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

Hybrid structures

Location: School of Energy Systems, Lahti campus

The rector has approved the description and initiated the appointment process on 20 November 2026.

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Applied statutes

Universities Act (558/2009)
Government Decree on Universities (770/2009)

Regulations of LUT University (8 December 2022, amended 7 April 2026)
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 Development Director Kirsi Taivalantti, tel. +358 40 5177702, kirsi.taivalantti@lut.fi

1 Background

LUT University is a globally connected research university and a member of the European university alliance EULiST. With strong performance in international university rankings and extensive global partnerships, LUT offers an excellent environment for conducting impactful research and collaborating across borders to address some of the world's most pressing challenges.

LUT seeks 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.

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.

Civil Engineering at the LUT School of Energy Systems

The LUT School of Energy Systems (LES) seeks solutions to mitigate climate change, promote wind and solar power, recycle nutrients and waste, secure continuous access to clean water and energy, and conduct business sustainably. LES is internationally recognised as a leading centre of energy research and has an unparalleled reputation for conducting research that combines academic excellence with an impact on business and society.

The newest initiative within the LUT School of Energy Systems is civil engineering, with an emphasis on sustainability and safety- and resilience-related issues. In January 2025, the Ministry of Education and Culture granted LUT University the right to award bachelor's, master's, and doctoral degrees in the field of civil and construction engineering. The degree programme will be called the Degree Programme in Civil Engineering. The new department of civil engineering will be established within the LUT School of Energy Systems by January 2027. Bachelor's studies will start in August 2027 and master's studies in August 2028. Bachelor's studies will start in August 2027 and master's studies in August 2028. Doctoral studies open for applicants on 1 January 2027.

The key principle of the LUT School of Energy Systems is to bridge fundamental theory with practices, including innovation, close-to-market products, technologies, processes, or services that transform energy systems and improve people's lives globally. Since people's well-being and societal resilience depend on a sustainable and safe living environment, adding research and education in civil and construction engineering significantly strengthens the school's portfolio and influence. The goal is also to stand out from other Finnish universities in the field of civil and construction engineering.

The focus areas of the Department of Civil Engineering are technology-driven growth, business model transformation, and infrastructure resilience. They will be evolving over time and through the work of professors, but the reasoning behind them is based on LUT's overall strategic approach and existing strengths.

Innovations rooted in scientific research enable technology-driven growth in the construction industry. New materials and intelligent systems are transforming buildings and urban areas from consumption-intensive entities into energy and material reservoirs and producers. Automated construction, digitalisation, and multi-industry products and services open international business opportunities. Furthermore, real estate is one of the largest asset classes globally, and property ownership and investment are becoming increasingly international.

Amid today's sustainability challenges, the holistic nature of the built environment and the involvement of end-users creat e demand for trailblazing business models. Value chains are being redefined, and the roles of both owners and users are transforming. The viability of the evolving construction and real estate business is essential for societal well-being and sustainable solutions. On the other hand, the safety and security of critical infrastructure rely on the successful integration of complex systems. The future of societies hinges on a systemic understanding of land use, material flows, transportation, energy systems, water services, and digital networks.

Collaboration with experts, investors, and decisionmakers requires both professional competence and strategic foresight. LUT's civil engineering scholars will examine the built environment in a holistic and systematic manner.

2 Vacant professorship

Hybrid structures combine different materials or structural systems to meet performance requirements. These requirements may relate to both standard long-term use and exceptional load actions, such as earthquakes, corrosion, or fire. Sustainability goals, particularly efforts to reduce embodied energy and carbon emissions, are an increasingly important motivation for hybrid structures. Bio-based and other low-carbon materials are gaining relevance, as are connections that allow components to be dismantled and reused. The circular economy, including the reuse and recycling of materials and components, creates both opportunities and engineering challenges. Structural engineers must comply with current legislation and regulations while also contributing to research and technology-driven novel business models.

The professorship of hybrid structures will be located at the Department of Civil Engineering on LUT's Lahti campus. The work involves collaboration with other professors in the department and with LUT professors in mechanical engineering, energy technology, and sustainability science. The hybrid structures professorship is responsible for integrating fundamental Finnish and European construction principles, standards, and legislation into its research and education.

