



Tenure track or tenured Professor of Marine and Associated Technologies in School of Engineering



Aalto University



Aalto University

Aalto University is a multidisciplinary community of bold thinkers where science and art meet technology and business.

Aalto University is a university where research, art and education are promoted hand in hand. We are committed to identifying and solving grand societal challenges and building an innovative future. With high-quality research we aim at creating significant impact on the international scientific community, industry and business, as well as the society at large. Disciplinary excellence is combined with multidisciplinary activities, engaging both students and the local innovation ecosystem.

Aalto has six schools with nearly 11 000 students and more than 400 professors. We are an international community: more than 30% of our academic personnel have an international background.

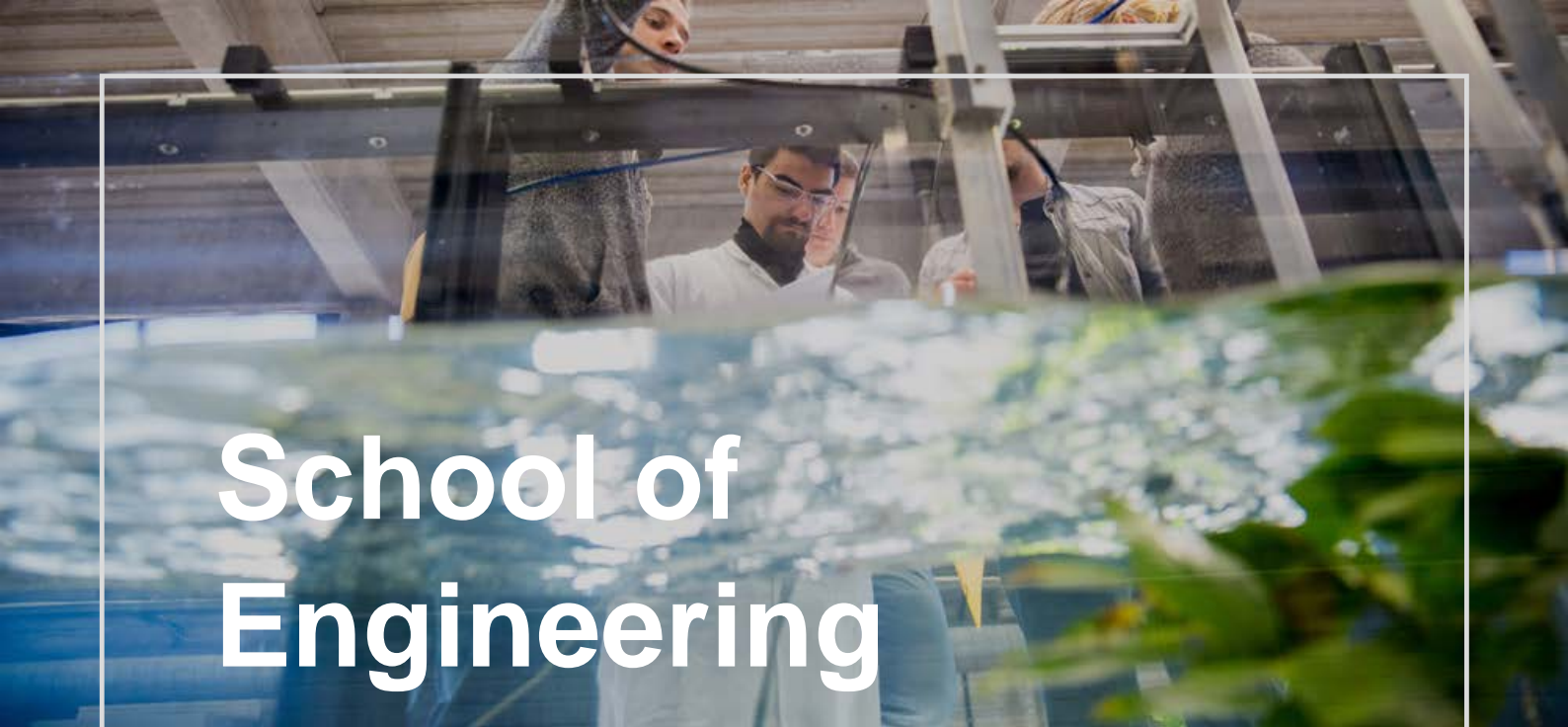
Aalto University was founded in 2010 as three leading Finnish universities, Helsinki University of Technology, the Helsinki School of Economics and the University of Art and Design Helsinki, were merged. Our campuses are located in Espoo and Helsinki, Finland.

