Tampere University and Tampere University of Applied Sciences create a unique environment for multidisciplinary, inspirational and high-impact research and education. Our universities community has its competitive edges in technology, health and society. www.tuni.fi/en

**Mechatronics research group** at Faculty of Engineering and Natural Sciences is looking for a **Researcher**. Our group develops computational and empirical design and life-cycle optimization methods for sustainable future machinery. We apply the developed methods together with our extensive international collaboration network to questions related to heavy duty autonomous systems (underwater vehicles, surface vessels, aerial vehicles, autonomous working machinery etc.), lifecycle and reliability engineering and aircraft engineering. Our research and development projects are very challenging and rewarding projects which usually lead to real scale pilot systems or prototypes and always include testing in real operational environments.

**Job description**

Open position is in projects which research and develop key technology areas of modern-day intelligent machinery. Projects are related to

- Autonomous surface vessels and underwater vehicles
- Condition monitoring and digital twins of complex machine systems

Some participation in teaching at the mechanical engineering study-program is possible. The job requires occasional traveling to international conferences to disseminate the research results. International research visits to other universities or research institutes are also possible and encouraged.

**Requirements**

Successful candidates have studied engineering in a field related to mechanical or automation engineering and has a strong motivation to learn more. Some key areas of expertise of suitable candidates would be:

- Guidance, navigation, and control (ROS2 based systems)
- Robotic perception systems
Finite element analysis and multibody system modelling and simulations
Modeling and simulation (e.g. with Matlab Simulink, Gazebo, Vortex Studio etc.)
Measurement, data acquisition, sensor technology
Data analytics, performance analytics
Condition monitoring

Also, knowledge in all fields related to mechatronics are considered an advantage.

The position also requires:

• Good English language skills
• Ability to conduct systematic scientific research
• Ability to work in a team and communicate clearly in a multidisciplinary and international environment

We value interdisciplinarity, as it allows you to expand your research network and exposes you to new perspectives and ideas to solve complex research problems and pursue novel research findings. We are strongly committed to the highest level of scientific research and the provision of high-quality doctoral education.

Tampere University is a unique, multidisciplinary and boldly forward-looking, evolving community. Our values are openness, diversity, responsibility, courage, critical thinking, erudition, and learner-centeredness. We hope that you can embrace these values and promote them in your work.

We offer

The position will be filled for a fixed-term period of 2 years. The starting date will be mutually agreed. A trial period of six months applies to all our new employees.

The salary will be based on both the job requirements and the employee's personal performance in accordance with the salary system of Finnish universities. According to the criteria applied to teaching and research staff, the position of a Researcher is placed on level 2—4 of the job requirements scale.

We offer a wide range of staff benefits, such as occupational health care, flexible working hours, excellent sports facilities on campus and several restaurants and cafés on campus with staff discounts. Please read more about working at Tampere University. Our HR services offer their help with e.g. official issues in settling in Finland and Tampere.

Tampere region is one of the fastest growing city areas in Finland. Tampere is the largest inland city in the Nordic countries and a traditional center of the Finnish industry. Today, the city is best known for its high-tech expertise and extensive knowhow in various fields.

How to apply

The following documents should accompany your application:
• CV
• Free-form application letter
• PDF copy of your Master's and Bachelor's degree certificate, including transcripts of all university records and their English translations (Finnish and Swedish certificates are also accepted).
• Other relevant documents that support your application

Applicants may be subjected to security clearance vetting

For further information, please contact:

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