Applicants must have demonstrated expertise in at least one of the following fields of structural engineering:

- hybrid material systems, such as timber–concrete, timber–steel, or steel–concrete, including low-carbon steel and concrete
- reused, recycled, reclaimed, and bio-based materials in structural systems
- structural design and joining of connections between different materials, and design for disassembly
- hybrid structural solutions for renovation, adaptation, and extension of existing buildings
- lifecycle assessment, durability, and maintenance of structures
- seismic performance, fire safety, or structural integrity
- manufacturing, prefabrication, and offsite manufacturing
- digital models, shadows, and twins

Applicants are required to provide evidence of successful research work, the management of research projects, and cooperation with relevant research institutes, companies, and other stakeholders. Applicants must demonstrate they can commit to LUT's values and strategy and apply interdisciplinary or even transdisciplinary practices. The professorship of building physics and materials will include teaching obligations in bachelor's, master's, and doctoral programmes at the Department of Civil Engineering. Applicants may indicate their interest in administrative roles, such as head of department or head of degree programme.

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

- supervision of final theses and doctoral studies
- development and execution of bachelor's and master's programmes, including teaching starting in 2028
- producing high-level international scientific publications
- acquisition of external competitive research funding and preparation of related national and international research projects at LUT; leading these research projects when required
- production of relevant new knowledge for the specific needs of Finnish industries
- close cooperation and interaction with LUT's research groups and relevant professors
- networking and research collaboration with universities and companies to increase the international impact of LUT's activities
- networking and collaboration with partner universities, research institutes, and industry
- societal interaction in the field of construction technology
- administrative duties related to the university's operations (to be specified)

The position is at the assistant, associate, or full professor level of the tenure track system and will be filled through an open call for a fixed term of four years (assistant/associate professor) or permanently (full professor). LUT's tenure track system offers researchers a possibility to advance to a full professorship. LUT is committed to providing tenure track researchers the possibility to advance to the next level, 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 position starts with a six-month trial period.

3 Qualifications

According to the administrative regulations of LUT University, adopted on 8 December 2022 (amended 8 April 2025), assistant, associate, and full 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 experience of international networks. The appointed applicant 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 applicant's merits as defined in LUT's tenure track system (Annex).

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 language is required.

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:

- a curriculum vitae (max. 10 pages)
- a copy of the applicant's doctoral diploma (no other diplomas)
- 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 up to 10 publications submitted for expert evaluation
- the 10 above-mentioned publications as separate attachments
- a teaching portfolio or an equivalent account of the applicant's teaching qualifications, including courses taught by the applicant, related feedback, the applicant's pedagogical training and teaching philosophy, and courses that the applicant can or prefers to teach
- 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 and phone number 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

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 present grounds for her 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. More specific dates will be sent to the evaluators along with instructions. In their statement, 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 statement must be sent or e-mailed 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 decides whether the applicants need 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 the applicant's qualifications considers 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 dean's and provost's joint 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 be applied to them as to Finnish persons.

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

Assistant professor:

- peer-reviewed scientific publications
- 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
- 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
- proof on international cooperation
- successful acquisition of external funding and acting as, e.g., a project manager in externally funded projects
- applying for the Research Council of Finland’s research fellow positions
- participation in the supervision of doctoral students
- participation in the commercialisation of research results
- participation in teaching, the development of teaching and the supervision of final theses

Full professor:

- proof of the successful performance of duties

1. Scientific research
   - publications: target of three high-level publications a year; emphasis on publications from recent years
   - supervised dissertations: target of approximately one doctorate a year
   - other scientific publications, such as books and chapters
   - citations
   - important keynote/plenary presentations and scientific awards
   - editorial work in scientific journals
2. Academic teaching experience
   - high-quality teaching proven in different ways, such as feedback received
   - up-to-date teaching portfolio
   - development of teaching modules
   - supervision of final theses
3. Academic leadership
   - establishing and heading a research group
   - leadership experience and evidence of leadership and interpersonal skills
   - other leadership experience and feedback received
4. Acquisition of external funding
   - EU, ERC, Research Council of Finland, and Business Finland
5. Work in the scientific community
   - international scientific societies and expert advisory duties
   - duties with an impact on the scientific community
6. Societal impact
   - presence in societal dialogue
   - corporate funding and external funding not referred to in point 4 above
   - professional experience beyond universities
   - innovations, patents, collaboration with companies (e.g., board memberships)
   - activity in the university's stakeholder groups