The University campus in Espoo is developing into a unique, open innovation hub and a centre of collaboration that attracts partners from all around the world. It encourages sharing of ideas, inter-disciplinary encounters, creativity, growth and entrepreneurship. The core of the campus will be a vibrant city with versatile services and attractive places to meet.



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More info at
aalto.fi



School of Engineering

Science and Engineering

The main task of the School of Engineering is to renew technologies related to the technical industry and the built environment through scientific research, technological innovation and inspiring education. Our objective is to create new knowledge, information and solutions to serve the goals of sustainable development.

Research connecting with the society

Our research topics are highly relevant to the surrounding society, connecting theory with practice. Collaborative projects with the technological industry and the surrounding society have been a trademark for decades. Our research focus areas are Marine and Arctic Technology, Mechanics and Materials, Multidisciplinary Energy Technologies, Sustainable Built Environment, and Systems Design and Production. Our unique research facilities, e.g. Design Factory, Aalto Ice Tank, ADDLAB (Aalto Digital Design Laboratory) and enable game-changing research and education.



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The school has advanced research environment for marine technology. We also have full-scale test halls for mechanics and structural engineering. Industrial Internet Campus provide excellent infrastructure for researchers and students. Other significant parts of the infrastructure include laboratories for water engineering, materials and manufacturing engineering, transportation engineering, geoengineering and construction materials. We also have excellent complementary networks inside and outside Finland.

Educating problem solvers and innovators

Our MSc programmes reflect both the long-term research excellence of the school and the future needs of society. We seek to educate problem-solvers who have a firm grasp of fundamental principles, and who are able to innovate and drive renewal as part of multidisciplinary teams. We promote entrepreneurship and innovation, and are a home of several start-ups.

As a result of the high level of stakeholder involvement, most of our MSc graduates are employed in leadership and expert positions immediately at graduation.

More info at
eng.aalto.fi



Cutting edge research & education

About our Department

Founded in 2016, the Department of Mechanical Engineering combines expertise in its field previously found within the Department of Applied Mechanics, the Department of Engineering Design and Production, and the Department of Energy Technology.

The Department's main research areas besides marine and arctic technology are engineering design, engineering materials and digital production and energy technology. The Department provides education in bachelor, master's and doctoral programs.

Currently, the department has 30 professors together with lecturers, post-doctoral researchers, doctoral students, and technical staff. In total, the number of personnel is about 250.

The Marine and Arctic Technology Research Group

We focus on the behaviour of ships and structures in normal and extreme environments. We do our

research by considering the safety of maritime transportation, as well as the experiences the marine environment can offer to cruise vessel passengers. Marine and arctic technology group investigates the responses and strength of ships in a complex physical environment where ice- and wave-induced loads are present. We also investigate the system-level issues at the scales of shipping systems and fleets as well as individual ships and their subsystems. The focus is on passenger and ice-going ships and on autonomous ships.

The core ideas of the research are to ensure safety, to enable sustainability through advanced solutions and to focus on the first principles of applied mechanics (e.g. hydrodynamics and structures), statistical methods and systems engineering.

The group has excellent international and national networks, including the Joint Research Center of Excellence for Arctic Shipping and Operations (CEARCTIC) funded by Lloyd's Register Foundation in London and led by Aalto University.

