qualifications are to be considered in the recruitment of researchers for different levels.

Assistant professor:

- o peer-reviewed scientific publications
- o contacts with the international scientific community in the field
- the ability to take part in applying for external funding in the research group and for fellowships of the Research Council of Finland
- o the ability to participate in teaching and final thesis supervision

Associate professor:

- successful publication history after the doctoral defence, target of three high-level publications a year
- o proof on international cooperation
- successful acquisition of external funding and acting as, e.g., a project manager in externally funded projects
- o applying for the Research Council of Finland's research fellow positions
- o participation in the supervision of doctoral students
- o participation in the commercialisation of research results
- o participation in teaching, the development of teaching, and the supervision of final theses