More info at
ene.aalto.fi/en



Professor of Marine and Associated Technologies

Description and main tasks

We are seeking talented individuals who are interested in an excellent opportunity to pursue a successful scientific career and to renew marine technology globally. The position(s) can be filled at any level of Aalto Tenure Track system (including tenured positions), but we aim to fill one position for early career stage (assistant professor) and the other on later stage (associate or full professor),

We wish the new professor to further strengthen the research and education in marine technology. Future research areas for this position could be for example, but not limited to: systems engineering and product development; user-centered and experience-based design; human factors and risk-based design; artificial intelligence and big data; adaptivity on navigating in hazardous and sensitive conditions; uncertainty and consequence evaluations; fluid mechanics and hydrodynamics; sustainable solutions for specialized vessels such as passenger, ice-breaking and autonomous,.

What we expect

Applicants are expected to have a doctoral degree. Experience in leading a research group, and success in competitive research funding will be considered as an advantage. The applicants will be reviewed on the basis of their excellence in research, teaching and academic leadership and activity in scientific community.

A person at any level of the academic tenure track system in Aalto University is expected to perform world-class research, to teach, supervise and otherwise advance academic education, to be an active member of the international scientific community, and to exhibit academic leadership. Career advances on the tenure track are based on scheduled performance assessments, which take into account the candidate's merits in all these areas.

How to apply

Apply and get more information [here](#)

For the application, please include your:

- Curriculum Vitae
- List of publications (with the five (5) most significant publications highlighted)
- Research statement describing past research and plans for future research at Aalto.
- Teaching portfolio
- Names, positions, affiliations and e-mail addresses of five senior research leaders available for providing recommendation letters
- Any other relevant evidence of qualifications

Application deadline

April 15th, 2019

For further questions, you may contact

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HEAD OF DEPARTMENT JOUNI PARTANEN

E-mail Jouni.Partanen@aalto.fi

Aalto University follows the salary system of Finnish universities, but applicants may also provide salary requirements.



Working at Aalto University

Why join us?

Established in 2010 as a merger of three leading Finnish Universities, we are both **challenger of the old, and traditional with strong history** and legacy.

Our unique combination of fields in **art and design, technology and business enable multidisciplinary** and finding clever solutions for the world's most wicked problems in the interfaces of these fields.

We aim for **societal impact**, educating game changers to drive sustainability.

We enjoy working at our evolving **collaborative campus close to the heart of Helsinki**, with good connections, great architecture and amazing nature.

We are **international and diverse**: more than 35 % of our faculty comes from outside of Finland. Our working environment is multicultural, widely English-speaking and its easy to settle in, wherever you come from.

We have strong [academic standing and reputation in our key fields](#) – Aalto University is among top 10 of New Universities in the world (QS ranking).

Our **well-functioning and fair Tenure Track career system** enables building a successful academic career, providing support for fulfilling your professional ambitions.



Living in Finland

Finland is [among the best countries in the world](#) according to many quality of life indicators, including being the [happiest country in the world \(UN study 2018\)](#).

We are humble people, but dare to say we have **one of the most advanced education systems in the world**.

The Nordic values of **equality and co-operation** are rooted deeply into our society. We are one of the world's top countries in press freedom and consider the many voices in our society a strength.

With high investments in R&D, a strong innovation culture, open data and advanced state of digitalization, we are a nation of **innovation and entrepreneurship**.

Gender equality, flexibility and low hierarchy are at the core of our **Nordic working environment**. Professional ambitions can be combined with a fulfilling personal life.

We are one of the world's most **reliable and stable** nations with low levels of corruption and high level of safety. We are proud to provide exceptionally high standards of social security and healthcare, financed by the state.

Having four distinct seasons, clean air and thousands of lakes, we are some nature-loving people and take good care of our **unique environment**. We enjoy our midnight sun in the summer and northern lights in the winter.

Finnish language is known to be a bit on the complicated side, but don't worry, we Finns are fluent in English, and have an **international mindset**.

We have **wide and reliable transport networks**, with Helsinki airport serving over 100 direct destinations. The comprehensive public transport makes it easy to commute. Our campus is situated within a 10 minute metro ride from the heart of Helsinki.

Want to live in the best country in the world?

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**Aalto University –
a community of
game changers
*aalto.fi***



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